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ABSTRACT

The objective of this essay and bibliography is to assist information and library professionals, as well as individuals from other disciplines, to gain some insights into the major themes and issues of social gerontology. The focus is on the role of information and data in gerontological research, public policy, service delivery, and information and library services, with emphasis on individual rather than societal aging. The bibliography is divided into two parts. Part one discusses background issues in social gerontology, including concepts and development, research, public policy, human services and advocacy, and education and training. Part two examines the role of information in social gerontology with emphasis on information for older persons, information for those who work with the elderly, and international issues. This is not primarily an Educational Resources Information Center (ERIC) bibliography, although almost half of the citations are either ERIC documents announced in Resources in Education (RIE) or journal articles reviewed in Current Index to Journals in Education (CIJE). A list of bibliographic sources is included. (Author/CWM)

INFORMATION IN SOCIAL GERONTOLOGY

by

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INFORMATION IN SOCIAL GERONTOLOGY

Introduction

Eric Hoffer said in his book Reflections on the Human Condition: "...that which is unique and worthwhile in us makes itself felt only in flashes. If we do not know how to catch and savor the flashes, we are without growth and exhilaration." The following brief essay will attempt nothing more than to catch some of the flashes that indicate issues and trends in social gerontology and the role of information in this field.

The objective of this bibliography is to assist information and library professionals, as well as individuals from other disciplines who are new to the field of social gerontology, to gain some insights into the major themes and issues. The focus is on the role of information and data in gerontological research, public policy and service delivery, and on information and library services to older persons. Individual aging is considered rather than societal aging.

Some limitations must be pointed out. This is not a bibliography of sources on special topics related to the elderly, such as health, housing, nutrition, or transportation. Nor was there any attempt to provide a guide to general reference sources such as bibliographies or directories.

The bibliography is divided into two parts: (I) Background including (A) Concepts and development, (B) Research in social gerontology, (C) Public policy, human services and advocacy, (D) Education and training; and (II) The Role of information including (A) Information for older persons, (B) Information for those who work with the elderly, (C) International issues.

This is not primarily an ERIC bibliography, although almost half of the citations are either documents announced in Resources in Education (RIE) or journal articles reviewed in Current Index to Journals in Education (CIJE). All of the sources cited were selected to assist the users of this bibliography to better understand the field of social gerontology and its information needs and resources.

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While citations with ED numbers are not available through EDRS these journals are widely available in libraries, and copies of articles from a number of the journals indexed in CIJE are now available through University Microfilms. Publication information and journal names are provided in CIJE beginning with the September 1977 issue.

I. Background

A. Concepts and Development

"Gerōn" in Greek means old man. Human aging is the process of the cumulative changes that occur during the life cycle of the human individual; the aging of societies refers to demographic changes and to sociocultural changes. Gerontology is a branch of knowledge dealing with these processes and changes. Since there is no specific determination of when age-related changes take place in the individual, gerontology in its broad sense can be defined as the science of life-span changes.

Social gerontology, a subfield of gerontology, was described by one of its founders as "an organized field of knowledge concerned with the behavioral aspects of aging in the individual, with aging as a social phenomenon and with the interrelationships between the two" (Tibbitts, 1960, p. 22). The study of the ways a society organizes itself to treat its older members must be distinguished from the study of the aging of whole societies. It might also be useful to define geriatrics, even though this bibliography does not relate to that field: this term refers to the branch of biomedical science which deals with the problems and diseases of old people and aging individuals.

Information scientists and practitioners face a formidable challenge in approaching the information needs and resources of a field where academic concepts and professional practices have their roots in a wide array of disciplines and professions. Paillat (1961) conveyed this sense of diversity when he stated that "gerontology is concerned, at one and the same time, with a situation and a process, with the aging individual and with the group

to which he belongs." It therefore calls for the cooperation of doctors and biologists, psychologists and psychiatrists, demographers and specialists from the social sciences. Furthermore, said Paillat this list is in no way exhaustive and should also include, for example, economists, for global or sector analyses, specialists in occupational matters including competent representatives of trade unions and employers, actuaries, financiers, etc." (p. 602).

Several concerns become obvious from the literature: (1) aging is a universal phenomenon and a society's response to it is culture-bound. Policies and institutional arrangements depend on local philosophies and values; (2) any attempt to alleviate age-related problems requires coordinated research, policies, services and life-long learning; (3) problems can be investigated and solutions attempted only by teams of specialists from various fields; (4) specialists need to assume the unifying values and approaches of gerontology in order to integrate their knowledge and action; (5) urgent problems demand the on-going translation of research findings into policy formulation and practice; (6) it is necessary to further a two-way information flow between the older population on the one hand, and scientists, policy makers and service deliverers on the other, in order to avoid stereotyping the elderly as passive "problems."

Where does social gerontology have its beginnings? Bailey (1976) attributed the philosophical parentage of the field to Carl Jung, Charlotte Bühler and Erik Erikson. Bailey's article forms a bridge between the universal theme of the uniqueness and

fragility of human life and pragmatic social and educational issues. Gerontology is viewed as a discipline focussing on the interrelatedness of all life-span changes: "The quality of early nurture mightily affects the future organism and personality; and...a number of highly predictable life-cycle adjustments of the sort identified by Erikson are traumatic for large numbers of people" (p. 35). Bailey proposes life-long learning as a creative resource for people to cope with the changes and age-related traumas of life.

This existential life-span vision, however, was not the underlying motivation of most age-related studies that represented the forerunners of current social gerontological investigations. From the 1920's to the 1940's, inventory-type studies on the social and economic aspects of aging were undertaken in several countries. Tibbitts (1960) gave an overview of the social trends that accounted for this interest: scientific and technological progress, growth in average life-expectancy, increased visibility of the aged and their changing position in society, shifts in the role of the family, new value orientations, and the need for more systematic knowledge to undergird social policies.

In the 1940's, age-related studies advanced along parallel lines in several fields. This period marked the institutionalization of discipline-based gerontological research. Biologists established the American Research Club on Aging; the American Psychological Association initiated a Division of Later Maturity and Old Age; and the Committee on Social Adjustment in Old Age of the Social Science Research Council began its work. With the

establishment of the Gerontological Society in 1945 and the launching of the Journal of Gerontology the next year, the process of integrating the work in various disciplines began. However, separate disciplinary orientations remained strong and were symbolized by the inception of two divisions in the Gerontological Society in 1952: The Division of Psychology and Social Science and the Division of Biomedical Sciences.

In recent decades, with the growth of governmental interest in aging, the complexity of institutions, research programs and service arrangements increased to the point of appearing chaotic. Information users, who want to reach beyond the published literature in order to tap the organizational resources, semi-published reports and unpublished data files in social gerontology, need an awareness of research activities, trends in service delivery and the overriding reality of politics.

B. Research in Social Gerontology

In 1946, the first issue of the Journal of Gerontology gave an account of social and economic issues that needed research attention. The question of the lack of systematized theoretical knowledge was raised. In the ensuing decades, investigations progressed at several universities including Chicago, Connecticut, Duke, Iowa, Michigan and Syracuse. Korenchevsky (1950) provided an early work on research needs and the ways and means to meet them. Because of the contributions of many disciplines, the interdisciplinary systemization of existing theories presented a major problem; the task was undertaken at the end of the 1950's.

The following synthesizing works may allow information professionals to gain a perspective of social gerontology: Birren (1959); Tibbitts (1960); Burgess (1960); and Korenchevsky (1961).

Between the early 1960's and the present, research activity in social gerontology has been increasing in scope and diversity. Recently, the publication of a new set of handbooks, supported by the Administration on Aging, achieved, at least partially, the organization, evaluation and interpretation of the research data and theories of the last two decades. Although these handbooks are not directly concerned with gerontological information, they contain several chapters that have implications for library and information services. The Handbook of the Psychology of Aging (Birren and Schaie, 1977) sheds light on some aspects of information processing by the older individual in sections treating "Motivation and Activity," "Memory," "Learning," "Visual Perception and Communication," "Auditory Perception and Communication," "Intellectual Abilities," "Problem Solving," and "Morale, Careers and Personal Potentials." The Handbook of Aging and the Social Sciences (Binstock and Shanas, 1976) is another vital source for concepts, state-of-the-art reviews, and bibliographies of studies. Of special importance for information professionals are the chapters on "Aging and the Law," "The Economy and the Aged," "Political Systems and Aging," "Social Networks and Isolation," "Social Services," "Health and the Organization of Health Resources," and "World-wide Population Change." Even The Handbook of the Biology of Aging (Finch and Hayflick, 1977) comprises several interdisciplinary themes.

The literature of social gerontology indicates that the role of information in the entire research process--from the identification of researchable problems to the dissemination and utilization of findings--is being readily acknowledged. In respect to research diffusion, two directions may be distinguished: (1) efforts to bridge basic and applied research and the transfer of results to policy makers, practitioners and advocates; and (2) the furthering of policy research and evaluation research directly applicable to age-related social problems. Riley (1969) published a fundamental set of essays on research implementation in various service professions working with the elderly. In the same year, the Committee on Research and Development Goals of the Gerontological Society recommended that "...it will be necessary...to accumulate vast amounts of information about the elderly themselves and about those approaching old age" (Havighurst, 1969, p. 7).

While these sources spoke of primary and secondary data, the need for documentation was also acknowledged. At the First International Course in Social Gerontology in Lisbon, Bergman (1970) stressed the importance of communicating research through gerontological excerpta and abstracts, bulletins, university-based information centers and national information banks. The International Center of Social Gerontology proposed as an agenda (1) the establishment of a structure for storing available international research information and making it available to researchers anywhere, (2) collecting and making available information on on-going research, (3) collecting and disseminating information on intended research, and (4) identification of research problems (Bergman, 1970, p. 108).

In 1974, the nation's concern for gerontological research was demonstrated by the creation of the National Institute on Aging. A policy statement indicating an interdisciplinary direction and an applied orientation was given by NIA's director Butler (1977): "To increase their opportunities for more meaningful later years, research on aging has shifted from its exclusive disease orientation toward a more comprehensive investigation of the normal physiological changes with age, the behavioral constitution of the aged, and the social, cultural, and economic environment in which the elderly live" (p. 8). The significant role of information was recently emphasized by Butler (1978). On another occasion, speaking of the communication and information priorities of gerontology, he stated, "We need information with evaluative features" (p. 16).

Three publications should be mentioned which will help information professionals to become aware of gerontological research trends and related information needs. Shanas (1975) provided a critical review of the contributions of the social and behavioral sciences and indicated a need for cross-national research. Butler and Spieth (1977) reported on trends in research training, and Borland (1978) reviewed studies of research on middle age. The interdisciplinary symposia at the Gerontological Society's annual meetings have both an exploratory and synthesizing function relating to research. Meeting papers, identifiable through published abstracts, may be obtained from the authors.

The problem of breaching the gap between gerontological research findings and their use by policy makers and practitioners has been acknowledged by several current programs. Examples are

the Research Dissemination and Utilization Program of the Social Policy Laboratory of the Andrus Gerontology Center at the University of Southern California, and the Knowledge Utilization Program at the University of Denver, Denver Research Institute. At the latter institution, video packages have been prepared for public libraries on topics such as barrier-free access to buildings, services to the homebound, and health and legal issues.

There are themes underlying research in social gerontology, especially on human longevity, that are of universal concern. Ethical and philosophical issues involving death and self-determination, the potential extension of lifespan and its social consequences, the quality of life in old age, research on older subjects, patients' rights, and the multiple jeopardy of minority elderly are examples. A significant series of value-oriented papers resulted from a conference held at the University of Chicago with the support of the National Science Foundation. Biogerontologists, ethicists, philosophers and physicians spoke to the ethical aspects of aging policy decisions (U.S. National Science Foundation, 1976 and 1977).

C. Public Policy, Human Services and Advocacy

Because of the increasing role of governments in the planning, financing and regulating of various aspects of life, policy alternatives are crucial issues for all segments of society. Public policies reflect the value judgments and resource allocations of a society. A study of age-related legislation, programs, and trends in advocacy in the United States over the last decades will assist in better understanding the realities of old age politics.

Gold (1974) identified six roles of the federal government that are focussed on improving the life of the elderly: assuring an adequate income, noncash benefits, the protection of individual rights, research, social services and the coordination of intergovernmental programs (p. 56). Views of the soundness and humaneness of age-segregated programs vary, but there is agreement among old and young that the complexity of agencies and programs calls for more effective information about their availability and nature. Librarians and other information personnel concerned with human service delivery to older persons can get a realistic picture of the "bewildering maze of bureaucracy" from the testimony at the Congressional hearing reported in Fragmentation of Services for the Elderly (U.S. House., Select Committee on Aging, 1977).

At the White House Conference on Aging in 1961, recommendations were made by the gerontological community concerning income, health, nutrition, housing, transportation, employment and retirement, education, roles and activities, and spiritual well-being. Ten years later, at the second White House Conference, physical fitness, the role of governmental and non-governmental organizations, planning, research and demonstration, and facilities, programs, and services were added to the former agenda of national concerns. Special sessions dealt with minority aging. The conferences focussed on both scientific aspects and strategies of action.

Major pieces of legislation included the Social Security Act of 1935 and its amendments and the Older Americans Act of 1965 and amendments. Other measures and their impact on the elderly, for instance, the Equal Employment and the Pension Reform Act, merit

studying. Information about federal and state legislative developments, bill drafting, public hearings and appropriations that will affect programs might be obtained from the Senate Special Committee on Aging, the House Select Committee on Aging, the State Offices on Aging and the local Area Agencies on Aging. A good overview is provided by "A Guide to Organizations, Agencies, and Federal Programs for Older Americans" (Keebler, 1978). The National Clearinghouse on Aging in the Administration on Aging, the principal federal organization for carrying out programs and coordinating resources, has announced the development of a nationwide information system: Service Center for Aging Information (SCAN), described in a further section of this essay.

The ever increasing gap between the needs of the elderly population and measures to meet these needs in a way that would preserve the self-reliance and dignity of individuals, has given rise to a strong advocacy trend involving old age associations (Pratt, 1974). A flow of recent publications on citizen participation in aging policy issues assists information professionals to function effectively in this essentially political climate (Thomas and others, 1977; Horn and Griesel, 1977; Dancey, Jr., 1977; Baumhover and Jones, 1977). Demone (1978) has synthesized recent theories and practices in introducing change in human service policy and delivery.

In a well documented study, Hudson (1978) reported that public costs and competitive demands from other societal sectors are jeopardizing the current status of the aged as participants in, as well as beneficiaries of, policy making. In the face of economic and

social pressures, the activity of advocacy groups and older persons' associations can be expected to intensify. Since policy making involves priorities, bargaining, decisions, and counteraction, it is well to remember that information and data are essential components of the process. Gerontological scientists and advocates might disagree on many points, but they share an unequivocal respect for knowledge as a social force.

This premise was demonstrated by an exchange of open letters between Margaret (Maggie) E. Kuhn (1978), National Convener of the Gray Panthers, and George L. Maddox (1978), President of the Gerontological Society. Arguing for an advocacy posture on part of scientists, Kuhn stated: "There is an urgent need for new research methods, particularly to demonstrate the interaction between the individual and society and to make full use of the experience of old people to form the widest possible data base for radical social analysis" (p. 423). Maddox replied: "...the primary and proper commitment of the Gerontological Society, is, in my view, to excellence in gerontological science and training. This commitment to science includes knowledge building, knowledge dissemination, and knowledge implementation" (p. 426). The role of communicating knowledge between older individuals, scientists, advocates, and policy makers properly falls to the information profession.

D. Education and Training

Educational gerontology has developed from two relatively new fields--adult education and social gerontology--and is described differently by various observers. Peterson (1976) outlines three

major aspects: (1) educational endeavors designed for persons who are middle-aged and older, (2) educational programs for a general or specific public about aging, and (3) educational preparation of persons who are, or intend to be, employed in serving older people in a professional capacity. Ehrlich and Ehrlich (1976), on the other hand, describe a four-part educational framework in which higher-learning institutions have responsibilities (1) to provide appropriate learning opportunities for middle-aged and elderly consumers in order to broaden living options in late life, i.e., new careers and lifetime learning; (2) to provide education about the life cycle and the meaning of aging as part of all levels of the educational system; (3) to provide continuing education for service practitioners to continually upgrade their potential as well as to entice new workers into the field; and (4) to develop new knowledge, initiate new services, and raise standards within the service community through demonstration and research projects.

Educational gerontology received the height of national attention at the 1971 White House Conference on Aging. The Education Section, with 269 delegates, produced 23 recommendations responding to such questions as "what basis should be used in allocating financial and manpower resources for education and aging; what populations among the aged should receive special attention; what types of services should be developed; what are some ways of effectively providing these services" (White House Conference on Aging, 1973, p. 1).

Butler and Spieth (1977) projected that in 1982 NIA will "be a medium-sized institute within the National Institutes of Health,

with a budget in the neighborhood of $90 million." They envision "NIA as providing support for several thousand senior researchers, research associates, and graduate-student assistants. In addition, NIA hopes to be able to support 500 trainees and postdoctoral fellows per year within a few years" (p. 112).

Spinetta and Hicky (1975) "see more courses, seminars, and programs dedicated to reversing professional obsolescence, to initiating second careers, and to the fulfillment of self. But even beyond that we see the university itself--and much of what has traditionally been called higher education--propelled into change" (p. 431). The authors see change in the student population, with experienced adults returning to school who are "wise enough to ask the right questions of higher education and willing enough to accept a more objective approach to the pursuit of the right answers. The interactional dialogue, then, retains both common sense and science." Academic gerontologists, therefore, "who have a professional and scientific knowledge of adults and development throughout life, [have] to take a leadership role in reshaping higher education's response."

The literature on life-long education overwhelmingly endorses adult education activities in which informal, non-credit, short programs are offered to older persons to prepare these individuals for retirement. Universities see a growing responsibility to provide information that will update the older person's knowledge base in coping with a changing society. The age structure of society, the increasing educational level, career pattern changes, the expanding role of women and changed attitudes towards education are

all responsible for a greater awareness of universities to extend enrollment to older persons (Peterson, 1976).

As co-chairman of the Education Section of the 1971 White House Conference on Aging, McClusky (1971) summed up the purpose of education for elderly individuals in one statement: "...education should be regarded as a program category to which all other aspects of living in the later years should be related" (p. 3). In his address, Dr. McClusky points out several facts about older persons and education: (1) in any random sample of the population, the oldest are the most poorly educated; (2) research presents no evidence that as a person ages his/her ability to learn becomes a barrier; (3) however, older persons do not perceive education as being particularly relevant to their interests and needs and apparently regard education as being separate and different from other service programs with which they are more familiar. McClusky goes on to point out that education "should be regarded as a principal component of all the services designed to meet the necessities of living [and that] education for older persons is an investment by society in resource development" (pp. 3 and 5). The Section on Education Delegates lastly recommended that education for aging appear as a separate commitment in statements of purpose and as a line item in budgets and urged the Administration on Aging and Office of Education to take leadership in the field of education for the aging.

There has been a trend in this country for organizations to provide two kinds of educational programs to the elderly: pre-retirement planning and life-long learning. The first usually

takes the form of informal education through organizations of older persons, churches and synagogues, labor unions, farm and business organizations, civic associations, libraries, community centers or museums. Life-long learning usually occurs formally through private and public schools, colleges and universities and radio and television broadcasting with a current interest in cable television programming. The growth of community colleges in recent years has provided older persons with adult education and a link to community services. Community schools provide services in terms of needs, often involving adult learners in program development and participation (White House Conference on Aging, 1971, p. 5).

Many exciting education programs for professional and elderly individuals have developed as a result of the 1971 White House Conference on Aging. One such program, oriented towards practitioners and sponsored by the National Institute of Mental Health's (NIMH) Continuing Education Branch, set up a national mental health continuing education program for personnel employed in long-term care facilities. The purpose of the program was "to demonstrate a linkage between mental health, continuing education, and long-term care resources to increase the knowledge and skills of caregivers, based on the assumption that the training would improve the psychosocial aspects of caregiving." A final report details various models at colleges and universities around the country (NIMH, 1975).

Syracuse University prepared "An Instructor's Handbook for the Development of a Basic Course in Gerontology," under a contract with

the New York State Office for the Aging in 1975. This handbook was "designed to allow organizations/institutions to develop a basic course in gerontology relative to their own individual needs. It is intended to provide a method and a wide variety of materials from which an instructor/trainer/teacher can select in order to design a course suitable for his/her own setting. In this way, instruction can be individualized for a wide variety of audiences... The settings in which instruction would be provided are also very diverse, including two year colleges, four year colleges, professional training programs, inservice training in or relating to community based programs for the elderly, continuing education and extension programs and, possibly, public television" (Syracuse University, 1975. p. 1).

"How to Get Those 'Extras' Out of Retirement Living--a Course of Study Designed for Public School Continuing Education Programs" presents a course of study "intended to make older persons more knowledgeable about programs and services which, if used, could add appreciably to their well being" (New York State Education Department, 1975). The Institute of Lifetime Learning in Washington, D.C., provides "non-threatening education" for older adults in which "progress is based on student abilities rather than on curriculum." There are traditional lectures and discussions, informal seminars, and short courses with no assigned homework (Blake, 1969).

The future of education and training looks promising; the 1978 amendments to the Older Americans Act "require the Commissioner on Aging to develop and implement a national manpower policy for the field of aging, a policy that reflects present and future needs for

trained personnel in all programs servicing the elderly. The manpower policy is to be implemented through the training and education programs under Title IV" (Administration on Aging, 1978). During the 1979 fiscal year, AOA plans to support about 75 grant awards to institutions which in turn will provide approximately 800 students with financial assistance. AOA has also outlined special initiatives in education and training. These include: recruitment of minority students into programs on aging at undergraduate and graduate levels; fellowships to minority social scientists in gerontological research; and geriatric residency programs for medical students (approximately $450,000 is to be budgeted for about six projects).

For a comprehensive overview of educational gerontology in higher education C. Bolton has developed a study, the National Gerontology Education Data System project, involving a mailed survey of 400 post-secondary education institutions offering credit instruction in gerontology. The ensuing paper, "Gerontology in Higher Education--the State of the Field," consists of analyses of detailed information including (1) unit information--credentials offered, structure and support curriculum and student information; and (2) faculty information--years of teaching gerontological courses, courses taught, affiliation with professional organizations, degree and rank, and publications (University of Nebraska, November 1977).

Similarly, Betsy Sprouse edited a National Directory of Educational Programs in Gerontology, "designed to inform educators, professionals, and students of the nature and location of

gerontology-related courses, degree programs, research programs, educational services, and training programs...Information has been collected on the gerontological activities of 1,275 colleges and universities in the United States" (Association for Gerontology in Higher Education, 1978, c1976).

In developing any type of educational program, for professionals or for the elderly directly, Howard McClusky gently reminds us that we all tend to focus on the plight rather than the opportunities of persons in the later years. "In fact," Dr. McClusky writes, "education is itself essentially an affirmative enterprise...thus, because of its faith in the learning ability of older persons...education, in contrast with other areas in the field of aging, can be invested with a climate of optimism..." (White House Conference on Aging, 1971, p. 2).

The Role of Information in Social Gerontology

Our knowledge-oriented society places a high value on information both as a commodity and as the process of being informed. Of these two aspects, the process--the communication, transfer and utilization of information--is the more dynamic view of information as a social force. The literature of problem solving and decision making deals with numerous, often ill-defined problems in the application of information and data by policy makers, managers and practitioners. In the light of economic pressures and growing responsibilities, more and more human service planners and deliverers turn to the use of planning data and evaluation. This notion is borne out by research and programs reported in the publications of Project SHARE in the Department of Health,

Education and Welfare (Bowers and Bowers, 1977). Older individuals, especially the poor and the isolated, are increasingly alienated by the maze of social changes and institutional arrangements. Their efforts to find any information that would help them to cope with everyday problems are frustrating and often defeating experiences.

In the following, examples of relevant documents will be reviewed in two broad categories: (1) information for older persons, encompassing "coping" information needed to manage one's life successfully, and (2) information for those who work with the elderly. This latter category includes information and data for research scientists, advocates and policy makers (Brindle and Dosa, 1978).

A. Information for Older Persons

1. Communication and Information

An understanding of the communication patterns and creative processes of the elderly is a necessary background for the development of relevant information and library services. Communication barriers include stereotyped images of the elderly, generation gap, isolation, lack of opportunity, obsolescence, and physiological and psychological handicaps. There are spiritual, medical, and legal considerations to be taken into account by the families and support networks of the elderly. Also, there are largely unexploited individual and community resources to facilitate the communication process (Oyer and Oyer, 1976). Communication research in this area has considerable relevance to the amelioration of problems (Carmichael, 1976).

Beattie (1975) casts a challenging perspective for the information profession: "...those responsible for the development and utilization of information and the design of communication technology will be instrumental in building new identities and new opportunities for older persons" (p. 23). The creativity of the aged is a precious human resource that needs to be fostered, and psychological investigations of individual styles of thinking can provide insights and understanding (Alpaugh and others, 1976).

Research projects and service programs that have been developed to facilitate the information acquisition of older people are characterized by diversity in philosophical and technological approaches. A theoretical framework for such programs was presented by Rue (1973), who posited the importance of adult developmental learning via continuous informational opportunities to counter the stigma of "social obsolescence." Kent and Rush (1975) studied the impact that the print and electronic media orientation of older persons has upon their knowledge of public affairs.

A review of methods to facilitate human relations and interpersonal communication of older persons in order to help them to share and solve problems was provided by Morrison (1976). Today, the premise of helping older persons to adjust to their environment is controversial, and society's responsibility to adjust environments to older people is stressed (Kuhn, 1978).

The minority aged have multiple coping information needs that are aggravated by economic and social hardships (The Western

Regional Hispanic Conference on Aging, 1976; Brindle and Dosa, 1978). Another population experiencing hardship due to isolation and lack of communication flow is the rural elderly. Experiments with the use of telephone and radio are described, and new concepts are examined by a collection of symposium papers (Best and Schmidt, 1977).

The provision of opportunities to acquire coping information by the elderly occurs in many forms. Fisher (1977) describes a Back-to-School Survival Skills Program designed to help older adults deal with problems they may encounter. Model community programs to make available recreational services to the disabled and to offer information relevant to retirement planning, leisure planning and avocation were studied at Iowa University (1976). Allan (1976/77) reports on work to develop cooperation between continuing educators and cable television programmers in order to reach the elderly with information. Several programs around the country utilize education technology in outreach. Depth and quality of descriptions of such programs varies; two examples are the uses of television in pre-retirement education (Thorson; 1976) and in health education (Marshall, 1976).

Local computer capability, too, may be applied to outreach programs. Hicks (1976) reports on a study at the University of Illinois which focussed on older persons using computerized information. The author voices a concern underlying many, although not all, technologically based programs: the need to insure the humanized use of information technology.

The Administration on Aging sponsored significant studies on, and facilitated the development of, Information and Referral Services. The main functions of these services are: (1) linking elderly people in need of services with the appropriate agency or program, and (2) collecting and making available data about human services and thus assisting in the community planning process by discovering duplications or gaps in programs. Long (1977) studied the development and evaluation of I & R services from the point of the systems approach. An especially valuable feature of his study focusses on the involvement of community people in service development and evaluation.

A practical guide to the establishment and operation of I & R services was published by the U.S. Administration on Aging (1977). The guide includes the methodology for creating the community resources data base, development of the Information Center Services Identification System (ICSIS), and administrative details of operations.

Under contract with the Health Resources Administration, the Gerontological Society produced Working with Older People--A Guide to Practice (U.S. Health Resource Administration, 1978). Biological, health, psychological, social, and cultural aspects of human services are discussed. The second volume covers manpower opportunities in services, structure of delivery, target groups, a reference bibliography, and a directory of organizations.

One of the most difficult tasks for information professionals is to locate cost and benefit analysis models for information and referral services. Cost models for age-segregated and age-integrated

I & R systems, together with empirical evidence regarding I & R production processes, were published by Cooper and Co. (1975).

For further references on I & R services, readers might refer to Information Counseling--the Best of ERIC (Dosa, 1977).

2. Library Programs

Since the 1940's, librarians have been particularly concerned with programming for the elderly and with educational support for the known professionals on the aging process. It was not until the 1961 White House Conference on Aging, however, that this concern finally provided the impetus for federal legislation and subsequent funding under the Library Services and Construction Act (LSCA). In 1964, the American Library Association's Committee on Library Service to an Aging Population of the Adult Services Division made a statement of responsibility for seeing that the institutionalized aged "continue to get the library service they have a right to expect" (Romani, 1970).

The creation of the Older American's Act in 1965 provided money for community planning, training programs, and research development in the field of aging. In the same year, the Higher Education Act, Title II-B, made available funding to train librarians to work with the institutionalized elderly. Wayne State sponsored a one-week institute on public library service to the aging in 1969. Participants developed a seventeen-point statement for planners which proved the most effective, up to this time, in defining and evaluating principles of public library service to older persons (Casey, 1971).

The 1971 White House Conference on Aging published its final report, "Towards a National Policy on Aging," outlining the needs and concerns of older Americans and reaffirming the important role libraries have in reaching out to the elderly in their communities (Casey, 1974). Recently, the American Library Association's Reference and Adult Services Division (1975) published "Guidelines for Library Services to an Aging Population." Library involvement is outlined in three areas: (1) knowledge and information collection, (2) knowledge and information dissemination, and (3) creative action in which new services are initiated by libraries.

For almost twenty years, the literature has stressed libraries' responsibilities in terms of education, information, recreation, and culture. Although consciousness has been raised in librarians to recognize the importance of liaisons with community organizations, and although there have been efforts to develop information and referral services and community analysis programs in public libraries, especially in the last decade, the trend for most types of libraries has been to program for institutionalized or homebound elderly. Services have been traditional, with major spending of money on large print materials and with heavy programming in nursing homes where only two to five percent of the elderly can be reached.

Hameister (1976) sees the library as an important source of "information to the elderly" and "information about the elderly." He urges libraries to provide information about social services and "life enrichment" information. The library has a responsibility to give community support to local Area Agencies on Aging, senior

clubs and centers, and other organizations of older persons. Hameister also points out the library's role to dispel the myths and stereotypes of aging by actively involving itself in an advocacy role through cooperation with groups such as the Gray Panthers, the American Association of Retired Persons, and the National Council on Aging.

There are many excellent library programs in this country which carry out the educational, cultural, recreational, and informational goals of the White House Conferences on Aging, the American Library Association, and the various legislative acts of the government. Some of these programs are described here. They are by no means reaching all potential users; any library, with creativity and imagination, can develop programs that satisfy the needs of its elderly clientele.

Many library administrators recognize the responsibility to learn as much as possible about their communities before attempting programming for the elderly. Interagency cooperation and a knowledge of community resources such as adult education programs, nursing homes, and planning agencies for the elderly are important foci for library planning. Projecting positive images of aging are also essential ingredients to good service. Videocassettes or other audiovisual materials are very effective for staff development and community involvement. Topics can cover problems of older people such as health, transportation, nutrition, and positive role identification. For example, Denver University's Colorado Research Institute has available videocassettes and slide/sound shows that include a bibliography on aging, legal and consumer issues, and barrier-free architecture (Katz, 1977).

The earliest nursing home library service appears to have occurred in 1948, through Genevieve Casey, at the Detroit Public Library. Institutionalized or home-bound elderly persons can be bussed to the library for book talks, crafts, and other types of activities. Those who cannot leave nursing homes can enjoy stocked book carts that are kept at the institution or wheeled room-to-room, bed-to-bed by library staff. Nursing home residents are excellent as volunteers to maintain permanent collections, keep track of circulation, and other library-related tasks. The literature suggests that files be kept on each resident, noting reading interests and listing titles read.

In Marshfield, Vermont, young adults interacted with senior citizens in locating and preserving valuable primary source materials in the homes of community residents. The students sought out elderly residents for interviews. Attitudes of these youth were positive from this kind of working environment. In Las Vegas, New Mexico, a library interviewer taped elderly residents on life in Spanish-speaking villages of New Mexico from 1890-1930. The tapes are bilingual and provide a bicultural heritage to the general public and academic researchers. The Oklahoma Department of Libraries funded a statewide Right-to-Read project which was responsible for a weekly newspaper column written at the fourth grade reading level, at an adult interest level, and printed in large print. Shreveport, Louisiana, is the locale for "Symphony for Seniors," which brings free professional quality classical performances to persons 60 or older. In Grand Prairie, Texas, librarians offer materials on all subjects for persons attending

a nutrition site. Additionally, programs are presented consisting of physical exercises, music, and education on pre-retirement and budget planning (Erteschik, 1977).

Information and programs need not be offered only through libraries. Retired librarians can provide information services by free-lancing as information brokers (Elder, 1975). Older persons are excellent as book reviewers. Rhode Island's Department of State Library Services sent three or four books to persons over 65 requesting reviews, and the 180 reviews generated by 53 patrons were made available to other older persons not involved in the project (Drickhamer, 1971).

There are many more types of library programs for the elderly. A recent review is entitled "Public Library Programs for the Elderly--Resource Guide" (Eisman, 1978). Besides outlining what various libraries are doing for older persons, a bibliography provides much reading material for professional awareness.

Libraries are recognizing that the relationship between information and survival is an important one in service to the elderly. By planning programs with aging users, working closely with community organizations serving the elderly, developing staff training sessions on the information needs of the aging, and most importantly, dispelling the myths of aging to all sectors of the community (Casey, 1974), librarians can furnish the quality of services older persons deserve.

B. Information for Those Who Work with the Elderly

Miller and Cutler (1976) were among the first gerontologically-oriented persons to question the complexity of information management in the field of aging. This complexity "is affected by the multidisciplinary nature of the subject and the dispersion of relevant bibliographic materials" (p. 198). Since 1961, Dr. Nathan Shock has published a bimonthly serial bibliography which appears in the Journal of Gerontology. The bibliography lists, under broad subject categories, journal articles, papers, conference proceedings, and other documents in gerontology. However, there is no comprehensive indexing service tailored specifically for gerontology. Professionals spend a large amount of time searching through many resources for information on their topic of interest. One of the potential avenues of solution to information management was explored by Miller and Cutler: the future application of computerized data bases for the retrieval of gerontological information.

The National Clearinghouse on Aging (NCOA), within the Administration on Aging, created a Thesaurus (1977) of aging terms based on research projects funded by AOA. This is an excellent basic guide to acquisition, indexing, and retrieval of literature on aging. In September 1978, the NCOA awarded the first of a series of contracts for the SCAN (Service Center for Aging Information) system to Norman Hodges and Associates in Washington, D.C. This contractor is responsible for the development and operation of the Central Control Facility in which the major products and services will be: (1) a comprehensive bibliographic data base including

abstracts of gerontological literature in computer-readable format; (2) custom searches of the data base through Resource Centers to be operated under AOA contracts; (3) national on-line access to the data base through a commercial organization for anyone with a terminal and a telephone; (4) a monthly journal containing bibliographic references with abstracts of gerontological literature; and (5) microfiche and paper copies of all documents in the data base except those prohibited by copyright holders. The NOCA Thesaurus will be revised and edited for use with the SCAN data base.

Currently, the Ethel Percy Andrus Gerontology Center, at the University of Southern California, is operating a computerized search and retrieval system that is "both an information source and resource of gerontological information." The Gerontological Information Center offers (1) computer tapes of bibliographic citations on special topics based on the Research Library's holdings; (2) custom bibliographies based on user requests in hard copy format; (3) publications lists of the Center on selected topics; and (4) reprint request service of literature authored by Center staff (Ethel Percy Andrus Gerontology Center, 1978).

In keeping with Miller and Cutler's suggestion for permanent committees of information specialists within the Gerontological Society, gerontological librarians were designated as an advisory committee to the Education Section's 1977 Annual Meeting. At the 1978 Meeting, the purpose and goals and objectives of this Library/Information Specialist Committee were outlined. Goals included: (1) the provision of a forum for information exchange; (2) the

provision of comprehensive, timely, and accurate information in the field of gerontology; and (3) the encouragement of the growth and quality of gerontological librarianship as a profession.

The Administration on Aging has also awarded grants to multi-disciplinary gerontology centers for the development of information services. Duke University's KWIC (Keywork Indexed Collection) of the Training Resources in Aging Project provides an information service to assist educators in this field. The project maintains an information bank of training materials relevant to the field of aging, which is dependent on the cooperation and contributions of persons producing training materials (Van Steenberg and Karasik, 1976). Another Duke University program, ASTRA, subcontracted with the Educational Products Information Exchange (EPIE) Institute of New York to assist in the development of a format for reviewing the training materials sent to the project. Jointly, EPIE and ASTRA produced a 15 page review form intended to gather evaluative information on the resource under review. This review was redesigned by ASTRA and KWIC in 1978 (McGekee and Gaylord, 1978).

At the University of California, PROJECT IDEA was funded as a three year project to "develop a model of data acquisition, compilation, and dissemination" for an aging network. In year one (1977), a directory was published which compiled, indexed, and classified into nine broad subject groupings profiles on innovations in aging. Year two will see a directory of innovation information about Area Agencies on Aging, and year three will be devoted to updating and providing certain "custom searches."

Syracuse University's All-University Gerontology Center and School of Information Studies have been operating the Gerontological Information Program (GRIP) since September 1976. GRIP uses an integrated approach to gerontological information: research, systems development, and education. From research generated on the kinds of information needed by individuals in human service delivery and older persons' organizations, GRIP provides two kinds of information services: current awareness in the form of a periodic newsletter, and on-demand information searches using computerized retrieval systems, area libraries, and special collections (Brindle, Dosa, Gee, 1977).

The future of information management in gerontology looks promising for service deliverers and researchers. Other problems will undoubtedly arise, such as improving access and utilization of foreign-language and foreign-source informational materials (Beall and Mulak, 1977), and focussing on the elderly as a new group of computer users or clients (Hicks, 1976). However, the NCOA contract to create the SCAN system will make information access in the field of aging much easier for gerontologically-interested persons.

With the technological capability of searching computerized numerical data bases, researchers are able to access socioeconomic data more efficiently. Data files are often generated by survey research projects and can be used for secondary analysis by other researchers, but, in the past, very little attention was paid to this type of potential resource. Granick and Klebau (1977) describe a file of data, derived from a longitudinal study of the biological

and behavioral functioning of individuals, supported by the National Institute of Mental Health. Ways this file can be used by other investigators are discussed.

The utilization of existing data files has been greatly enhanced by the creation of the National Archive of Computerized Data on Aging with support from the Administration on Aging. The new program, jointly administered by the Inter-University Consortium for Political and Social Research and the Institute of Gerontology at the University of Michigan, collects aging-related data, makes them accessible, and seeks to improve their utilization through training seminars. Examples of files, located at the National Archive, include data from Ethel Shanas' Survey of the Aged in 1957 and 1962, the 1968 National Senior Citizens Survey conducted by Kermit Schooler, and Louis Harris' 1974 Survey on Aging.

Not only researchers, but also service deliverers and policy makers, have a need for demographic data and for the combination of these data with various indicators on the quality of health, social conditions, and environmental conditions of the elderly. The U.S. Bureau of the Census (1976) issued a volume on the demographic aspects of aging in the Current Population Reports. The complexity of using census data in relation to aging was documented by Kindig and Warren (1976). Theoretical and developmental work on social indicators relevant to aging is underway at the Institute for Interdisciplinary Studies (1974), at the Institute of Urban and Regional Development at Berkeley (Krieger, 1971).

C. International Issues

Since its beginning, social gerontology has developed strong ties among scientists, especially in the industrialized countries where the concern about the growing numbers of the elderly first manifested itself. In the 1960's, the International Center of Social Gerontology took the lead in recommending coordination of cross-national aging research and standardization of methodologies (Bergman, 1970). A critical review of research efforts, mainly centering on the status of the elderly in the society, was provided by Press and McKool, Jr. (1972).

Developing societies, where traditionally people remain in their families and communities to the end of their lives, and where poverty and poor health conditions are dominating phenomena, social services and policies for the aged have been slow to develop and social gerontology has been practically unknown. As a result of industrialization and urbanization, however, this situation is rapidly changing. The first organized program for professional education, service, and applied research originated in geriatrics rather than social gerontology (World Health Organization, 1974).

In 1974-75, the Secretary General of the United Nations prepared a major report on the conditions and needs of the elderly and proposed a framework for national policies (United Nations, 1975). The report, together with recommendations of an Expert Group, constituted a useful basic overview of international issues; however, with the rapid sociocultural changes in many developing countries of the world, the report will be soon

outdated. A brief discussion of the role of information systems was included (p. 80). As a result of the General Assembly's resolution, in 1975, the Information Exchange System on Aging was set up at the United Nations as a three-phased program to collect and coordinate information obtained from national correspondents and other sources.

In 1978, an International Conference on Aging, sponsored by the French Institut de la Vie under the auspices of the United Nations Fund for Population Activities, took place in New York. The theme, "Aging: A Framework of Characteristics and Considerations for Cooperative Efforts Between the Developing and Developed Regions of the World," included such concerns as (a) the transmittal of awareness of issues in the field of aging to the developing countries, (b) transmittal of scientific knowledge and technology in this field to the Third World, and (c) transmittal of Third World traditions and experiences in this field to the developed world. "Information Sharing and Communication" appears as a separate section. As Beattie (1978) observed in his report, the meeting stressed the need to "distinguish between information exchange in the areas of scientific methods and technology and research findings from solutions to the societal and individual problems and issues related to the aging" (p. 13).

One of the fallacies of international cooperation in a culturally determined issue such as aging is that many researchers and program developers in the industrialized countries assume that research findings, policy guidelines, or social programs transmitted to developing countries will always be adaptable to the cultural

environment and societal needs of the recipient country. Existing centralized information systems may be supplemented by a network of gerontologists in different countries whose direct information exchange would be facilitated by a directory of information and data resources. Copies of the resource directory would be distributed to all participants (Dosa, 1978).

Beall (1976) discussed the problems and potentials of international documentation and information systems in France and West Germany and the implications of such systems for the future. In another paper, Beall (1977) reported on his study of the use of foreign-language and foreign-source materials by authors of papers that appeared in the Journal of Gerontology and Gerontologist. He observed weaknesses in the availability and utilization of such materials.

Conclusion

We are reminded of two examples in the literature that may, even if indirectly, symbolize the role of information in relation to aging. One of the respondents in the NSF study on social ethics and aging voices a concern that is becoming more and more widespread:

> Research on prolongation of lifespan must face the "For what" aspects--economic, social, and psychological overtones may be more important in the long run than the technological advances which would make it possible" (U.S. National Science Foundation, 1977, p. 70).

In a different context and at the personal level, an author describes her own day of isolation, an experience very familiar to

millions of older people:

> Again a day that is so empty that I cry inside, a heavy weeping that will not stop. I cannot read, the papers depress me, reviews are written from points of view so outside my experience that I wonder if I ever understood anything" (Scott-Maxwell, 1968, p. 129).

These two different concerns and situations represent the challenges that gerontological information needs pose for information and library professionals. On the one hand, data and documentary support is needed to enable researchers and policy makers to find solutions to complex problems involving the entire aging population. On the other hand, relevant reading and informational programs are desperately needed by older individuals who feel outside of the mainstream of life. This two-fold challenge is worth the serious attention of a profession.

BIBLIOGRAPHY

BACKGROUND

Concepts and Development

Bailey, Stephen. "The several ages of learning." Change, May 1976, 8(4), 35-39. EJ 136 389.

Birren, J. E. and Vivian Clayton. "History of gerontology." In D. S. Woodruff and J. E. Birren, editors. Aging--scientific perspectives and social issues. New York: Van Nostrand, 1975, pp. 15-27.

Maddox, G. L. and James Wiley. "The social aspects of aging--scope, concepts and methods in the study of aging." In R. H. Binstock and Ethel Shanas, editors. Handbook of aging and the social sciences. New York: Van Nostrand, 1976, pp. 3-34.

Paillat, Paul. "Gerontological research--present situation and prospects." International Social Science Journal, 1968, 20(2), 264-265.

Tibbitts, Clark, editor. Handbook of social gerontology--societal aspects of aging. Chicago: University of Chicago Press, 1960.

_____. "Origin, scope, and fields of social gerontology." In Handbook of social gerontology--societal aspects of aging. Chicago: University of Chicago Press, 1960, pp. 3-26.

Woodruff, D. S. and J. E. Birren, editors. Aging--scientific perspectives and social issues. New York: Van Nostrand, 1975.

Research in Social Gerontology

Bergman, S. "Coordination of research policies in social gerontology." In First International Course in Social Gerontology, Lisbon, Portugal: International Center of Social Gerontology, 1970, pp. 101-110.

"Bibliography of doctoral dissertations on aging from American institutions of higher learning, 1975-77." Journal of Gerontology, 1968, 33, 605-615.

Binstock, R. H. and Ethel Shanas. Handbook of aging and the social sciences. New York: Van Nostrand, 1976.

Birren, J. E., editor. Handbook of aging and the individual--psychological and biological aspects. Chicago: University of Chicago Press, 1959.

_____ and K. W. Schaie, editors. Handbook of the psychology of aging. New York: Van Nostrand, 1977.

Borland, D. C. "Research on middle age--an assessment." The Gerontologist, August 1978, 18(4), 379-386.

Burgess, E. W., editor. Aging in western societies--a survey of social gerontology. Chicago: University of Chicago Press, 1960.

Butler, R. N. "Research programs of the National Institute on Aging." Public Health Reports, January/February 1977, 92(1), 3-8.

_____. "Wanted--information about and for the aging, an interview... ." Bulletin of the American Society for Information Science, October 1978, 5(1), 14-17.

_____ and Walter Spieth. "Trends in training in research gerontology." Educational Gerontology, April 1977, 2(2), 111-113. EJ 154 791.

Finch, C. E. and Leonard Hayflick, editors. Handbook of the biology of aging. New York: Van Nostrand, 1977.

Havighurst, Robert J. "The status of research in applied social gerontology." The Gerontologist, Winter 1969, 9(4).

Korenchevsky, V. Physiological and pathological aging. New York: Hafner Publishing, 1961.

_____. "The problem of aging and the ways and means of achieving the rapid progress of gerontological research." In The social and biological challenge of our aging population. New York: Columbia University Press, 1950, pp. 7-24.

Riley, M. W. Aging and society--volume 1, an inventory of research findings, with Anne Foner. New York: Russell Sage Foundation, 1968.

_____. Aging and society--volume 2, aging and the professions, with M. E. Johnson. New York: Russell Sage Foundation, 1969.

_____. Aging and society--volume 3, a sociology of age stratification, with Marilyn Johnson and Anne Foner. New York: Russell Sage Foundation, 1973.

Shanas, Ethel. "Gerontology and the social behavioral sciences--where do we go from here?" The Gerontologist, December 1975, 15(6), 499-502. EJ 082 541.

Tibbitts, Clark, editor. Handbook of social gerontology--societal aspects of aging. Chicago: University of Chicago Press, 1960.

_____. "Research and development goals in social gerontology." The Gerontologist, 1969, 9(4/2).

U.S. Department of Health, Education and Welfare. National Institutes of Health. Our future selves--a research plan toward understanding aging. Report of the panel on behavioral and social sciences research of the National Advisory Council on Aging. Washington, D.C.: U.S. Government Printing Office, 1978. ED 147 667.

U.S. National Science Foundation. Extending the human life span--social policy and social ethics. Bernice L. Neugarten and Robert J. Havighurst, editors. Washington, D.C.: U.S. Government Printing Office, 1977.

Public Policy, Human Services and Advocacy

Baumhover, L. A. and J. D. Jones, editors. Handbook of American aging programs. Westport, Conn.: Greenwood Press, 1977.

Dancy, J., Jr. The black elderly--a guide for practitioners. Ann Arbor, Mich.: University of Michigan, Institute of Gerontology, 1977.

Demone, H. W., Jr. Stimulating human services reform. Rockville, Md.: U.S. Department of Health, Education and Welfare, PROJECT SHARE, 1978. (Human services monograph series no. 8).

Gold, B. D. "The role of the federal government in the provision of social services to older persons." In Political consequences of aging. The Annals of the American Academy of Political and Social Science (Vol. 415), September 1974, pp. 55-69.

Horn, Linda and Elma Griesel. Nursing homes--a citizen's action guide. Boston, Mass.: Beacon Press, 1977.

Hudson, R. B. "The 'graying' of the federal budget and its consequences for old-age policy," The Gerontologist, October 1978, 18(5/1), 428-440.

Keebler, Nancy, editor. "A guide to organizations, agencies, and federal programs for older Americans." Washington, D.C.: Capitol Publications, Inc., February 1978. (Older American Reports).

Kuhn, M. E. "Open letter." The Gerontologist, October 1978, 18(5), 422-424.

Maddox, G. L. "President George Maddox replies." The Gerontologist, October 1978, 18(5), 425-427.

Pratt, H. J. "Old age associations in national politics." In Political consequences of aging. The Annals of the American Academy of Political and Social Science (Vol. 415), September 1974, pp. 106-119.

Thomas, Barbara and others. Citizen participation in identifying and prioritizing the needs of older adults and retired persons. Iowa City, Iowa: Multidisciplinary Gerontology Center of Iowa, 1977.

U.S. Congress. House. Select Committee on Aging. Fragmentation of services for the elderly. Hearings..., 94th Congress, 1st session, April 4, 1977. Washington, D.C.: U.S. Government Printing Office, 1977.

Education and Training

Blake, Clarence Napoleon. A descriptive analysis of the adult education methodology and the non-threatening approach to adult education as practiced by the Institute of Life-Time Learning, Washington, D.C. Washington, D.C.: George Washington University, 1969. ED 047 208.*

Bolton, C. "Gerontology in higher education--the state of the field." Paper presented at the Gerontological Society, 30th Annual Scientific Meeting, San Francisco, Calif., 1977. ED 154 300.**

Butler, Robert N. and Walter Spieth. "Trends in training in research gerontology." Educational Gerontology, 1977, 2, 111-113. EJ 154 791.

Ehrlich, Ira F. and Phyllis D. "A four-part framework to meet the responsibilities of higher education to gerontology." Educational Gerontology, 1976, 1, 251-260.

Lumsden, D. Barry. "Graduate training in education and aging--results of a national survey, part 1." Educational Gerontology, October 1977, 2(4), 429-434. EJ 169 292.

Moody, H. R. "Philosophical presuppositions of education for old age." Educational Gerontology, January-March 1976, 1(1), 1-15. EJ 134 249.

National Institute of Mental Health. Mental health continuing education programs for long-term care providers. Washington, D.C.: U.S. Government Printing Office, 1975. ED 132 890.

New York State Education Department. "How to get those 'extras' out of retirement living. A course of study designed for public school continuing education programs." Albany, N.Y.: Division of Continuing Education, 1975. ED 140 177.

Peterson, David A. "Educational gerontology--the state of the art." Educational Gerontology, January-March 1976, 1(1), 61-68. EJ 134 253.

Spinetta, John J. and Tom Hickey. "Aging and higher education--the institutional response." The Gerontologist, October 1975, 15(5/1), 431-435. EJ 125 579.

Sprouse, Betty M., editor. National directory of education programs in gerontology. Washington, D.C.: Association for Gerontology in Higher Education, 1976. ED 140 015.**

Syracuse University. An instructor's handbook for the development of a basic course in gerontology. Syracuse, N.Y.: All-University Gerontology Center, November 1975. ED 146 941.**

U.S. Administration on Aging. "Guide to AOA programs, research and demonstration, education and training." Prepared for the Gerontological Society, 31st Annual Scientific Meeting, Dallas, Texas, November 16-20, 1978. Washington, D.C.: Department of Health, Education and Welfare, [1978].

Wass, Hannelore and Carolyn A. West. "A humanistic approach to education of older persons." Educational Gerontology, October 1977, 2(4), 407-415. EJ 169 290.

White House Conference on Aging. Toward a national policy on aging, final report. Volume II. Washington, D.C.: U.S. Government Printing Office, 1971, pp. 1-10. ED 072 346.

THE ROLE OF INFORMATION IN SOCIAL GERONTOLOGY

Bowers, G. E. and M. R. Bowers. Cultivating client information systems. Rockville, Md.: U.S. Department of Health, Education and Welfare, PROJECT SHARE, 1977. (Human services monograph series, no. 5).

Brindle, E. A. and M. L. Dosa. "An exploration of some areas of research on information needs and networks and their applicability." Paper presented at the Conference on Cross-Cultural Research Perspectives on Puerto Rican Aging, San Juan, Puerto Rico, September 24-27, 1978.

Information for Older Persons

Communication and Information

Allan, William F. "Continuing education, cable television, and the elderly." International Journal of Instructional Media, 1976-77, 4(1), 23-30. EJ 148 531.

Alpaugh, Patricia K. and others. "Age and creativity--implications for education and teachers." Educational Gerontology, January-March 1976, 1(1), 17-37. EJ 134 250.

Beattie, Walter M., Jr. "Our aging population--implications for information and communication sciences." Paper presented at a research conference on Communication and Aging, Michigan State University, East Lansing, Michigan, March 6, 1975. [IR 006 779 - *ED number to be assigned*]

Best, David and Julie Schmidt, editors. 2nd annual reader--Northern Wisconsin Symposium on Human Services in the Rural Environment (Cable, Wisconsin, October 7-8, 1976). Milwaukee, Wis.: University of Wisconsin, Center for Social Service, 1977. ED 148 529.

Carmichael, Carl W. "Communication and gerontology--interfacing disciplines." Journal of the Western Speech Communication Association, Spring 1976, 40(2), 121-129. EJ 144 446.

Cooper and Co. Stamford, Connecticut. Costs and benefits of information and referral under the Older Americans Act. Rockville, Md.: U.S. Department of Health, Education and Welfare, PROJECT SHARE, October 1975.

Dosa, M. L. Information counseling--the best of ERIC. Syracuse, N.Y.: Syracuse University, ERIC Clearinghouse on Information Resources, 1977. ED 152 336.

Fisher, Joseph A. "Yesterday's student--tomorrow's challenge." Paper presented at the 20th Annual Meeting of the North Central Reading Association, Champaign, Illinois, October 28-29, 1977. ED 149 305.

Harvard University. Annual report (1 June 1966-31 May 1967). Information system for vocational decisions. Cambridge, Mass.: Graduate School of Education, September 1967. ED 062 537.

_____. Information system for vocational decisions. Miscellaneous project reports. Cambridge, Mass.: Graduate School of Education, 1968. ED 062 536.

Hicks, Bruce. Computer outreach. Urbana, Ill.: University of Illinois, Department of Secondary Education, September 1976. ED 138 293.

Iowa University. Avocational counseling for the elderly. Iowa City, Iowa: Recreation Education Program, 1976. ED 132 798.

Kent, K. E. and Ramona R. Rush. "Communication, public affairs knowledge, and older persons." Paper presented at the 58th Annual Meeting of the Association for Education in Journalism, Ottawa, Canada, August 1975. ED 127 616.

Kuhn, M. E. "Open Letter." The Gerontologist, October 1978, 18(5), 422-424.

Long, Nicholas. Information and referral services: Evaluation design for a network demonstration. Minneapolis, Minn.: InterStudy, 1974. ED 157 557.**

_____. Information and referral services: Research findings. Volume I and appendix. Washington, D.C.: DHEW Office of Human Development, Administration on Aging, 1977. For 1975 edition, see ED 154 281** (Appendix I) and ED 154 282 (Volume I).

Marshall, Carter L. and others. Gaylord White Project, operational stage. Final report. New York: Mount Sinai School of Medicine, 1976. ED 126 913.

Morrison, Malcolm H. "A human relations approach to problem solving." The Gerontologist, April 1976, 16(2), 185-186. EJ 135 738.

Oyer, Herbert J. and Jane E. Oyer, editors. Aging and communication. Baltimore, Md.: University Park Press, 1976. ED 128 860.*

Rue, Vincent M. "Retooling information systems for aging." International Journal of Aging and Human Development, 1973, 4(4), 361-374.

Schramm, Wilbur. "Aging and mass communication." In M. W. Riley. Aging and society--volume 2, Aging and the professions. New York: Russell Sage Foundation, 1969, pp. 352-375.

Thorson, James A. "A media approach to pre-retirement education." Adult Leadership, June 1976, 24(10), 344-346. EJ 140 860.

Tiedeman, David V. The organization and intention of a proposed data and educational system for vocational decision-making. Cambridge, Mass.: Harvard University, Graduate School of Education, December 1965. ED 062 656.

U.S. Administration on Aging. National Clearinghouse on Aging. Information and referral--how to do it. (Vol. 1, 4 parts). Washington, D.C.: U.S. Government Printing Office, 1977.

U.S. Health Resources Administration. Health Care Financing Administration. Working with older people--a guide to practice, by the Gerontological Society. Vol. 1, The knowledge base; Vol. 2, Human services. Washington, D.C.: U.S. Government Printing Office, 1978.

Western Regional Hispanic Conference on Aging. "Search for Hispanic models. Final report and recommendations." 1st, Los Angeles, California, October 7-8, 1976. Los Angeles, Calif.: National Association Pro Spanish Speaking Elderly, October 1976. ED 139 553.

Library Programs

American Library Association. Reference and Adult Services Division. "Guidelines for library services to an aging population." RQ, Spring 1975, 4, 237-239. EJ 114 615.

Casey, Genevieve M. "Library and information needs of aging Americans." In Library and information needs of the nation--proceedings of a Conference on the Needs of Occupational, Ethnic, and Other Groups in the United States. Washington, D.C.: U.S. Government Printing Office, 1974, pp. 162-170. ED 101 716.

_____. "Public library service to the aging." American Libraries, October 1971, pp. 999-1004. EJ 044 806.

Department of Health and Social Security. "Library services in hospitals." London, England: April 1970. ED 053 766.

Donohue, Deirdre A. "An investigation of library services for the elderly, institutionalized mentally ill to arrive at an optimum program through the establishment of a library for 1,000 residents with no present service. Final report." Providence, R.I.: Department of State Library Services, November 1973. ED 087 484.

Drennan, Henry T. "Library legislation discovered." Library Trends, July 1975, 24(1), 115-135. EJ 124 649.

Drickhamer, Jewel. "Rhode Island project--book reviews by older citizens." Library Journal, September 15, 1971, pp. 2737-2743. EJ 044 793.

Eisman, Harriet. "Public library programs for the elderly--resource guide." Syracuse, N.Y.: Syracuse University, School of Information Studies, Gerontological Information Program, 1978.

Elder, Jane D. Shelved--the retired librarian's guide book, 1975. ED 150 982.

Erteschik, Ann. Library programs worth knowing about. Washington, D.C.: U.S. Office of Education and Chief Officers of State Library Agencies, September 1977. ED 145 858.

Hameister, Dennis R. "Conceptual model for the library's service to the elderly." Educational Gerontology, July 1976, 1(3), 279-284. EJ 144 267.

Katz, Ruth M., and others. Delivering library services to an aging population. Denver, Colo.: Denver University, Research Institute, December 1977. ED 157 537.

_____. Serving senior patrons--integrated media. Final report. Denver, Colo.: Denver University, Research Institute, November 1977. ED 157 536.

Molz, Kathleen, compiler. "Reaching out--some USOE-funded programs and projects that illustrate the efforts of public libraries to attract new clientele." Washington, D.C.: U.S. Government Printing Office, 1974. ED 102 985.

Phinney, Eleanor, editor. "Library services to the aging." Library Trends, January 1973, 21(3), 359-366. EJ 078 435.

Romani, Dorothy. "Guidelines for library service to the institutionalized aging." American Libraries, March 1970, 1(3), 286-289. EJ 017 725.

Waddicor, John. "Library service to nursing homes." Library Journal, October 15, 1975, pp. 1892-1895. EJ 124 598.

Information for Those Who Work with the Elderly

"Available data sources." Urban League Review, February 1975, 1(2), 74-77. EJ 135 399.

Beall, George Thomas and Susan Mulak. "Perspectives on the availability and utilization of foreign-source informational materials in gerontology." The Gerontologist, December 1977, 17(6), 537-543. EJ 169 285.

Brindle, E. A., M. L. Dosa, and G. M. Gee. "A prototype gerontological information program." In American Society for Information Science. Information management in the 1980's, Proceedings of the 40th Annual Meeting, Chicago, Illinois, 1977 (Vol. 14). White Plains, N.Y.: Knowledge Industry Publications, Inc., 1977, p. 7 (abstract and microfiche text).

_____. "A prototype gerontological information program." Paper presented at the Gerontological Society Annual Meeting, San Francisco, California, 1977. ED 146 938.

Dosa, M. L. "The Gerontological Information Program," Bulletin of the American Society for Information Science, October 1978, 5(1), 18.

_____. "Human resource networks in community gerontological and health information." In Special delivery--a collection of papers, 1974-1977. Kalamazoo, Mich.: Western Michigan University School of Librarianship, 1978, pp. 42-59. (Alberta L. Brown lectures in special librarianship). ED 152 228.

Edwards, W. M. "The role of the library-information specialist as a member of the research team--a case study." Paper presented at the Gerontological Society's Annual Meeting, San Francisco, California, 1977.

Ethel Percy Andrus Gerontology Center. "The Gerontological Information Center invites you to interactively search its database." Los Angeles, Calif.: University of Southern California, 1978.

Granick, Samuel and Morton H. Kleban. "Data file on NIMH study of healthy aged males." The Gerontologist, December 1977, 17(6), 531-536. EJ 169 284.

Hershberger, Robert G. and others. "Use of gerontological research information in a design studio." Journal of Architectural Education, September 1977, 31(1), 33-36. EJ 170 178.

Hicks, Bruce. Computer outreach. Urbana, Ill.: University of Illinois, Department of Secondary Education, September 1976. ED 138 293.

Institute for Interdisciplinary Studies. Indicators of the status of the elderly in the United States. Minneapolis, Minn., 1974.

Kindig, H. I. and Robert Warren. "Adequacy of census data in planning and advocacy for the elderly." The Gerontologist, 1976, 16(5), 392-396.

Krieger, M. H. Social indicators and the life cycle. Berkeley, Calif.: Institute of Urban and Regional Development, 1971.

McGekee, Lockie Jayne and Susan Gaylord, editors. Analysis and selection of training resources in aging. Durham, N.C.: Duke University, Center for the Study of Aging and Human Development, KWIC Training Resources in Aging Project, 1978.

Miller, Emily H. and Neal E. Cutler. "Toward a comprehensive information system in gerontology--a survey of problems, resources, and potential solutions." The Gerontologist, June 1976, 16(1), 198-206. EJ 140 970.

Monroe, M. B. and Rhonda Gandel. "Analysis of the Shock bibliography in providing bibliographic access in gerontology." Paper presented at the Gerontological Society's Annual Meeting, San Francisco, California, 1977.

Owens, H. Jean. "Directory of gerontological libraries and resource centers in the United States--a preliminary draft." Detroit, Mich.: Wayne State University, Institute of Gerontology, Learning Resources Center, 1977.

Shock, Nathan, compiler. A classified bibliography of gerontology and geriatrics. Stanford, Calif.: Stanford University Press, 1951. (Supplement I, 1949-1955 1957; Supplement II, 1956-1961 1963; continued in Journal of Gerontology since 1962).

U.S. Administration on Aging. National Clearinghouse on Aging. Thesaurus. 2nd edition. Washington, D.C.: U.S. Department of Health, Education and Welfare, July 1977.

U.S. Bureau of the Census. Demographic aspects of aging and the older population in the United States. Washington, D.C.: U.S. Government Printing Office, 1976. (Current population reports, series P-23, no. 59). ED 124 476.**

University of California. Innovative developments in aging directory. Second printing. San Francisco, Calif.: PROJECT IDEA, May 1978, c1977.

Van Steenberg, Carol L. and Robin B. Karasik. "Get KWIC help--an information service to assist trainers in aging." Paper presented at the Annual Meeting of the Gerontological Society, New York, New York, October 29, 1976. ED 143 912.

Williams, Martha and Elaine Tisch Dunatov. "Data bases for coping with human needs." Drexel Library Quarterly, January-April 1976, 12(1,2), 110-138. EJ 143 245.

International Issues

Beall, George Thomas. "Emergence of an information system in aging--the international context." Remarks prepared for presentation at the Symposium on Emergence of an Information System in Aging, Gerontological Society Annual Meeting, New York, New York, 1976.

_____ and Susan Mulak. "Perspectives on the availability and utilization of foreign-source informational materials in gerontology." The Gerontologist, December 1977, 17(6), 537-543. EJ 169 285.

Beattie, Walter M., Jr. "Aging--the developed and developing world." A report on recommendations of the International Meeting on Aging sponsored by the Institut de la Vie under the auspices of The United Nations Fund for Population Activities, United Nations, New York, New York, April 3-5, 1978.

Bergman, S. "Coordination of research policies in social gerontology." In First International Course in Social Gerontology. Lisbon, Portugal: International Center of Social Gerontology, 1970, pp. 101-110.

Dosa, M. L. "Human resource networks in gerontological information." Paper presented at the XIth International Congress of Gerontology, Tokyo, Japan, August 20-25, 1978.

"Information exchange system on aging." Information Hotline, October 1978, p. 2.

Press, Irwin and Mike McKool, Jr. "Social structure and status of the aged--toward some valid cross-cultural generalizations." International Journal of Aging and Human Development, 3(4), 297-306.

Scott-Maxwell, Florida (Pier). The measure of my days. New York: Alfred A. Knopf, 1968.

United Nations. Department of Economic and Social Affairs. The aging--trends and policies. New York, 1975.

_____. International directory of organizations concerned with the aging. New York, 1977.

U.S. National Science Foundation. Extending the human life span--social policy and social ethics. Bernice L. Neugarten and Robert J. Havighurst, editors. Washington, D.C.: U.S. Government Printing Office, 1977.

World Health Organization. Planning and organization of geriatric services. Geneva, Switzerland, 1974. (Technical report series 548).