THE DEVELOPMENT OF A CURRICULUM GUIDE
FOR A CANCER AWARENESS PROGRAM
FOR OLDER ADULT MALES

THESIS

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By

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This thesis focused on the development of a curriculum guide for a cancer awareness program for older men. The background of the problem -- a lack of programs for older men -- and the methods used in developing the guide are detailed in Chapter One. The second chapter consists of current information on disease prevention, aging and cancer with the emphasis on age-related changes and learning needs of older adult men. Chapter Three is the completed instructor's curriculum guide, and the final chapter includes recommendations on implementing the program as part of a community wellness program. The guide could also be used in senior centers, hospital educational programs, or adapted for use in staff inservices.
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CHAPTER I

INTRODUCTION

Health care in the United States is changing. Rising health care costs, increasing numbers of people living with chronic diseases, and the "aging" of our society have combined to force change in our health care system. One change is an increasing focus on disease prevention and early detection.

Cancer, the second leading cause of death in the United States, is one of the diseases for which the importance of prevention and early detection is now recognized. Both primary and secondary prevention measures are being undertaken. Primary prevention is oriented to preventing the occurrence or reducing the risk of cancer in essentially healthy persons (Burns, 1982). It includes risk assessment, risk reduction, counseling, and life-style modification programs. Secondary prevention is directed toward early diagnosis and prompt, adequate treatment (Burns, 1982). It includes screening done by individuals and by health professionals.

Most cancers are considered diseases of aging with the risk of developing cancer increasing each decade after age 50. Nearly 50% of all cancers occur in the 11% of the U.S. population over age 65 (Kart, 1985; Keintz, Rimer,
Fleischer, & Engstrom, 1988). This elderly cohort represents 25.5% by the year 2000 which means that by 2030 approximately one of every five Americans will be over 65 (Kart, 1985; Smith, 1988). This is a remarkable increase when contrasted with 1900 when only one of every 25 people was over 65 (Neugarten, 1982).

Furthermore, life expectancy among those over age 65 continues to increase. In 1985, the life expectancy of a 65 year old man was 14.6 years and for the same aged woman, 18.6 years (U.S. Senate Special Committee on Aging, 1987). Because of these changing demographics -- more 'older adults' and longer life expectancy -- the potential for a dramatic increase in the number of older adults developing cancer exists.

However, there has been limited systematic study of older adults' perception of cancer. Little research has focused on their experience with cancer or cancer detection activities. This, in all probability, is due to a tendency to view all adults as a single group without respect to differences in genetics, age, life-style, or experiences. Also, until recently older adults were not primary targets for preventive activities because it was felt that the young could benefit most. Knowledge that older adults do in fact have many years of productive life ahead has led to a gradual change in beliefs; consequently, more recent
research has focused on improving or at least maintaining older adults health through preventive and early detection activities.

Some researchers have found that older people are more likely to have inadequate or incorrect knowledge of cancer causation, detection, treatment, and prognosis (Weinrich, & Weinrich, 1986; Keintz et al., 1988). A possible reason for this is that older adults grew up before much was known about cancer, when treatments were few and ineffective, and when the word cancer was synonymous with death (Burns, 1982; Sontag, 1978). Other researchers report that older persons participate less frequently in appropriate cancer detection and screening activities (Keintz et al., 1988). Three possible reasons for this include (a) a lingering fear and shying away from cancer and its connotation of death, (b) few programs that are specifically designed for the special needs of older adults, and (c) programs that are frequently inaccessible to older persons due to disabilities or cost.

For reasons only partly explained by aging and long standing smoking behavior of U.S. men, males over age 65 are at four times the risk of developing cancer as are middle-aged men (Keintz et al., 1988). Despite the increased risk, few cancer awareness or early detection programs are designed for men. Existing programs are generally still targeted for younger men whether college-aged or in the
labor force (Martin, 1987; Marty, & McDermott, 1986). Due to the general unavailability of educational programs for older adult males, this thesis will focus on developing a gender-and age-specific program on cancer awareness for men over age 60.

Statement of the Problem

The problem of this study was to create a curriculum guide for a cancer awareness program for healthy older men in order to bridge the gap between current knowledge of aging and cancer prevention, and programs presently available for use in community based programs.

Purposes of the Study

1. To identify common myths/beliefs about aging and cancer that may affect older adult males' participation in preventive health and screening activities.

2. To identify special learning needs of older adults, specifically males.

3. To critique cancer awareness programs, if any, designed for older adult males.

4. To construct an appropriate curriculum guide on cancer awareness for older adult males.
Delimitation

This study will deal only with healthy older adult males.

Limitation

A possible limitation of this study is that older adult males may be reluctant to participate in a community-based cancer awareness program.

Definitions

The following terms are defined for this study by the author and may differ from others found in the professional literature.

Healthy older adult males -- men over age 60 without diagnosed cancer

Curriculum guide -- an outline of content areas to be taught, including specific recommendations for teaching older adults, resources and bibliography

Cancer awareness program -- an instructional session that (a) provides a brief introduction to the nature of cancer and its relationship to normal aging, and (b) focuses on concepts of cancer
detection illustrating each concept using specific information about cancers that are prevalent in older men such as prostate, colon, and testicular cancer

Background & Significance of the Problem

Historically, cancer prevention and early detection programs have been designed for children and young adults, particularly females. Several important reasons support placing greater emphasis on health promotion activities for older adult males (Given & Given, 1989). First, the National Cancer Institute (NCI) has stated that its goal is to decrease cancer mortality 50% by the year 2000 (Welch-McCaffrey, 1988). This can only be accomplished by preventing cancer or by detecting it in an early stage so that chances of a cure are enhanced. A vaccine is not available and current treatments are most effective at achieving a cure or remission in the early stages of cancer. Targeting older males for cancer awareness programs might have prevented some or all of the 28,000 deaths in 1988 that were attributed to advanced prostate cancer (American Cancer Society, 1988). Many more men might not have died of colon and testicular cancer.
A second reason for targeting older men for cancer awareness programs is related to the increasing numbers of older males whose potential for long life is much greater than preceding generations. A man born in 1900 could expect to live about 46 years. Currently, a man has a 79% chance of living until age 65 and can then reasonably expect to live another 14 years (Neugarten, 1982). Longer life means an increased risk of cancer which should not result in death or disability if the disease can be prevented or detected early. Realization that cancer does affect the lifespan of older males is an important reason to improve their participation in health promotion and early detection activities.

Finally, a third reason to target older men for cancer awareness programs is that preventing cancer or detecting it in early stages may decrease the cost of necessary care as well as allowing the person longer independent living. This is of benefit to the individual, his family, and society as a whole because it enhances the individual's quality of life and decreases the costs associated with cancer care.

In summary, men over age 60 are at an increased risk of developing cancer. Prevention and early detection programs can have an impact on the morbidity and mortality associated with cancer. Health educators and other health professionals must not be complacent about cancer in the
older adult. As Art Linkletter (1988) stated in his recent book *Old Age is Not For Sissies*: "As we get older, the years do take their toll, but many of the things that cause mental and physical problems are a result of our own choices" (p. 169). Programs designed to educate the older adult male about his increased risk and inform him of differences in aging and cancer symptoms could substantially improve his well being. For this reason, this thesis will focus on developing a curriculum guide for a cancer awareness program directed to older adult males.

Methods and Procedures

The following procedures were used in developing the curriculum guide.

1. An in-depth examination of the professional literature was conducted to establish a baseline of information on aging and its relationship to cancer. This included a look at myths associated with either/both cancer and aging which affect people and their decision about health care. Also, it included a discussion of learning abilities of older adults.

2. A national search consisting of extensive telephone calls and letters of inquiry was conducted to determine the existence of any cancer awareness programs for older adults.
3. Pamphlets obtained from national agencies (i.e., American Cancer Society) were critiqued to appropriately recommend supplemental material.

4. The current status of prostate, colon, and testicular cancer was reviewed and reported with respect to screening, diagnosis, and treatment. The review included the rationale for selecting these specific cancers for intervention.

5. After completion of the above steps, the curriculum guide was developed.

6. The curriculum guide was reviewed by Dr. Cora Martin, Associate Professor, Center for Studies in Aging, for accuracy of content on aging.

7. The guide was reviewed by Dr. Debra Caudy, oncologist, for accuracy of content on cancers and their treatments.

8. Recommendations formulated for implementing the program as part of a community hospital wellness program were included in Chapter 4.

Outline for Curriculum Guide

I. Instructor's Manual
   A. Introduction
   B. Specific Considerations in Teaching Older Adults
1. Age-related concerns
2. Ethnic & cultural influences

C. Goals
D. Structure of Curriculum
E. Evaluation of Instructor
F. Resources

II. Content Areas

A. Nature of Cancer
   Session One: Overview, What is Cancer?
   Session Two: Cancer - Diagnosis & Treatment

B. Relationship of cancer and aging
   Session Three: Normal Aging

C. Specific Cancers in Older Adult Males
   Session Four: Introduction
      Colorectal Cancer
   Session Five: Prostate Cancer
      Testicular Cancer

D. Risk Assessment & Prevention
   Session Six: Self-care activities for screening and prevention
      American Cancer Society guidelines for cancer-related check-ups

III. Bibliography
CHAPTER 2

REVIEW OF LITERATURE

The aging of our society is inextricably linked to the future of health care in the United States (U. S.). More and more attention is being focused on the costs associated with caring for the almost 26 million Americans over age 65. Health promotion programs for older adults are one partial solution to the problem of rising health care costs for our nation's elderly.

Cancer is not primarily a disease of youth. The risk of developing cancer increases each decade after age 50 (Kart, 1985). However, until recently most preventive activities were focused on younger adults and children, especially females. With the growing awareness of the potentially negative impact cancer has on the life expectancy of the older adult, research is now being conducted to further our knowledge of aging and programs are being developed to inform and educate older adults about their cancer risk. Since this thesis focuses on developing an age-and gender-specific curriculum guide on cancer awareness, the following areas were reviewed: disease prevention and health promotion for older adults, aging and cancer, and the current status of specific cancers affecting older adult males.
Disease Prevention and Health Promotion for Older Adults

The 1980's in the United States have been described as an era of crisis by Estes, Gerard, Zones, and Swan (1984): fiscal crisis, energy crisis, education crisis, and health care crisis. These crises have provided impetus for policy action and no crisis has resulted in more stormy debate than the health care crisis (Teague, 1987). In the center of the debate are our nation's elders, the largest consumers of health care. Although the elderly now enjoy an extended lifespan, it is often accompanied by one or more chronic degenerative diseases requiring increasing expenditures on health care. Health promotion programs for the elderly cannot be separated from the other issues of health care (Teague, 1987). The medicalization of aging - the emphasis on curative, hospital-based care - has resulted in little attention on health promotion for the elderly. However, changing traditional modes of care will be necessary if our society is to deal effectively with chronic diseases and conditions of aging. An expanded definition of health (allowing for the presence of chronic disease) and an understanding of disease prevention and health promotion are essential for those changes to occur.

Disease prevention, in a broad sense, consists of all measures, including definitive therapy, that limit the progression of disease at any point in its course (Edelman & Mandle, 1986). Levels of prevention operate on a continuum
that may overlap in practice. Primary prevention includes both health promotion and specific protection (Burns, 1982). Health promotion includes health education which is often used in conjunction with screening, a component of secondary prevention. Secondary prevention also includes treating early stages of disease when treatments are more effective (Burns, 1982). According to Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention (1979), the elderly should be included in health promotion/disease prevention efforts because of their increased life expectancy. This is consistent with reasonable, humanitarian goals of cancer control, involving maintenance of lifestyle and dignity of the elderly (Sirotta, Rubovits, Cousins, Weinberg, Laufman, & Lane, 1988).

Older Adults Participation in Preventive and Screening Activities

Old age has been shown to be a risk factor in non-participation in general cancer screening behaviors (Welch-McCaffrey & Dodge, 1988). Many factors have been implicated in this non-participation, some related to physicians and other health care professionals. The personal factors can be divided into two categories: those concerning knowledge and attitudes and those concerning their circumstances in life (i.e., finances).
A survey by Weinrich and Weinrich (1986) found that the elderly have inadequate knowledge of cancer and believe many of the myths about the disease. Those surveyed were unable to name more than one or two of the American Cancer Society's seven warning signals. Frank-Stromborg (1986) reported that many of the elderly take their aches and pains for granted simply because they are old. Additionally, the elderly grew up in an era when consumerism and health education were non-existent and one relied on the doctor to know best. As with other age groups, what older adults "do personally for their health is indicative of their personal perceptions of their health status" (Hickey, 1988, p.24) and is derived from lifelong experiences with illness or health and with the health care system. Misperceptions about aging, inadequate knowledge about cancer, and insufficient understanding about their increased risk of cancer can therefore be barriers to participation in appropriate disease prevention or early screening activities.

Other reasons for non-participation of older adults in cancer screening include financial insecurity, desire to maintain the status quo, and fear of loss of function (Ellison, 1985). Older adults live on fixed incomes, often low, that leave little extra to spend. Williams, Edwards, and Hane (1987) estimate that economic status is a barrier to utilization of health care services to at least 20% of those over 65. Further, the elderly may find programs
inaccessible because they are not conveniently located. Approximately 40% of those over 60 live in non-metropolitan areas of the country and have limited access to medical care or educational opportunities. Transportation is an additional barrier to participating in any activity, let alone a cancer screening program where no immediate benefit can be seen. For some older adults, maintaining the status quo - remaining independent - is so important that they will avoid health care services for fear of finding something wrong that might necessitate moving to a nursing home or other living arrangements. Education will be required before older individuals will see regular check-ups and a healthy lifestyle as a way to maintain their independence.

Physicians and other health professionals influence whether older adults participate in cancer screening programs. According to Crawford & Cohen (1984), a physician may mistake cancer symptoms for those of other diseases. Also, as "estimates of benefit versus risk of diagnostic and therapeutic intervention are less well-defined in the elderly" (Crawford & Cohen, 1984, p. 14) physicians may proceed cautiously in ordering tests and treatments. Lack of knowledge related to recommended screening, forgetting to perform the procedure, lack of time, and concern about cost were cited by Fox, Klos, Tsou, and Baum (1987) as other reasons reported for not including the elderly in screening. Moyer (1982) suggests that the fatalistic attitude of many
nurses and other health professionals toward aging negatively affects whether they encourage older adults to participate in screening or teach the necessary skills for self care such as breast or testicular self-examination.

Older Adults Interest in Preventive Activities

In contrast to the evidence of non-participation in cancer screening activities is the growing awareness that older adults are interested in health and fitness (Smith, 1988). In the 10 years since Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention (1979) was published with the suggestion that the elderly be included in preventive activities, more emphasis has been placed on research on aging and older adults health needs. In 1984, Maloney, Fallon, and Wittenberg sought to determine the interest of older people in acquiring health information. Their study concluded that older adults were not only interested in but receptive to receiving health information. In 1985, a major public education program called Healthy Older People was announced as a collaborative effort of government, volunteer and private sector organizations (United States Public Health Service, 1985). Its thrust, according to Health and Human Services Secretary Margaret Heckler, was to "inform and educate older Americans about health practices which can reduce the risk of disabling illness and increase the prospects for more
productive and active lives" (p. 1). Rakowski (1988) found that older people were more likely than younger ones to have a general medical examination and eye examination but fewer had recommended screening tests such as breast or testicular self-examination. Men were less likely to participate in activities than were women, especially among those older than 55. General public awareness of the need for older adult participation in disease prevention and health promotion activities is growing as the media shifts its attention to our aging population. Noted senior Art Linkletter (1988), writing in his book Old Age is Not For Sissies, urges senior Americans to make healthier choices and discuss ways to do this in chapters of his book entitled 'Healthy Choices' and 'The Right to a Healthy Lifestyle'.

There are sound reasons to encourage older adults interest in disease prevention and health promotion. The average age of our population is increasing and this is also true of the over 65 segment of our population (Edelman & Mandle, 1986). Therefore, there are proportionately more people at the "vulnerable" part of the age spectrum. Holmes and Hearne (1981) suggest that in the over 65 group, screening and early detection would have a higher case yield than younger populations, leading to better cost-effectiveness. In addition, earlier detection increases the chances of cure and diminishes need for toxic therapies with the added effect of enhancing the quality of life of the
people affected. Finally, eliminating the need for expensive cancer treatments for older adults - and other age groups - would minimize the cost of health care to be funded by the government and allow monies for other needs such as housing.

Cancer awareness programs for older adults

Education and screening activities can be used with great advantage among older adults in dealing with certain cancers which if detected early can be treated successfully. Health education can be an important tool in changing older adults beliefs about aging and cancer as well as providing the necessary information so that cancer symptoms are not ignored (Rimer, Jones, Wilson, Bennett, & Engstrom, 1983). However, despite evidence of older adults increased risk for cancer and despite evidence suggesting that older people are interested in health, few cancer awareness or education programs have been tailored to the educational, cancer risk, and lifestyle needs of older adults (Given & Given, 1989). The typical focus of most programs is on symptom-oriented treatment or diversionary activities (Teaque, 1987).

Experiments at adapting community-based health promotion programs for the elderly are taking place around the country. In Boise, Idaho, 'Growing Younger', a neighborhood-based health promotion program for people over 60, was initiated in 1975 (Teaque, 1987). Its purpose is to
help older adults calibrate their physical or functional ages and enjoy activities that extent/enhance later years of life. The overall goal of improving older adults health is supported by objectives set in areas of program participation, changed health risks, and cost containment. This program was subsequently adapted for use by the State of North Carolina.

Another community-based health promotion program exists in San Francisco, California. The Tenderloin Senior Outreach Program (TSOP) is aimed at building supportive networks among elderly hotel residents. TSOP programs offered include information on health awareness, health screening, and referral (Teaque, 1987). Participants themselves play a central role in identifying problems and designing interventions.

Many hospitals are beginning to participate in community health education for the elderly. A hospital-based program in Allentown, Pennsylvania, at Allentown Osteopathic Hospital, offers preventive, promotion, and health maintenance programs for senior citizens. The programs are conducted as health awareness services (Teaque, 1987). Neither this, or other previously mentioned programs focus specifically on cancer awareness or cancer control in older adults.

In 1983, a cancer control program was conceived and implemented by Fox Chase Cancer Center in Philadelphia
The Cancer Program for Older Citizens (CAPROC) was developed to enhance the knowledge of older adults about cancer, to increase their use of early detection tests, and to encourage older people to seek prompt medical evaluation of cancer symptoms. The overall goal was to improve the outcome of a possible cancer diagnosis by encouraging early detection. This program was designed to be presented at senior citizens' groups. A typical agenda, completed in less than one hour, has three components: (a) a slide-tape presentation focusing on reducing false beliefs and increasing knowledge about cancer, (b) group discussion, and (c) gender-specific booklets summarizing cancer screening tests for those over 50 (Rimer et al., 1988). Materials used were developed with awareness of older adults' learning needs and possible hearing or vision deficits.

The results of evaluation of CAPROC provide cause for both optimism and concern regarding health promotion efforts for older people. The results showed only a modest change in cancer-related knowledge, beliefs, and self-reported behaviors with an increased frequency of open discussion concerning cancer tests between older people and their physicians (Rimer et al., 1988). The concern about the modest change might be addressed by using reinforcements in a series of structured interventions or by incorporating repetition and restatement of basic concepts within an
intervention. Health educators must remember that in the minds of many elderly persons the diagnosis of cancer is a death sentence and changing their attitudes and beliefs will not be a simple task.

A search of the literature did not reveal any programs specifically for the older adult male although the CAPROC project certainly could reach this group. A trend toward identifying needs of older adult women was noted in the literature. Allen, Cox, Manton, and Cohen (1986) described the effect of age on the presentation and the therapeutic management of breast cancer patients in a study at Duke University Medical Center. The results included information that (a) older age groups present with more advanced disease, (b) older patients were more likely to have only surgical intervention, and (c) there were deliberate dose restrictions of chemotherapeutics, anticipating poorer tolerance of treatment, which contributed to lesser effectiveness of treatment. In 1987, Williams et al. attempted to identify barriers to breast cancer screening in older women so that the disease could be detected earlier. Barriers identified included economic problems (cost of mammography), lack of accessibility, and continued belief by older women in the myths related to cancer and aging. McCaffrey and Dodge (1988) encouraged design of programs with the needs of older women in mind. They recommended that consideration in program planning be given to (a) the
difficulty older adults have in discussing cancer in large groups, (b) the embarrassment many feel at discussing one's own body, (c) the prevalence of cancerphobia, and (d) the physical limitations (i.e., aging changes) that may occur in old age. All of these concerns would apply to older men and should be considered when planning programs.

Programs have been developed for men albeit for younger age groups (Williams, H., 1981; McDermott & Marty, 1986). Martin (1987) has called men to receive equal attention as women in cancer awareness programs. Her selected target was male cancer awareness in the work place and resulted in a program called "For Men Only - Male Cancer Awareness", designed to increase men's awareness of prostate and testicular cancer. Content of this program included information on the nature of cancer and the concepts of disease prevention and early detection, illustrated by providing information about prostate and testicular cancer (Martin, 1987).

Examples of Health Awareness Curricula

No curriculums from the previously described programs on cancer awareness or health concerns were available for review. Instead, two different health-related curricula were looked at with respect to structure and content. The first program called 'A Healthy Old Age', was developed at the University of Washington and is described in the book A
Healthy Old Age by Fallcreek and Mettler (1984). Four fundamental subjects for health promotion for older adults were identified including stress management, nutrition, physical fitness, and personal and community self-help. Each subject area is divided into four curriculum modules: an overview of the topic, strategies for incorporation into lifestyle, and two modules dealing with specific techniques for change. The course outlines detail the agenda, activities, subject information, group exercises, and handouts. A section called 'Tips for Facilitators' suggest ways to use a participative learning approach. The content and handouts were designed for the special needs of older adults.

The second curriculum guide, Preventing Cancer in the Workplace and Community (Li, 1983), was designed at the University of California - Los Angeles (UCLA) and tested at Empire State College in New York. It concentrated on cancer prevention in the workplace and community. There are two volumes but since the second volume is programmed instruction for self-learning only Volume I will be described. This curriculum consists of a series of nine individual modules, each designed as a cohesive unit to be taught during a three-hour session. Each module contains objectives, content information, special terms used, teaching methodologies, class exercises with study questions, assigned projects, and references. The program
was developed for classroom instruction and would need adaptation for use in other settings or with older adults.

Aging and Cancer

Normal aging

Aging is a natural phenomenon occurring at differing rates from person to person. It is a continuous process of change occurring throughout what Dugan and Scallion (1984) term the trimesters of the life cycle: childhood, adulthood, and older adulthood. The process, unique to each person, relates to both genetics and lifestyle (Kane, Ouslander, & Abrass, 1984). The result is the marked heterogeneity of elderly people (Crawford & Cohen, 1984).

Physiologic aging is not a pathologic state. The ability to distinguish between normal aspects of aging and pathologic changes is critical to caring for older adults. Yet, we lack precise knowledge of what constitutes normal aging (Ellison, 1985; Kane et al., 1984). In Essentials of Clinical Geriatrics, Kane et al. (1984) wrote that "one of the most intriguing challenges in medicine is to unravel the process of aging" (p.3). Cross-sectional studies done in the past provide inadequate information to explain changes in older adults because those over 65 grew up in a different environment and basically represent a cohort of survivors (Kane et al., 1984; Rakowski, 1988).
Some changes in body systems occur frequently in older persons and are generally accepted as part of the aging process. These modifications are thought to be the result of gradual changes that remain unnoticed until the loss is profound due to the redundancy of tissue in certain body systems (Kane et al., 1984). A summary of these changes follows:

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<th>Overall</th>
<th>Aging results in a decreased ability to maintain homeostasis (Burns, 1982).</th>
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<tr>
<td>Cardiovascular</td>
<td>Elongation/tortuosity of arteries, increased thickening of intima and fibrosis of media of arteries, decreased rate of cardiac hypertrophy, and sclerosis of heart valves leads to decreased cardiac output, decreased heart rate in response to stress, and decreased compliance of peripheral vessels (Kane et al., 1984).</td>
</tr>
<tr>
<td>Renal/Urinary</td>
<td>An increased number of abnormal glomeruli result in decreased creatinine clearance, decreased renal blood flow and decreased maximum urine osmolality. In men, an enlarged prostate may limit urine flow (Kane et al., 1984).</td>
</tr>
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| Pulmonary                    | A decreased elasticity and cilia activity results in diminished vital }
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<tr>
<th>Category</th>
<th>Description</th>
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<tr>
<td>Gastrointestinal</td>
<td>Capacity and maximal oxygen uptake as well as decreased cough reflex (Kane et al., 1984). Decreased production of hydrochloric acid and saliva result in less large bowel motility (Burns, 1982).</td>
</tr>
<tr>
<td>Skeletal</td>
<td>Osteoarthritis and loss of bone substance leads to decreasing bone mass (Burns, 1982). Arcus senilis, decreased pupil size and growth of lens results in decreased depth perception, decreased accommodation, hyperopia, and decreased color sensitivity (Campbell &amp; Lancaster, 1988).</td>
</tr>
<tr>
<td>Eyes</td>
<td>Degenerative changes in ossicles, atrophy of the external auditory meatus and cochlear hair cells combined with loss of auditory neurons results in decreased perception in higher frequencies and decreased pitch discrimination (Burns, 1982). Some hearing loss occurs in 50% of older population, men being affected more than women (Campbell &amp; Lancaster, 1988).</td>
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A decrease in the cortical cell count results in slower psychomotor performance, decreased/changed intellectual performance, and decreased hours of sleep and rapid eye movement (REM) sleep (Kane et al., 1984).

Explaining the reason for the gradual losses experienced as people age is the task for researchers today. Currently, there are three major theories of aging: (a) cellular, (b) autoimmune, and (c) neuroendocrine (Kane et al., 1984). The cellular theory of aging considers that two mechanisms - genetic instability and cellular damage - contribute to the aging process. Genetic instability refers to copying errors in DNA transcription while cellular damage refers to the 'wear and tear' on cells as they age. The autoimmune theory contends that aging doesn't result from passive wearing out of body systems but from active self-destruction, mediated by the immune system and regulated by genetic, environmental, and endocrine factors. A third theory suggests that neural and endocrine changes act as pacemakers for cellular and physiological aspects of aging (Kane et al., 1984). Irrespective of which theory or combination of theories is proved correct, the result of the aging process is an increased cancer risk among older individuals.
Relationship of cancer to aging

According to Crawford and Cohen (1984), over one-half of all cancers in the U.S. occur in the 11% of the population over age 65. The probability of developing cancer increases from one in 700 at age 25 to one in 14 at age 65. In general terms, getting older is the single greatest risk factor for the development of cancer (Welch-McCaffrey & Dodge, 1988). Only four cancers are exceptions to this age-cancer relationship (Hodgkins, acute lymphocytic leukemia, bone/joint cancer, and testicular cancer) and even those cancers have secondary increases in incidence with advancing age (Crawford & Cohen, 1984). By age 80, when cancer incidence actually decreases, the combined incidence of cancer confirmed either during life or at autopsy is over 40%.

Theories of cancer causation

Theories of cancer causation are closely related to the theories of aging previously discussed. The interaction of heredity and environment are central to any discussion of cancer causation. Two basic concepts attempt explanation of the relationship between aging and cancer: (a) that the "passage of time may simply be permissive in clinical expression of cancer allowing more time for expression of previous carcinogenic stimuli" or (b) that "specific changes of the aging process may enhance the development of cancer"
Evidence from rapidly growing areas of research implicates age-related genetic, biochemical, and physiologic changes that may alter the steps of initiation, promotion, and progression of neoplasia in the elderly (Pitot, 1982, 1983; Crawford & Cohen, 1984).

**Myths about cancer and stereotypes of aging**

Since knowledge about aging and cancer has been limited until recently, myths about cancer and negative stereotypes regarding aging have had wide acceptance by the general public and many health professionals. The consequence of these misperceptions is that older adults participate less in cancer screening programs and are diagnosed with cancer in more advanced stages (Weinrich & Weinrich, 1986; Frank-Stromborg, 1986). Thus, these myths and stereotypic beliefs must be addressed if appropriate, effective cancer awareness programs are to be developed.

Myths about cancer stem from ignorance and fear. In the early decades of this century, cancer replaced tuberculosis as the most dreaded disease: cancer meant death (Sontag, 1977). Lack of knowledge about the disease allowed development of the belief that cancer was somehow shameful, a punishment for past mistakes (Rimer, Jones, Wilson, Bennett, & Engstrom, 1983; Weinrich & Weinrich, 1986). Further, many felt that cancer was contagious so people with cancer often lived in virtual isolation -
without friends or support (Sontag, 1977). As a result, older people have long-standing beliefs about cancer arising from the attitudes of the era they grew up in.

At least two myths exist about cancer treatments. Cancer therapies are relatively new and early attempts at surgical intervention or administration of chemotherapy sometimes resulted in the patient feeling worse than before. This occurred because (a) surgery revealed widespread disease that couldn't be removed and (b) chemotherapy was initially used only as a last resort so that an already weakened person was left in poor condition to recover a measure of health after treatment. From these circumstances, came the wide-spread belief that the treatment was worse than the cancer (Rimer et al., 1983).

Today better treatments for cancers diagnosed at earlier stages means that the treatments do not need to make people as ill and slow, lingering deaths of metastatic disease are less frequent.

A second myth about cancer treatment is that surgery spreads the cancer. According to the myth, surgery allows contact of the cancer with air and by an unknown mechanism exacerbates the disease (Burns, 1982). This belief is false but appeared to be happening because it is not uncommon for the extent of the disease to be revealed after surgery. Then, the person with cancer must attempt recovery from
cancer as well as recuperate from surgery and indeed, appears sicker than before.

Finally, one cancer-related myth concerns the problem of pain. A mistaken belief exists that pain is a first or initial sign of cancer (Weinrich & Weinrich, 1986). Unfortunately, pain is not usually a first symptom of cancer. Instead, many times pain is a symptom of advanced cancer. Delaying medical advice until a person experiences pain lessens the chances of a remission or cure.

For the older adult as well as many younger people, believing myths about cancer may lead to inattention to health care needs. Interwoven with these myths are stereotypes about old age. These stereotypic beliefs about aging may serve as a further obstacle to prevention or early detection of cancer. Both the general public and health professionals need to learn to distinguish reality from stereotypes about old age.

Stereotypes are defined as socially-held overgeneralizations regarding people who share some external characteristic (Whitbourne & Sperbuck, 1982). Stereotypes about old age include: (a) that 'feeling bad' is normal, (b) that memory loss and/or senility are inevitable, and (c) that old age leads to illness and decline (Minkler, 1978; Crawford & Cohen, 1984; Ellison, 1985). These stereotypes generally center on the belief that the process of aging represents universal biological deterioration (Frank
Stromborg, 1986). This is consistent with the image of old people as being wrinkled, gray-haired caricatures of their former selves and totally ignores the marked heterogeneity of people over 65.

Traditionally, old age was marked by reaching age 65. Increasingly older adults are divided into three groups: the young-old (age 65 to 74), the mid-old (75-84), and the old-old (over 85) (Given & Given, 1989). Old age now spans over 30 years and therefore, older adults must be considered individually with labels applied cautiously. It is true that those over 65 usually have at least one chronic condition but over 80% live independent lives (Dugan & Scallion, 1984). Research has shown that some body organs function quite efficiently into the ninth decade of life while others deteriorate earlier (Frank-Stromborg, 1986). Recognition that health is possible throughout the lifespan is necessary if stereotypic beliefs are to be resolved.

Cancer in the Older Adult Male

With each decade of life, the risk of cancer increases. For older adult males, the risk of developing cancer is four times that of middle-aged men (Keintz et al., 1988). Both the incidence and mortality rates of cancer are higher in older men that for the same age women, in part because of the excessive number of cases of prostate cancer compared to breast cancer in this age group (Crawford & Cohen, 1982).
The major cancers affecting the older adult male, in order of incidence, include lung, prostate, and colorectal cancer. (Crawford & Cohen, 1984). If melanoma and other skin cancers are lumped together, they also contribute significant numbers of cancer cases for men of all ages (American Cancer Society, 1988). Testicular cancer occurs infrequently in older men; however, many of the estimated 350 deaths from this disease in 1988 will be men over 60. This is primarily because of the advanced stage of disease at time of diagnosis and also that the treatment in later stages is very toxic.

The American Cancer Society estimated that in 1988 over 450,000 men would be diagnosed with cancer and that approximately 263,000 men would die. Many of these men were over age 60. For example, almost all prostate cancer is detected in men over 60 and this disease alone accounted for 99,000 cases of cancer and 28,000 deaths in 1988 (American Cancer Society, 1988). Eliminating death from just this disease would decrease the mortality rate from cancer for men by almost 10% for 1988. More efforts at limiting the effects of cancer in older adult males are needed.

In general, prevention efforts are aimed at promoting health. A common way of accomplishing this is through health education, which is often combined with information about screening for earlier detection of disease. For the most part, the assumption in the past has been that health
promotion could only occur if illness was absent. An individual moving to the illness end of the health-illness continuum was considered a target for secondary or tertiary prevention efforts only (Burns, 1982). Currently it is believed that a preventive health orientation can occur in the presence of disease, eliminating some reasons used in the past for excluding older people from health promotion and early detection activities.

Regardless of the potential prevention has for promoting and improving health, selection of specific cancers for intervention is controversial. There are several criteria that should be met in justifying screening (Lewy, 1980). Age is not one of those criteria although the elderly frequently are ignored with respect to screening tests. It has been shown that despite the fact many of the elderly are under treatment for coexistent diseases, screening for cancer is not performed (Crawford & Cohen, 1984).

The following criteria are used to justify screening:
- The problem must be important, that is, of significance to the individual and detrimental to health if left untreated
- Effective treatment must be available: early detection should lead to more efficient treatment and a better diagnosis
- Screening tests should be easy to perform and present minimal discomfort
- The natural history of the disease should be understood and there should be a latent, early symptomatic phase that would warrant detection during this period
- Condition should be prevalent or especially serious
- Tests should be sufficiently sensitive and specific, resulting in few false positives or negatives (Lewy, 1980)

A disease selected for intervention should be consistent with as many of the criteria as possible.

In 1980, the American Cancer Society changed its recommendation for the screening of high risk populations (Burns, 1982). These controversial changes were based on the criteria pertaining to cost-effectiveness of screening and on the effect of each discovery on treatment or cure. As a result, lung cancer at any age is not included in screening. Early diagnosis seems to make little difference in the trajectory of the disease and treatments are still ineffective with only 13% of lung cancer patients living five years or more (American Cancer Society, 1988).

Colorectal, prostate, and testicular cancer meet the necessary criteria. They all have latent periods during which time detection and treatment can alter the course of the disease. Treatments of these three cancers at an early
stage lead to a better prognosis for the affected individual. Prostate and colorectal cancers are prevalent in American society while the consequences of testicular cancer, in terms of diminished quality of life and toxic therapy, are serious enough to warrant inclusion in health promotion programs for older men. Finally, screening tests for these diseases are cost-effective. In the case of testicular cancer, the individual may screen themselves using testicular self-examination. The current status of colorectal, prostate, and testicular cancer with respect to screening, diagnosis, and treatment are detailed in the Curriculum Guide.

Summary of Literature Review

As stated previously, the aging of our society is inextricably linked with the future of health care in the United States. Finding a way to fund the cost of health care for the growing elderly population is one of the tasks health professionals are faced with today. Prevention and early detection of cancer in older adults is one method being considered to reduce health care costs.

Because cancer incidence increases with age, older adults are at greater risk for developing cancer and should receive appropriate education and screening. Aging is a natural phenomenon, a continuous process, unique to each
person and related to both genetics and lifestyle. Despite imprecise knowledge of aging and its relationship to cancer, it is known that old age need not conjure images of graying, wrinkled people with reduced intellectual capacity. Older adults are interested in health and should be given appropriate information to maintain their health. This will necessitate unlearning the myths about cancer and stereotypes about aging held by many in our society, especially those over 65: who grew up in an era when cancer was fatal and senility in old age expected. Few cancer awareness or education programs have been tailored to meet the educational, cancer risk, and lifestyle needs of older adults. More experiments like the "Growing Younger" health awareness program in Idaho will be needed as well as specific cancer control programs like CAPROC in Philadelphia. Effective health teaching will need to incorporate information about age-associated changes such as diminished sight or hearing that affect an older adults learning abilities. Targeting older adult males for cancer awareness intervention has the potential for saving the lives of many men, as well as decreasing costs of health care for this group. Additionally, it would add to the quality of life of many older women who lose their spouses prematurely each year to preventable cancers.
Many cancers occur with greatest frequency in people over 50 and in general terms, age is the single greatest risk factor for developing cancer. This makes cancer a real concern for an aging society such as the United States, where greater numbers of people are living more years. Prevention is possible in a substantial number of cases and early detection enhances the possibility of a cure in others. Yet many of those people at greatest risk hold erroneous beliefs that prevents them from seeking appropriate care. It is this at risk group, people over 50, who have the most to gain by being informed about prevention and symptoms of cancer.

Since the cancer risk for older men is four times that of middle-aged men, and men have not usually been targets of cancer awareness programs, this curriculum guide focuses on educating men over the age of 60.

The primary foci of this curriculum guide are:

a) to educate older adult males about their increased risk of developing cancer
b) to inform older men about differences between
aging and cancer symptoms so that they can seek appropriate preventive health care or medical evaluation.

This guide can be used in community senior citizen centers, hospital wellness programs, churches, or other places where older adults meet.

Introduction

This section includes background information on cancer statistics, age-related concerns, and ethnic/cultural influences.

Mere mention of the word "cancer" evokes an emotional response in most people. In our society, it is widely considered the most dreaded of all disease - little wonder as one out of four Americans will develop cancer in his or her lifetime and one out of five will die of this disease! However, the impact of cancer can be substantially reduced by practicing what we already know about preventing the disease.

Some critics will say "But how can you prevent cancer when the cause is not understood?" It is true that, despite increase in knowledge about cancer causation, what we know is limited and controversial. Mass media attention to the problem leads to the impression that the potential for cancer is all about us: in the air we breathe, the food we
eat, and the materials we work with. Most scientists agree that certain - not all - characteristics of the environment do contribute to a higher cancer risk and that dietary, exercising and smoking habits are lifestyle choices that may increase cancer risk. Everything does not cause cancer and the risk of developing cancer can be reduced by taking appropriate action based on what is already known.

The challenge of a cancer awareness program for older adults is not only to credibly and effectively communicate information about cancer prevention practices but (also) to correct misinformation older adults may have regarding aging and cancer. Before older adults can see the importance of cancer prevention practices for themselves, they must be aware that while getting older is inevitable, getting cancer is not; that their life expectancy is such that there is time to make positive lifestyle changes. Additionally, they must understand their risk for developing cancer, as well as how to differentiate between symptoms of cancer and of aging.

Planning programs for older adults is similar to planning for other groups; however, several concerns need to be highlighted. Age-related concerns and ethnic/cultural influences are considered separately because of their importance. Teaching older adults is a new experience for many educators and an instructor must be sensitive to the
needs and concerns of the group. For example, the decision to limit this program to older men was made not only because of their identified cancer risk but (also) because of recognition of the difficulty many older adults have in discussing their concerns about their bodies and/or health in audiences of both sexes.

For some educators, teaching older adults is not a new experience but teaching cancer prevention to an older audience is new. Until recently, the emphasis on prevention was directed to younger populations. Cancer is a greater problem for people over 50 and educators need to understand the magnitude of the problem for older males.

Large numbers of men over 60 are diagnosed with or die of cancer each year. Certain cancers - lung, colorectal, and prostate - occur more frequently than others. The American Cancer Society (ACS) estimates that in 1989 there will be 73,000 new cases of colorectal cancer in men and 94% of these cases will be in men over 50. Of the estimated 103,000 new cases of prostate cancer in 1989, over 80% will be found in men over 65, virtually all will be in men over 50. Many of the estimated 101,000 new cases of lung cancer in men will be older men as well. Mortality rates for these cancers in 1985 reveal that 98% of deaths were from prostate cancer, 91% from colorectal cancer, and 89% from lung cancer (ACS, 1988) in men over age 55. This represents the loss of approximately 125,000 lives in only one year. Skin cancer
is common among older adults but is rarely fatal. Testicular cancer, predominantly a disease of young men, shows a secondary rise in older men and is usually diagnosed in later stages which makes treatment more difficult. Content in this guide will include information on colorectal, prostate and testicular cancer. The first two cancers were selected because of their prevalence in the target group, the possibility of prevention with lifestyles changes, and the availability of effective treatment with early detection. Testicular cancer was included because the impact of this disease can be lessened considerably with use of testicular self-examination. Despite its prevalence, lung cancer was not included because (a) good screening tests are not available, (b) early diagnosis does not seem to alter the course of the disease, and (c) there are smoking cessation courses available which could be adapted to the needs of an older audience.

Specific Considerations in Teaching Older Adults

As stated previously, teaching older adults is a new experience for many educators. Awareness of age-related concerns and ethnic/cultural influences can alleviate anxiety about how best to teach the well-elderly.

Age-Related Concerns

Health promotion programs for older adults are an important addition to the existing health care system.
Health promotion assumes and reinforces the premise that older adults are capable of learning about and promoting their own health given access to information and skills needed (Fallcreek & Mettler, 1984). It enhances the capability of older adults to maintain independence and improve the quality of their lives.

Effective health teaching of older adults requires that an instructor have a comprehensive appreciation of the effects of aging and the developmental changes that sometimes frustrate older people (Campbell & Lancaster, 1988). Regardless of individual variation in aging, there is a commonality to the biologic aging process affecting every human being. The biologic changes causing the older individual the most frustration are changes in sight, hearing, and mental processing time. Vision changes, related to the structure changes of the eye, make it difficult for the elderly to distinguish blues, greens, and violets (Matteson & McConnell, 1988). The use of large print and of the colors red, orange, yellow, brown or black is recommended for audio-visual materials.

Hearing loss resulting from degeneration of the inner ear not only makes hearing certain sounds difficult but makes understanding speech difficult as well (Campbell & Lancaster, 1988). This can lead to anxiety, withdrawal, or even paranoia for the hearing-impaired person who feels everyone around them is mumbling. An instructor must
remember to speak slowly, concisely, and audibly confirming with participants that they heard what was said.

Older adults do not lose intellectual ability, but rather experience changes in intellectual capacity. Fluid intelligence or the capacity to think, reason, or perceive relationships in abstract terms decreases in the elderly (Alford, 1982). Four changes in learning result from decreased fluid intelligence: (a) slowed processing time, (b) stimulus persistence, (c) decreased short-term memory, and (d) test anxiety. Older adults need more time to think through new information. Kim and Grier (1987) found that simply slowing speech from 156 words to 109 words per minute increased older adults comprehension. If time isn't allowed, the older person may still be thinking of the previous concept when the instructor moves on (stimulus persistence). Since short-term memory is difficult for the older learner, time should be spent reinforcing instructions or information that are given. Finally, because the elderly have difficulty remembering new information, taking tests may create anxiety; therefore, testing should be oral and accomplished while giving the person encouragement for what they know.

Besides biologic changes, there are psychologic and social changes that are related to the developmental tasks of older adulthood: adjusting to decreasing physical strength and health, adjusting to retirement and reduced
income, adjusting to the death of a spouse, and adapting to new social roles (Dugan & Scallion, 1984). They are also concerned with maintaining the highest possible health. Older individuals must adapt to many new stress-producing situations at a time in life when their capacity for adjustment is already diminished. Each individual has a unique frame of reference determined by past experiences, capabilities, quality of sense organs, attitudes and beliefs (Welch-McCaffrey, 1986; Campbell & Lancaster, 1988). This frame of reference influences how well a person will respond to learning experiences. An instructor must understand that an older person's viewpoint will most likely include belief in the myths about cancer and stereotypes about aging. These issues have to be addressed if programs are going to be effective.

There are other considerations in teaching older adults. Many of the suggestions reflect common sense application of the known aging changes discussed previously. Culbert and Kos (1971) recommended that programs be kept short as older people have shorter attention spans; that audio-visuals not be congested with factual information and be made in large-sized, wide-spaced words; that there be adequate lighting in room; and that written tools use a 4th grade vocabulary level. As Lowy and O'Connor (1986) noted: the educational attainment of current population of older adults is much lower than that of younger generations and
care must be taken to ensure their understanding of material presented. Because of poorer educational backgrounds many older adults think they cannot learn (DeCrow, 1976). Finally, Welch-McCaffrey (1986) suggested that seating should be arranged so that the audience is close to the instructor and also that the instructors should avoid covering their mouths when speaking. Female instructors might want to wear bright lipstick so that those who lipread can see better. All of these considerations might improve the quality of interventions directed toward older individuals.

Ethnic and Cultural Influences

Effective health teaching of older adults also requires that an instructor be aware of the great diversity in people over 60. Despite sometimes being called the great equalizer, age alone cannot adequately describe a group of people whose ages span over 30 years. While age and gender are important demographic variables to consider in planning programs, equally important are the variables of race and ethnicity. Each will have an impact on the acceptance or understanding of any planned presentation. Special sensitivity to the nuances of human diversity is necessary with older as well as younger audiences. Any program or curriculum should be adaptable to reflect the norms of the target group. With older adults it is extremely important to understand their need for a sense of continuity -- a
connectedness -- that comes from a return to one's roots, to ethnic origins.

In 1980, non-whites represented 16.8% of the total population of the United States but only 10.2% of non-whites are over 65 (Lowy & O'Connor, 1986). It is important to be aware that the health concerns and health beliefs or practices of various non-white groups may not reflect those of the white majority. A summary of pertinent information about minority groups follows.

**Black American Elders**

**Demographics:** Only eight percent of black Americans are over 65. As a group, elderly black Americans are mostly women (57.6%), Southern (60.8%), urban (66%), and are over represented among the poor. While 41% of white Americans graduate from high school, only 16% older black Americans graduate.

**Health Concerns:** The life expectancy for black Americans is less than for caucasians. Black men have life expectancy of 65 years. The leading causes of death in this group are diseases of poverty (i.e., tuberculosis [TB]), heart disease, and prostate cancer.

**Health Beliefs/Practices:** Among black Americans illness is often attributed to demons or evil spirits. Many believe in traditional healing which sometimes includes voodoo. Prayer is considered a powerful healer and the 'laying on of the hands' is often used.
Old and young people in this group are cared for by the community and the elderly are respected. Many black Americans are Muslim and have dietary restrictions and other tenets regulating lifestyle. Prevention of illness is not generally accepted as the responsibility of physicians and rural black elderly people consider hospitals places to die.

**Asian-American Elders**

**Demographics:** Only 6% of Asian-American elders are over 65. This group, including the East Indians and Pacific Islanders, live mostly in California, Hawaii, or Washington. Twenty-six percent of these elders graduated from high school.

**Health Concerns:** In Chinatown, elderly men may be sick and alone due to pre-World War II immigration laws that did not permit women and children to accompany men to the United States. Among elderly Asian-Americans, men outnumber women by 30% in the over 65 age group. Recent immigrants to the United States may only speak their native language. Predominant illnesses among this group are diseases of poverty, hypertension, alcoholism, suicide (three times the national rate), and certain cancers such as esophageal and liver cancer.

**Health Beliefs/Practices:** In this group, health is considered to be a state of spiritual and physical
harmony with nature. The body is viewed as a gift to be retained whole and sound at the end of their lives. Many Asian-Americans rely on traditional healing methods and rely on family for assistance, not the formal health care system. Chinese medicine emphasizes prevention unlike the American system which uses crisis intervention. Elders in this group may be inhibited from complaining or expressing pain or need due to values of modesty, self-reliance and self-effacement.

Native American Elders

Demographics: Native Americans include Indians, Aleuts, and Eskimos and only 5.3% of this group are over age 65. Most live in southwestern states or Alaska and 52% live in rural areas. Only 22% of Native Americans over 65 graduated from high school.

Health Concerns: The life expectancy of native Americans is only 65 years for both sexes according to the Indian Health Service. The leading causes of death include poverty-related illnesses, accidents, heart disease, cirrhosis of liver, and alcoholism.

Health Beliefs/Practices: In this group, medicine and religion are connected and treatments for illness include religious rituals. The emphasis is on harmony with nature. Native Americans depend largely on family and friends for help as they live in isolated places.
As a group, they tend to mistrust the formal health care system.

Hispanic Elders

Demographics: Among Hispanics, only 3.7% of the group live beyond 65. The largest population centers are in Texas and California and they tend to live in urban areas (86%). Hispanic elders have retained their culture and language and only 19% of the elderly graduated from high school.

Health Concerns: Elderly Hispanic people have poor health related to poverty. The leading causes of illness are TB, malnutrition, and respiratory illnesses.

Health Beliefs/Practices: The traditional Mexican belief system contains belief in the supernatural and reliance on rituals and knowledge of medicinal plants. Illness is viewed as a loss of balance between man and nature. Health is often considered a matter of luck, a gift from God, or a reward for good behavior. Many of this group rely on prayer and diet recommended by healers.

White Ethnic Elders

Demographics: Some white Americans did not fully assimilate but kept their language and culture. Polish Americans retained both language and culture as did Italian Americans. The latter group also believe that
air affects cancer, part of an overall belief that drafts cause illness.

Structure of the Curriculum

This curriculum is divided into four content areas to be presented as a series of six 60-minute sessions. The material is organized to provide a base for an instructor preparing a program. Each session is designed as a cohesive unit but an instructor can utilize the material as best fits the needs of the audience. An overview on cancer and aging for general audiences could be created by combining material from sessions 1 and 3. A program on cancer prevention for older adults could be created by using the information on cancer myths from session 1, aging stereotypes from session 3, and cancer-related check-ups from session 6. The content is as current as possible but will need to be updated periodically.

The format for each session is the same and includes session title, length, agenda with objectives, handouts, other materials needed, activities with methodology, evaluation, and a reference bibliography.

Goals

The overall goal of the program is to increase the knowledge of older men about cancer and cancer prevention. Specific education goals are that older adult males will (a)
become aware of the value of early detection of cancer, (b) learn to identify personal cancer risk factors, (c) learn how to reduce the risk of developing cancer, and (d) become motivated to seek appropriate cancer screening.

Evaluation

Evaluation is an integral part of any health awareness program. In 1933 Hilda Smith, a prominent educator, suggested the following requisites for a teacher of adults:

- knowledge of subject and ability to communicate it
- knowledge of teaching techniques
- willingness to learn from students and relate teaching to their experience
- broad cultural perspective, free from prejudice
- interest in students as individuals and a belief in their desire to learn
- warm, sensitive personality
- sense of humor (Lenz, 1980, p. 71)

Of course, it is highly unlikely that any instructor will embody all of these characteristics. However, it is important that anyone teaching cancer awareness to older adults believe (a) that they can/will learn when given the opportunity and (b) that cancer prevention is important for older adults. A medical background is not necessary to teach from this guide, but an instructor needs to be comfortable teaching adults.
Evaluation of the program should be completed at more than one point in the course to allow for sharing the information, implementing suggestions or getting additional information on incomplete statements. Comments and suggestions from session evaluations should be retained for use in revising materials or presentations. The form below can be used as the course evaluation at the end of the 6th session. Follow-up interviews conducted by the instructor may provide additional feedback on sessions or on a participant's changed behavior.

Evaluation Form

Please take a few moments today to reflect on the information that has been presented in this course. By answering honestly the questions below, you will provide valuable information which can be used to plan future sessions and improve the quality of teaching. Thank you.

Age (check one):  

60-64  65-69  

70-74  75-79  

Not at all  Somewhat  Very much

1. I found the course enjoyable.

2. The structure of each session was right.

3. The pace suited me.
4. Everyone had a chance _______ _______ _______ to participate.

5. I felt respected. _______ _______ _______

6. What do you consider to have been the most valuable experience for you during the course? Why?

7. What aspect of the course could have been strengthened? How?

8. Any additional comments?

Your name (optional)________________________

Suggested Resources

Annotated References


Excellent reference on the aging process and the influence of ethnic diversity. Synthesizes social gerontological literature on major ethnic groups.

Useful reference on techniques to teaching adults. Up to three pages may be reproduced for educational and training activities. Includes creative ways to introduce a new group or present information.

Annual report prepared for inclusion in the journal produced by the American Cancer Society. Contains information on cancer incidence, prevalence, mortality for white and black Americans.

This directory provides a guide for health organizations, volunteer agencies, and other groups interested or involved in cancer prevention. Contains comprehensive but not complete listing of ongoing cancer prevention activities throughout the country.

Informative guide including 10 steps to designing or revising curriculums.

**Pamphlets**

There are many pamphlets available for use with cancer-related programs. They can be obtained from the agencies listed in the Resource section and should be requested several weeks in advance of the program. In selecting pamphlets for use in this series for older men, consideration was given to the learning needs of an over age
60 population. Pamphlets were critiqued according to size of print, standard or bold type, use of color, and reading level. If an instructor knows the composition of the audience and is aware of educational background or visual problems among participants, other materials might be developed which are better suited to an older audience. Of those pamphlets being used in this series, only the National Cancer Institute (NCI) Cancer Facts for People over 50 and the pamphlet Is My Mind Slipping? from Androus Gerontology Center uses large, bold print; dark letters or letters outlined in black; and are written for 6-8th grade reading level.

Agencies to contact for materials or assistance

Aging:

- National Council on Aging
  600 Maryland Avenue, SW
  West Wing 100
  Washington, DC 20024

- National Retired Teachers Association-
  American Association of Retired Persons
  1909 K Street, NW
  Washington, DC 20049

- Area Agency on Aging (see local telephone directory)

- National Pacific/Asian Resource Center
  on Aging
  927 15th Street, NW, Room 812
  Washington, DC 20005

- National Council on Black Aging
  Box 8522
  Durham, NC 27707
- National Indian Council on Aging
  P. O. Box 2088
  Albuquerque, NM  87103

- National Hispanic Council on Aging
  Sociology Department
  Weber State College
  Ogden, UT  84408

Cancer:

- American Cancer Society, Inc.
  777 Third Avenue  (or local unit)
  New York, NY  10017

- Office of Cancer Communications
  National Cancer Institute
  National Institutes of Health
  Bethesda, MC  20014

- Department of Cancer Prevention and Control
  The University of Texas System Cancer Center (UTSCC)
  M. D. Anderson Hospital and Tumor Institute
  Houston, TX  77030

Health Promotion for the Elderly:

- U. S. Department of Health and Human Resources
  Office of Disease Prevention and Health Promotion
  Washington, DC  20201
Content Areas

Topic: Nature of Cancer

Session One: Overview, What is Cancer?

Length: 60 minutes

Agenda:

1. Welcome participants, preview the agenda, make announcements.

Note: If participants do not know each other, the activities should be preceded by introductions. This can be accomplished using an introductory game. For example, have each participant introduce himself or herself by telling the group something about his or her name: what it means, its ethnic origin, who he or she is named for (Begin with the instructor).

2. Facilitate discussion of participants' expectations of course; explain the goals of course.

3. Define cancer.

4. Describe historical background of cancer including Twentieth Century.

5. Identify trends in cancer incidence and mortality.

6. Identify seven warning signals.

7. Evaluate the session.

Handouts:

Pamphlet: Cancer Risk Factors (ACS)

Fact sheet: Cancer Facts for People over 50 (NCI)
Handout 1A: Goals of Class
Handout 1B: Glossary Sheet

Other materials needed for instruction:

Transparencies: Agenda
Normal cell, abnormal cell*

CAUTION

*from ACS Nature of Cancer teaching kit

Activities with Methodologies:

Activity 1: Welcome participants, preview agenda, make announcements

Methodology: Transparency
After welcome, direct attention to transparency.
Briefly list each item. Make any necessary announcements.
Utilize introductory game if necessary.

Activity 2: Facilitate discussion of participants' expectations of course, explain the goals of course.

Methodology: Group discussion
Handout 1A

Activity 3: Define cancer

Methodology: Group discussion
Lecturette
Handout 1B

Understanding what cancer is requires an examination of commonly held beliefs about cancer. Utilize the following
questions to assess participants knowledge of cancer:

- What is cancer?
- Is cancer contagious?
- Do bruises cause cancer?
- Does air make cancer spread?

Other myths about cancer commonly include: that cancer is punishment for past mistakes, that cancer is always painful, and that cancer is usually fatal.

After discussing questions and myths, present the following information (refer to Handout 1B for terms):

- Cancer is a family of diseases, not one disease
- Cancer is characterized by uncontrolled cell growth and spread. Normal cell reproduction occurs in an orderly fashion to replace worn out or injured cells
- An abnormal mass of cells is a tumor. Tumors can be benign or malignant. - Refer to glossary sheet. A malignant tumor is called a cancer or neoplasm.

Activity 4: Describe historical background of cancer including the 20th Century

Methodology: Lecturette

Cancer has been recognized for centuries. It can be traced more than a million years: Egyptian mummies preserved evidence of cancer in bones. Over 300 years B.C., Hippocrates described cancer using a Greek term (Karkinos)
which became the word carcinoma. By the 1st Century A.D. the first known operation for cancer had been done. However, not until the 19th Century was the "cell" identified and advances in knowledge made. After Pasteur's work on infection and Lister's on antisepsis, surgery began to be more successful. By the close of the 19th Century, radiation had been discovered by Pierre and Marie Curie providing two treatment choices.

Cancer is seen as a disease of an industrialized society because of the precipitous rise in the number of cancer deaths in the 20th Century. The rise is due to changes in technology, science/medicine and public health including:

- development of vaccines and antibiotics reducing the severity of diseases such as influenza & pneumonia
- organisms causing diseases such as typhus and diphtheria were eliminated through sewage treatment and water purification increasing life expectancy
- growth of industries using chemicals & radiation exposing more people to cancer-causing substances
- improved record keeping by state health departments and tumor registries providing accurate information
- medical advances have improved prognosis of people with diseases of heart or cancer
- overall changes in life expectancy: fewer infant & young children die of infectious diseases, more people of all ages are living longer with chronic diseases

From 1900 to 1970, the leading causes of death in the United States shifted from acute, infectious diseases such as pneumonia and influenza to chronic diseases such as diseases of the heart and malignant neoplasms.

Activity 5: Identify current trends in cancer incidence and mortality

Methodology: Lecturette

Because cancer is many diseases, not one, it is important to understand the incidence and mortality rates of specific types of cancer, rather than overall cancer rates. Cancer affects at least one member of 70% of American families. Very few people avoid direct or indirect confrontation with this family of diseases during their lifetime.

Participants need to understand:

incidence rate = the number of new cases per year per 100,000 population

prevalence rate = the number of new cases of disease per year and the number of previously existing cases of disease per 100,000 population
mortality rate = the number of deaths per year per 100,000 population

General trends can be found in American Cancer Society Facts & Figures - 1988 (or future editions):
- increased incidence rate of lung cancer among men
- decreased mortality rate from stomach cancer among men
- overall, incidence & mortality rates for men and women similar
- increasing number of black males with prostate cancer

Activity 6: Identify seven cancer warning signals

Methodology: Group discussion

Flipchart or blackboard

Transparency

Many people cannot recall the warning signs for cancer. Have participants attempt to recall any they can and write them on flipchart. Then proceed to show them how to use the acronym 'CAUTION' as a memory device (use transparency). Refer to pamphlet (Cancer Risk Factors) from American Cancer Society for written list of warning signals. Additional information on cancer symptoms is in the NCI fact sheet 'Cancer Facts for People over 50'.

Activity 7: Evaluation of session

Methodology: Group discussion
Evaluation forms (needed if the Sessions are presented individually; otherwise, utilize on day of final session as course evaluation)

Explain the importance of the participants honest and thorough evaluation as a means of continually improving the session/course. Ask such questions as: "What were the most useful aspects of this session? How could the session have been improved?" It is essential that the instructor convey receptiveness to constructive criticism.

Handout 1A

Goals of the Course

By the end of the sessions on the Nature of Cancer, we hope that each of you will be able to:

- discuss known facts about cancer
- identify myths about cancer
- explain why cancer rates have risen in the United States in the 20th Century
- recognize the seven warning signs of cancer

By the end of the session on the Relationship of Cancer and Aging, we hope that each of you will be able to:

- distinguish cancer symptoms from normal age changes
By the end of the sessions on Specific Cancers in Older Men, we hope that you will be able to:
- recognize specific cancers which affect older men
- discuss signs and symptoms of cancers
- understand diagnostic tests and treatments of specific cancers

By the end of the session on Risk Assessment and Prevention, we hope that you will be able to:
- identify personal risk factors
- discuss cancer-related check-ups
- identify self-care practices for prevention and early detection.

By gaining knowledge about cancer, you may be better able to prevent or limit its effects on your life.

Handout 1B

Glossary of Terms

Benign = A noncancerous tumor or growth that does not spread to other parts of the body.

Cancer = A general term for about 100 diseases characterized by abnormal and uncontrolled growth of cells. The resulting tumor can invade and destroy surrounding normal tissues.
or spread through the blood or lymph to start new cancers in other parts of the body.

**Malignant** = Cancerous, a growth of cancer cells.

**Metastases** = Cancer growths that started from cancer cells from another part of the body.

**Tumor** = An abnormal mass of tissue.
Session One Agenda

1. Welcome and announcements

2. Goals of course

3. Define cancer

4. Describe historical background of cancer

5. Identify trends in cancer incidence and mortality

6. Identify seven warning signals

7. Evaluation
Cancer's Warning Signals

C hange in bowel or bladder habits

A sore that does not heal

U nusual bleeding or discharge

T hickening or lump in breast

I ndigestion or difficulty in swallowing

O bvious change in wart or mole

N agging cough or hoarseness
Session Two: Cancer - Diagnosis & Treatment

Length: 60 minutes

Agenda:
1. Preview the session agenda and make any announcements.

Option: May want to review session 1 before proceeding with new material.

2. Discuss factors which limit development of an accurate theory of what causes cancer.

3. Explain importance of early detection in cancer diagnosis.

4. Discuss briefly traditional methods of treating cancer.

5. Evaluate the session.

Handouts:

Handout 2A: Glossary sheet

Pamphlet: Everything Doesn't Cause Cancer (ACS)

Other materials needed for instruction:

Transparencies: Session agenda

Cancer theories

Special Preparation: This session contains much technical information. Be sure and review the material carefully. Cancer Care: A Personal Guide by Glucksberg and Singer used in the references is written for a general audience and might be useful for an educator apprehensive about discussing cancer and its treatments.
Activities with Methodologies:

Activity 1: Welcome participants, preview the agenda, make any announcements.

Methodology: Transparency

Read through the session agenda on the transparency and then make any announcements.

Activity 2: Discuss factors which limit development of an accurate theory of what causes cancer.

Methodology: Lecturette

Pamphlet: Everything Doesn't Cause Cancer (ACS)

Transparency: Cancer Theories

What causes cancer? Cancer is many diseases with many causes. It may occur after a series of separate changes over a period of years. There are certain factors which make it difficult to explain the problem of cancer causation by a specific theory:

- Cancer is a general term for many diseases and the exact mechanism in different cancers is unknown.
- There is a latent period before most cancers develop and (a) people do not always know they have been exposed and (b) it is difficult to estimate the level of exposure.
- Data is limited and has not been collected for all
population groups; insufficient information exists from which generalizations can be made. Currently, there are three theories of cancer causation:

(Use transparency)

1. The **viral theory** suggests that viruses are communicable and easily spread to susceptible people. If true, this would account for the widespread incidence. However, only few viruses have been linked to cancer. One example is the link between the Epstein-Barr virus and Burkitt's lymphoma, a lymphatic cancer found primarily in children living in Central Africa.

   Little evidence supports the viral theory for most cancers. If viruses spread so easily, why does cancer not affect everyone?

2. A second theory is the **genetic theory** which implies a hereditary or genetic link (i.e., cancer runs in families). Recent evidence indicates that certain cancers do occur more frequently in some families. Cancers of the breast, prostate, and lung are examples of cancers which seem to cluster in families. The question remains as to whether the clusters are due to genetics or environment (living and working in same geographic area, eating similar foods).
Only a few cancers are examples of genetic-linked cancers such as childhood leukemia in twins and retinoblastoma.

3. The environmental theory is thought to be the cause of an estimated 75-80% of cancer (according to the World Health Organization) and is the dominant theory at this time. "Environment" is a general term and the role of environmental exposures to the overall cancer rate has caused a significant amount of debate among scientists. Three categories of factors are considered when discussing the environmental theory which lend support to its validity:

a. Geographic variation - certain cancers occur with greater frequency in different countries (i.e., cancer of the stomach occurs more frequently in Japan than in the United States) or in differing regions of the same country (lung cancer rates are higher in Texas than Iowa).

b. Migration studies - comparison of the cancer rates of an ethnic group in its native land to the same ethnic group in another place show that cancer rates change (i.e., stomach cancer occurs frequently in Japan, but not in those of Japanese descent living in Hawaii - strong evidence that it is not genetic or inherited).
c. Community studies - comparison of groups of people of various religions show different rates of cancer than other groups (i.e., Seventh Day Adventists and Mormons have lower rates of lung cancer) which may reflect differing lifestyles (neither group drinks or smokes).

Encourage participants to read ACS pamphlet "Everything Doesn't Cause Cancer."

Activity 3: Explain importance of early detection in cancer diagnosis.

Methodology: Lecturette or directed group discussion

Handout 2A - Glossary sheet

In order to guard against cancers that affect older American men it is necessary to understand the importance of early detection and to know which tests are available to increase the chances of finding a cancer early. Earlier diagnosis:

- increases the chances that a cancer will be localized
- increases the chance of successful treatment (cure or long remission)
- lessens the chance of damage to surrounding tissue

Questions for discussion:

Can some early detection tests be done by an individual?

What tests do doctors use to detect cancer early?
Is early detection always possible?

Emphasize that diagnosis of cancer requires cooperation between individual and doctor and that definitive diagnosis requires a piece of tissue (biopsy) to be looked at under a microscope. From this a pathologist can determine the type of cancer. Referring to the glossary sheet, briefly describe the three general classifications of cancer.

Activity 4: Discuss briefly traditional methods of treating cancer.

Methodology: Lecturette

Handout 2A: Glossary sheet

Many older adults have negative attitudes about cancer and its treatments. Briefly discuss what participants know about cancer treatments. One commonly held belief is that chemotherapy is only used in final stages of illness. Another myth that needs to be addressed is mentioned for discussion in Session One: "Does air cause cancer to spread?" Many people believe that surgery allows air to spread cancer faster because the patient is sicker after surgery. Emphasize that a patient may appear sicker because of the advanced state of the cancer at time of surgery and the subsequent need to recuperate from effects of an operation.

Traditional methods of treatment include:

radiation = use of highly concentrated doses of energy in the form of cobalt or radium
to kill cancer cells but also which kills some normal cells. Can be given externally or internally as an implant. Side effects are dependent on the dose and the site irradiated.

surgery = oldest method, used most for tumors that have not spread. Cures many small cancers.

chemotherapy = use of drugs to kill cancer cells, newest form of therapy. Cures systemic cancers such as leukemia. Side effects relate to the dose and how many normal cells are affected.

(Each will be discussed more fully in relationship to specific cancers affecting older men.)

Survival with cancer is dependent on the type of cancer (For example, Hodgkin's disease is cured more often than breast cancer), and the stage the disease is diagnosed in (the earlier the diagnosis, the greater the chance of 5-year survival or cure).

Activity 5: Evaluate the session

Methodology: Group discussion

The material presented in this session may seem overwhelming to participants as it is very technical. Reassure participants that future sessions will review the material, but answer any questions that may have caused confusion at
this time. Also, discuss: "What were the most useful aspects of this session?" How could the session be improved?

Handout 2A

Glossary

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biopsy</td>
<td>removal of tissue for examination under a microscope for purposes of diagnosis</td>
</tr>
<tr>
<td>Carcinoma</td>
<td>a malignant tumor composed of mostly epithelial cells, the cells which cover the inner and outer surfaces of the body (skin, lung, stomach, etc.)</td>
</tr>
<tr>
<td>Chemotherapy</td>
<td>the treatment of cancer with anticancer drugs</td>
</tr>
<tr>
<td>Genetic</td>
<td>hereditary, &quot;runs in the family&quot;</td>
</tr>
<tr>
<td>Leukemia</td>
<td>a malignancy not characterized by a 'solid' mass but by abnormal cells which grow in the bone marrow and circulate in the bloodstream</td>
</tr>
<tr>
<td>Radiation Therapy</td>
<td>a treatment for cancer using high energy radiation from x-rays, cobalt, radium or other sources</td>
</tr>
<tr>
<td>Sarcoma</td>
<td>a malignant tumor developing in connective tissue such as muscles or bone</td>
</tr>
</tbody>
</table>
Session Two Agenda

1. Discuss factors which limit development of an accurate theory on cancer causation

2. Explain importance of early detection in cancer diagnosis

3. Discuss traditional methods of treating cancer

4. Evaluation
Cancer Theories

1. VIRAL

2. GENETIC

3. ENVIRONMENTAL
Topic: Relationship of Aging and Cancer

Session Three: What is normal aging?

Length: 60 minutes

Agenda: 1. Preview the session agenda and briefly answer questions about content in session 2
2. Identify normal age changes
3. Discuss stereotypes of aging
4. Describe relationship of cancer to aging
5. Evaluate the session

Handouts:
Handout 3A: Normal Changes of Aging

Pamphlets: Is My Mind Slipping?
Cancer Risk Factors (ACS)
Cancer Facts (NCI)
Wellness is Ageless (ACS)

Other materials needed for instruction:

Transparency: Session agenda

Special Preparation: This session contains information on aging that an instructor may be unfamiliar with. An easy-to-read book is Alex Comfort's A Good Age. For further information on aging and cancer an excellent discussion by Crawford and Cohen (1984) can be found in the Annual Review of Gerontology and Geriatrics.

Activities with Methodologies:
Activity 1: Preview the Agenda

Methodology: Transparency
Read briefly through session agenda.
Activity 2: Identify normal age changes

Methodology: Lecturette

Pamphlet "Is My Mind Slipping?"

Aging is a natural phenomenon occurring at differing rates from person to person. It is a continuous process which takes place over a lifetime and is influenced, according to current theories, by both genetics and lifestyle. It is not a pathologic state, yet changes do occur as a result of changes or losses in certain body organs which become apparent to many by age 60. Refer participants to Handout 3A and briefly discuss. Emphasize that health is possible throughout the lifespan and there is much individual variation in when changes occur and how much change occurs.

Activity 3: Discuss stereotypes of aging

Methodology: Group discussion

Negative stereotypes regarding aging have had wide acceptance by the general public and health professionals. Older people have acquired these stereotypic beliefs over many years and this may be an obstacle to prevention or early detection of cancer. Stereotypes are defined as socially-held over-generalizations regarding people who share some external characteristic. To find out what participants believe about aging, discuss the following statements:

1. Feeling bad is normal for old people.
2. Memory loss, even senility, are normal and inevitable for older persons.

3. Old age is a time of illness and decline. These statements reflect a belief in aging as a process of universal biological deterioration. Have one or two people describe their image of old people. Does it include wrinkled, gray haired, senile, or dumb? Emphasize that life expectancy today is such that, despite some changes, a man reaching 65 can reasonably expect to live another 14.6 years if he pays attention to his health and learns to distinguish age changes and cancer symptoms.

Activity 4: Describe relationship of cancer to aging.

Methodology: Lecturette

Pamphlets: Cancer Risk Factors (ACS) Cancer Facts (NCI)

The relationship of cancer and aging is important for older men to understand:

- over 50% of all cancers occur in the 11% of the U.S. population over 65
- the probability of developing cancer increases from one in 700 at age 25 to one in 14 by age 65
- men are at four times the risk of developing cancer as middle-aged men due in part to long latency period of lung cancer and high incidence
of prostate cancer in men over 60
Refer participants to NCI fact sheet "Cancer Facts for People over 50" for more information.

Activity 5: Evaluation of session
Methodology: Group discussion
Be sure and discuss the questions "What were the most useful aspects of this session?" and "How could the session have been improved?" Attempt to discover during the discussion if the participants retained/changed beliefs about aging.

Handout 3A

Normal changes associated with aging in men

- in general, aging results in a decreased ability to fight infections and disease
- heart: does not respond as well to stress due to thickening or hardening of arteries
- lungs: lung tissue becomes less elastic resulting in less oxygen exchange; decreased cough reflex
- urinary tract: enlargement of prostate obstructs urine flow
- gastrointestinal tract: less saliva in mouth, less hydrochloric acid in stomach lead to decreased bowel motility (food passes slower)
- eyes: decreased color sensitivity - changes in lens that affect depth perception
- ears: loss of nerve cells involved in hearing; 50% of older men have at least some hearing loss.
- nervous system: takes longer to process information, need more time to absorb new concepts (memory loss & senility not inevitable)
Session Three Agenda

1. Identify normal age changes

2. Discuss stereotypes of aging

3. Describe relationship of cancer to aging

4. Evaluation
Topic: Specific Cancers in the Older Adult Male

Session 4: Introduction. What is Colorectal Cancer?
Length: 60 minutes

Agenda:
1. Preview agenda, and make any announcements.
2. Identify specific cancers which affect men.
3. Explain risk factors for developing colorectal cancer.
4. Discuss signs and symptoms of colorectal cancer.
5. Identify diagnostic methods and treatments for colorectal cancer.
6. Evaluate the session.

Handouts:
Handout 4A: Risk Factors for Colorectal Cancer
Handout 4B: Colorectal Cancer - Diagnostic Tests

Pamphlets:
"Cancer Risk Factors" (ACS)
"Men Be Cancer Aware" (UTSCC)
"Taking Control" (ACS)
"Facts on Colorectal Cancer" (ACS)

Other materials needed for instruction:
Transparencies: Session agenda
Diagram Colon & Rectum
Activities with Methodologies:

Activity 1: Preview the agenda
Methodology: Transparency
Briefly list each item on the agenda for this session.

Activity 2: Identify specific cancers which affect older men.
Methodology: Lecturette
Pamphlet "Men be Cancer Aware" (UTSCC)

With each decade of life, the risk of cancer increases. For older adult males, the risk is greater than for women of the same age. The major cancers affecting older men (excluding skin cancers) are lung, prostate, and colorectal cancer. There is a secondary rise in incidence of testicular cancer among men over 60 although the highest incidence is in men 25-34 years of age.

Points to include:
- almost all prostate cancer occurs in men over 60
- in 1989, there will be an estimated 73,000 new cases of colorectal cancer in men (94% will be in men over 50); an estimated 103,000 new cases of prostate cancer (almost 100% in men over 50)
- in 1985, deaths from prostate, colorectal, and lung cancer in men over 55 totaled approximately 125,000 lives lost
Prevention and early detection could limit the effects of these diseases on older men and their families.

Activity 3: Explain risk factors for developing colorectal cancer.

Methodology: Group Discussion

Handout 4A

ACS Poster on Cancer Risk Factors

Transparency: Diagram of Colon & Rectum

(Have poster in accessible location in room. Be sure each participant has Handout 4A.)

Cancers of the colon and rectum are the third most frequent type of cancer in American men. They occur commonly in Western countries and are thought to be related to consumption of a high-fat, low-fiber diet.

Discuss the following risk factors:

- Diet high in fat and low in fiber
- History of ulcerative colitis
- Over 40 years of age
- Personal or family history of polyps in colon or rectum
- Family history (parents, grandparents, siblings) of colorectal cancer: risk two to three times greater if immediate family member as colon cancer
Activity 4: Discuss signs & symptoms of colorectal cancer.

Methodology: Lecturette

Pamphlet (ACS) "Facts on Colorectal Cancer"

Transparency - Diagram of Colon & Rectum

The signs and symptoms of colon or rectal cancer depend on where the tumor develops. Use diagram to illustrate where tumors occur.

Right colon: Unexplained anemia and GI bleeding
Weight loss
Abdominal pain (rare)

Left colon: Mucous in stools
Change in shape or consistency of stools
Obstructive symptoms: i.e., diarrhea, pain
Blood in stools (black)

Sigmoid colon: Obstruction
Blood in stools (red)

Rectum: Mucous diarrhea
Rectal pain
Straining on stool

Briefly discuss the value of high fiber, low-fat diet in preventing colorectal cancer and value of early detection
at limiting the effects of this disease. This will be discussed more fully in Session 6.

Activity 5: Identify diagnostic methods and treatments for colorectal cancer.

Methodology: Lecturette

Handout B: Colorectal Cancer - Diagnostic Tests

Refer participants to ACS, pamphlet "Facts on Colorectal Cancer" for written information on diagnostic tests. Colorectal can be detected in early, asymptomatic stage by use of the following diagnostic tests: digital rectal examination, stool blood test, and proctosigmoidoscopy. Use transparency to describe tests. Symptomatic cancer may require additional tests: barium enema, lab complete blood count (CBC), carcinoembryonic antigen (CEA), CT scans, or even surgery to determine the extent of disease.

Surgery is the most effective form of treatment for colorectal cancer. Depending on the extent of disease, a temporary or permanent colostomy may be required. Also, the lymph nodes may be removed to prevent metastases or spread of this disease.

Radiation does not play a major role in colon cancer, but can cure small rectal cancers. It is also used to treat metastatic colorectal cancers in the lung. Side effects
depend on the irradiated: skin reactions, nausea, or diarrhea occur most with radiation to lower abdomen.

Chemotherapy may be used alone or in combination with surgery or radiation but current drugs do not cure this type of cancer. Can reduce size of tumors for a period of time.

Five-year survival rates are 80-90% if colorectal cancer is diagnosed early, but the percentage of survivors drops to 5% if it goes undetected until its late stages.

Activity 6: Evaluation of session

Methodology: Group discussion

To elicit evaluative comments, ask the group, "What were the most useful aspects of this session?" and "How could the session have been improved?" It is important to remain receptive to constructive criticism.

Handout 4A

Risk Factors for Colorectal Cancer

Diet high in fat, low in fiber
History of ulcerative colitis
Being over age 40
Personal or family history of polyps in colon or rectum
Family history of colorectal cancer
Colorectal cancer: Diagnostic tests

Digital rectal examination - screening test which measures blood in stool
Guaiac test - screening test for blood in stool
Proctoscopy (Procto) - test to check for cancer in rectum
Sigmoidoscopy - Use of a flexible scope to examine the lower 25-30cm of bowel; can detect 2/3 of colorectal cancers
Colonoscopy - use of a flexible scope to examine almost 60 cm of the colon
Polypectomy - removal of polyps to prevent or detect cancer; done through flexible scope used for colonoscopy
CEA - carcinoembryonic antigen = antigen detected in the blood of patients with certain cancers, especially colorectal cancer
CBC - complete blood count = tells doctor if person is anemic
Session Four Agenda

1. Identify specific cancers which affect men

2. Explain risk factors for developing colorectal cancer

3. Discuss signs and symptoms of colorectal cancer

4. Identify diagnostic methods and treatments of colorectal cancer

5. Evaluation
Stomach
Cecum
Sigmoid colon
Small intestine
Rectum
Session 5: Prostate and Testicular Cancer in Older Men
Length: 60 minutes

Agenda:
1. Preview the session
2. Explain risk factors for prostate and testicular cancer
3. Describe signs and symptoms of prostate and testicular cancer
4. Identify diagnostic methods and treatments for prostate and testicular cancer
5. Evaluate the session

Handouts:
Handout 5A: Risk Factors for Prostate and Testicular Cancer
Handout 5B: Early Detection
Handout 5C: Prostate and Testicular Cancer Diagnostic Tests

Pamphlets:
For Men Only, Prostate Cancer and Testicular Cancer (ACS)
Facts on Testicular Cancer (ACS)
What You Need to Know About Cancer of the Prostate (NCI)

Other materials needed for instruction:
Transparencies: Agenda
Diagram - Male Genitourinary Tract

Activities with Methodologies:
Activity 1: Preview the session
Methodology: Transparency
Briefly list each item on the agenda for this session.

Activity 2: Explain risk factors for prostate and testicular cancer
Methodology: Introductory statement
Group discussion
Pamphlets on prostate/testicular cancer listed previously
Transparency: Male Genitourinary Tract

Cancers of the prostate and testes are malignant growths of the prostate gland or testicles. The prostate gland, located at the base of the penis, is just below the bladder. Normally, it is about one and one-half inches in diameter and three-quarters of an inch thick. In older men it tends to enlarge and may become cancerous; 14% of men over 50 have prostate cancer. The testes (male gonads) are paired glands in which sperm are produced; each testis is oval and located in its half of the scrotum. (Use transparency for clarification). Cancer of the testes is most common in young men, but shows a secondary rise in incidence in older men.

Use Handout 5A to discuss risk factors.

Activity 3: Describe signs and symptoms of prostate and testicular cancer.
Methodology: Lecturette

Cancer of the prostate may not have any symptoms in its early stages. If present, symptoms include: pain on urination, difficulty in starting stream, a feeling of urgency. Later signs include blood in urine, urine retained in bladder with dribbling. Prostate cancer may spread to the bones and the person may have pain that is mistaken for arthritis. Other areas of spread include direct invasion or extension in the pelvic area or by the lymph system to the lung.

Cancer of the testes is usually first detected as a slight enlargement and change in consistency of the testes. Otherwise, it is painless and without symptoms. Advanced testicular cancer may cause a sharp pain in the testicle involved. Up to 88% of testicular cancers are diagnosed after they spread - this lessens the chances of a cure and increases the side effects from treatment. If detected early, the most common kind of testicular cancer (seminoma) can be cured almost 100% of the time.

Cancer of testes may spread by direct invasion into surrounding tissue or by the lymph system into the lung.

Activity 4: Identify diagnostic methods and treatments for prostate and testicular cancers.

Methodologies: Lecture

Handout 5B
Utilize Handout 5B to explain diagnostic tests for prostate and testicular cancers. Refer participants to the appropriate pamphlets for written material on diagnostic tests.

Prostate cancer: not usually detected in its early stages. Small nodules are asymptomatic; however, a doctor can detect their presence on doing a rectal exam. The diagnosis is confirmed by a biopsy of the prostate gland which is examined under a microscope. Laboratory studies such as acid phosphatase (elevated levels may indicate the disease has spread) help diagnosis the extent of the disease. A new technique called prostatic ultrasound, accomplished by using a rectal probe, is being used experimentally to detect very small nodules.

Treatment of choice for prostate cancer is surgery and/or radiation. In its early stages, treatment for this disease is considered curative. Prostate cancer that has spread is sometimes treated by removal of testes to stop production of testosterone, a male hormone which seems to play a role in tumor growth. Chemotherapy has been used with advanced cancer of the prostate but is generally ineffective.

The prognosis for men with prostate cancer detected early and successfully treated is such that 15-year survival approaches actual life expectancy. This cancer, diagnosed
in late stages, usually is fatal in 1-2 years. Also, treatment in later stages results in more side effects such as impotence or urinary incontinence.

Testicular cancer can be detected early by using a simple self-examination technique or physical exam by a doctor. Surgical removal of the testicle (orchiectomy) is necessary for final diagnosis of a lump or nodule. Additional tests such as x-rays, CT scans, and blood hormone levels help determine if the disease has spread.

After surgery, the treatment is determined by the type of cancer involved and the extent of spread (metastasis). If there are lymph nodes involved, radiation therapy may be done. If tests show that the cancer has spread to other areas of the body systemic therapy - chemotherapy - is used. This can still be treatment that is curative. The challenge for the doctor is to combine the correct therapies to effectively treat the cancer and still minimize side effects.

The prognosis for men with testicular cancer is excellent if the cancer is detected early. The disease is usually limited to one testicle and the man is not sterile. Today, an artificial testicle can be inserted which has the look and feel of a normal testicle.

Note: Men may have concerns related to sexuality that they would need to discuss with their doctor.
Activity 5: Evaluate the session

Methodology: Group discussion

Being open to constructive criticism, ask the following questions: "What aspects of this session were most valuable? How could it have been improved?"

Handout 5A

Risk Factors for Prostate and Testicular Cancer

For prostate cancer:
Age over 50
American male
Exposure to cadmium (a toxic metallic element used to make batteries)
Black male (have highest rate in world)
Family history of any type of cancer
Diet high in fat (under investigation)

For testicular cancer:
White male
Family history of testicular cancer
History of undescended testicle of birth, especially if not corrected
Testicular atrophy from viral infections such as mumps
Early Detection of Prostate and Testicular Cancer

Prostate cancer:
Screening for early detection achieved through a rectal exam:
  a. every year for men between 40-50 years old
  b. every six months for men over 50 years old

Testicular cancer:
Monthly testicular self-examination
Yearly manual examination by doctor
Prevention by correction of undescended testicles before age six

Prostatic and Testicular Cancer - Diagnostic Tests

For prostate cancer:
  Digital rectal exam by doctor
  Needle biopsy - transrectal
  Tissue diagnosis after specimen removed for benign prostatic hypertrophy (swelling of prostate gland)
  Lab studies: acid phosphatase (enzyme produced by prostate)
  alkaline phosphatase (enzyme present when cancer spreads to bone)
Prostatic ultrasound: use of sound waves to detect a nodule in prostate, done by inserting rectal probe

For testicular cancer:

Testicular self-examination
Physical exam by doctor
X-rays: chest
   lymphangiogram (lymph gland x-rays)
Orchiectomy (surgical removal of affected testicle)
Lab studies - hormone assay
Session Five Agenda

1. Explain the risk factors for prostate and testicular cancer

2. Describe signs and symptoms of prostate and testicular cancer

3. Identify diagnostic methods and treatments for prostate and testicular cancer

4. Evaluation
MALE GENITOURINARY TRACT

Bladder

Prostate

Penis

Spermatic cord

Testis

Urethra

Scrotum
Topic: Risk Assessment and Prevention

Session 6: Risk assessment, screening and prevention
Length: 60 minutes

Agenda:
1. Preview the agenda, make any announcements.
2. Identify personal risk factors.
3. Discuss prevention and cancer-related check-ups.
4. Identify self-care practices for prevention and early detection.
5. Evaluate the session and course.

Handouts:

Pamphlets: Cancer Risk Factors (ACS)
Taking Control (ACS)
Nutrition, Common Sense and Cancer (ACS)
Diet, Nutrition & Cancer Prevention: The Good News (NCI)

Other materials needed for instruction:

Transparencies: Agenda
Cancer Risk Factors
Poster on Cancer Risk Factors

Activities with Methodologies

Activity 1: Preview the agenda and make any announcements.

Methodology: Transparency
List briefly each item on the agenda. Make any necessary announcements.

Activity 2: Identify Personal Risk Factors

Methodology: Lecturette
Group Discussion

Transparency on Cancer Risk Factors

Risk assessment is an evaluation of an individual's health status or potential for developing cancer. Risks relate — directly or indirectly — to lifestyle, environmental and hereditary factors, as well as previous history of illness. Important points follow.

- Risk does not assure disease — only indicates probability or potential of developing disease. Knowledge of risk factors alerts individuals to factors which can be altered to reduce or eliminate potential for disease. (It is necessary to state the importance of cancer awareness without causing unnecessary worry or concern.)

- Multiple cancer occurrences increase the risk (either in individual or family).

- Persons with known risk factors need follow-up as a precaution.

Utilize ACS poster on Cancer Risk Factors to discuss older men's risk of developing cancer. During this session, you may want to make pamphlets on other cancers available (i.e., pamphlets on skin and lung cancer).
Activity 3: Discuss prevention

Methodology: Lecture

Disease prevention, in a broad sense, consists of all measures that limit the progression of a disease at any point in its course. (Cancer awareness programs utilize principles of primary and secondary prevention.)

Primary prevention focuses on preventing cancer from developing, by either (a) promoting people's overall health to make them less susceptible to disease or (b) seeking to eliminate environmental exposures.

Secondary prevention is not true prevention, but attempts to detect cancer early in an effort to cure or limit the effects of the disease. It is preventive in the sense of preventing complications, disability, or death.

The National Cancer Institute's goal is to reduce deaths from cancer by 50% by the year 2000. As no vaccine is available, prevention and early detection of cancer will be necessary to achieve this goal.

Note: Older men need to know about preventive measures because of their higher risk for cancer. Cancer can and does shorten many men's lifespan unnecessarily. Emphasize that a 65 year old man has over 14 years of life expectancy if illness does not occur. Familiarity with one's body, knowledge of personal risk, and understanding of what to expect/ask for from the doctor can prevent or limit the effect of many cancers.

Remember: The earlier the diagnosis,

- the less chance of damage to surrounding tissue
- the less chance of tumor spread or metastasis
- the better the chance that the primary tumor can be removed completely by surgery or cured with radiation/chemotherapy.

The American Cancer Society developed guidelines for cancer-related check-ups which are revised as new information becomes available. Men may want to discuss these check-ups further with their doctors.

**Older men should:**

- perform testicular self-examination monthly

**Older men should have check-ups including:**

- stool guaiac slide test (yearly)
- digital rectal exam (yearly)
- proctosigmoidoscopy (yearly until 2 negative exams, then every 3 to 5 years)

**Activity 4:** Identify self-care practices for prevention and early detection.

**Methodology:** Lecturette

**Pamphlets:** Taking Control (ACS)
Nutrition, Common Sense and Cancer (ACS)
Diet, Nutrition & Cancer Prevention: The Good News (NCI)
Cancer risk associated with heredity cannot be changed.

However, many times individuals can reduce their risk of cancer by changing their lifestyle or altering their environment. This does not always require intervention by a doctor or other health professional. Certain self-care practices for screening and prevention can reduce cancer risks for older men. These self-care practices include:

1. Testicular self-examination periodically
2. Good personal hygiene
3. Skin inspection (with physician follow-up for suspicious spots)
4. Stopping smoking
5. Weight control
6. Dietary changes to limit fats and increase fiber

Note: Encourage participants to read pamphlets on nutrition. You may want to discuss diet further. An excellent reference is Chapter 9 in the *Core Curriculum for Oncology Nursing* by Ziegfeld (1987). It is in outline form and does not require a science background to understand.

In addition to the self-care practices, knowledge of the American Cancer Society's seven warning signals will allow an individual to get help early. Symptoms vary depending on the tumor's location. Those concerning older men include:

- a change in bowel habits - cancer of colon or rectum
- bleeding - rectal cancer
- indigestion - stomach cancer
- difficulty swallowing - esophageal or larynx cancer
- coughing, hoarseness - lung cancer

If a warning signal is present, see your doctor!

Activity 5: Evaluate the session and course.

Methodology: Course evaluation form.

Explain the importance of the participants honest and thorough evaluation of the course. Pass out evaluation forms and request participants complete them before leaving.
Transparency 10

Session Six Agenda

1. Identify personal risk factors

2. Discuss prevention and cancer-related check-ups

3. Identify self-care practices for prevention and early detection

4. Evaluate session and the course
Cancer Risk Factors

Age: Over age 50

Alcohol: Excessive consumption contributes to esophageal cancer

Asbestos: 5-fold increased risk of lung cancer if occupationally exposed and smoke cigarettes

Smoking: 10-fold increased risk of lung cancer
Cancer Risk Factors

Family History: Increased risk if parents, grandparents and/or siblings have cancer

Occupation: Exposure to industrial agents increases cancer risk

Sun: Too much exposure increases risk of cancer

Diet: High fat, low fiber diet
Bibliography

References on Cancer Statistics


References on Age-related Concerns


References on Ethnic/Cultural Influences


References on Curriculum Development/Program Planning


References on Cancer and its Treatments

American Cancer Society. (1975). The Nature of Cancer. (Senior high school teaching kit available on free loan from local American Cancer Society).


CHAPTER 4
DISCUSSION

As noted previously, older men are at higher risk of developing certain cancers. At age 25, the risk of developing cancer is one in 700 and by age 65, the risk increases to one in 14. Almost all of the cases of prostate cancer are in men over age 50 and a significant proportion of lung and colorectal cancer cases occur in men over age 50 as well. It must be remembered that cancer does affect the lifespan of older men, as well as the quality of the life they live.

Despite knowledge of older men's risk for cancer, few programs have been developed that focus on the needs of this group. This inattention results from a lack of awareness on the part of elders and health professionals of the increased risk for cancer in older men and a belief in the stereotypes of old age. Contrary to popular belief, older adults are interested in preventive health care. Learning abilities change, but do not disappear with age.

This thesis focused on creating a curriculum guide that incorporates what is currently known about aging into a cancer awareness program designed to meet the specific learning needs of older men. The guide contains information
on aging and cancer, as well as preventive health measures. It is presented as a series of sessions to be used by community wellness programs, senior centers or other groups providing services to older adult men. Each session includes content information, activities with methodologies, learning objectives, and references.

The curriculum guide was developed as a comprehensive resource for a health educator. Outside reading and materials were kept to a minimum, but may be necessary depending upon the experience of the instructor. An agency or group planning to implement this program may want to consider the following suggestions:

1. Staff development classes or meetings may be useful in heightening awareness among the staff about the subject -- cancer and aging -- as well as revealing their attitudes about older people. It is very important that an instructor respect older adults and believe in their need for cancer prevention measures.

2. Any program must serve the needs of the community it is planned for. Previewing the program for seniors groups may increase support of the program.

3. No one program can provide all needed information. Networking with groups providing related programs (i.e., smoking cessation, nutrition) will diminish
the chances of duplication of services and increase the effectiveness of all programs.

4. After presenting a session, the use of a flipchart is recommended instead of transparencies. Flipcharts interfere less with the participants view of the instructor and there is no need to darken the room.
References


