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Understanding Seniors Medication-Taking Practices Through Empowerment Education

by

Jennifer Lee Hystad 

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of Master of Science

Centre for Health Promotion Studies

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Abstract

The objectives of this study were to apply the 'dialogue phase' of an empowerment education process with seniors and their medications to demonstrate an empowerment education approach and to identify strategies that may improve seniors medication-taking practices. Six criteria of the empowerment education process were identified in the literature and used to demonstrate the application of an empowerment education process. Data analyses indicated that this process met the criteria of listening, dialoguing and creating strategies for action but did not meet the criteria of being participatory, empowering or being reflexive. Additionally, a video, or 'code', was used in conjunction with a five-stage questioning method so that the seniors could identify the social, psychological, economic, physical, cultural and political influences on seniors medication-taking practices. A determinants of health framework was used to systematize these interrelated influences to demonstrate the relationship between factors as well as to demonstrate the importance of intersectoral collaboration. This process was especially effective in identifying relationships between pharmaceutical policies and the varying influences on medication-taking. These influences were then used by the seniors to create health promoting strategies within the areas of developing personal skills, strengthening community action and building healthy public policy.

Dedication

This thesis is dedicated to my grandparents, Leo and Ethel Rutledge. It is their enthusiasm for life and commitment to family and community that has inspired me to explore the supports and barriers to healthy aging.

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I would like to share my deepest appreciation to my husband, **Todd Hystad**, who has supported and encouraged me throughout my graduate studies. His patience and love has been remarkable. I must also thank my **mom, dad** and brother**, Pete**, for encouraging me to further my education and supporting my studies.

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Chapter 1 - Introduction

The medication-taking process can be complex, particularly among the older population. The medication-taking process encompasses the many decision points that patients encounter such as identifying initial symptoms and making decisions regarding continuation of treatment. In the older population, physiological/functional changes in the body, psychological, social, cultural and economic factors can influence the medication-taking process. Educational strategies targeted toward improving medication management have typically involved didactic, individualized counseling between health care professionals and patients. These approaches are limited, as they typically address only the physiological/functional influences on medication management. The focus of this study was the 'dialogue phase' of an empowerment education process that can increase the breadth of factors addressed in an educational strategy by incorporating seniors' (individuals aged 65 years and older) perspectives on medication management. This was accomplished by having seniors analyze root causes of medication-associated problems and develop action plans to address these problems. As a result, this educational strategy addresses the physiological/functional influences as well as the psychological, social, cultural and economic influences on the medication-taking process.

An effective educational strategy for seniors is important as a large proportion of Canadian seniors use multiple medications. The 1994/95 National Population Health Survey (NPHS) examined the prevalence of medication use in Canadian seniors (65 and older). The survey included ten provinces and a total of 2,412 people over the age of 65. The six most common medications taken by Canadian seniors were pain relievers, blood pressure medications, heart medications, diuretics, stomach remedies and laxatives. Ten

percent of seniors aged 65-74 and 13% of seniors 75 years and older took five or more medications two days before their interviews (Millar, 1998). Further, 20% of seniors who used multiple medications were also daily drinkers: alcohol has the potential to interact with at least half of the commonly prescribed medications (Millar, 1998). In addition, high-risk prescriptions and questionable prescribing contribute to medication-taking problems in seniors. (Tamblyn et al., 1994). It is estimated that 5% to 23% of hospital admissions in Canada are due to drug-related illness (Tamblyn & Perreault, 1995).

Compounding the problems that can occur as a result of prescription medications is the use of nonprescription or over-the-counter (OTC) medications as well as herbal medications. It is suggested that the risk of adverse reactions with OTC drugs is higher in older people than younger people as a result of their often-complex medication regimes (Lamy, 1989). OTC medications can cause addictive effects as well as interact with prescription medications (Lamy, 1989). In addition, the use of OTC drugs is prevalent among Canadian seniors. Chaiton et al. (1976) examined the pattern and extent of medical use of drugs in a survey of a rural Ontario community. The study reported that as many as 60% of this population used OTC drugs in the 48 hours previous to participating in the survey.

There are internal variables that influence the medication-taking process in older adults such as physiological, functional and psychological factors that can increase the complexity of procedure. For example, physiological changes including distribution, metabolism, and excretion of drugs seem most adversely affected by the aging process (Lamy, 1990). Functional changes associated with aging can also impact medication-

taking behavior such as difficulty in reading and interpreting directions, opening lids and distinguishing pills by color (Meyer & Schuna, 1989). Finally, psychological variables such as patient expectations (Cockburn & Pit, 1997), patient perceptions of medication effectiveness (Tamblyn & Perreault, 1995), self-perceived health status (Bergob, 1996) and stress (Bergob, 1996) can influence the medication process.

There are also a variety of external, social factors that can influence the decisions made during the medication-taking process. Statistics Canada conducted the National Alcohol and Other Drugs Survey (NADS) in March of 1989. Data were collected from 12,000 non-institutionalized Canadians aged 15 years and older via telephone survey. Results from the survey indicate social conditions such as social support influence the medication-taking process. Seniors without helpful family and friends were more likely to have stressful lives and to be multiple-drug users than those with supportive family and friends (Bergob, 1996). Health Canada (1995) has reported that other social conditions such as income, education and marital status affect medication use among seniors. In general, as income increases, the use of most medications tends to decrease. Although it is believed that education level influences medication use, results in this area are inconsistent. Some types of prescription drugs are used, in increasing order, by those who are single, married, divorced and widowed.

Socioeconomic status (SES) of patients has been associated with the decision of physicians to prescribe medications with patients of high SES being less likely to receive a prescription compared with those of low SES (Scott et al., 1996). An American study investigated the actions of patients who were taking more medications than were covered by insurance (Chubon et al., 1994). Interviews with 19 participants showed that patients

would pay the remaining bill out-of-pocket, borrow money, extend credit with the pharmacy, get samples from the physician, not get prescription filled or refilled, take doses less frequently or in low doses, and infrequently take someone else's medication.

Social and economic factors may be closely linked. In Alberta, all seniors receive Alberta Blue Cross (ABC), *Coverage for Seniors* beginning the month after an individual turns 65. With respect to prescription drugs, ABC covers 70% of the cost of prescription drugs and the client pays the remaining 30% up to a maximum of $25.00 for each prescription. Coverage for seniors includes prescriptions listed on the Alberta Health Drug Benefit List (Alberta Community Development, 1999). This policy can influence the medication-taking behavior of seniors in Alberta by providing better access to needed medications. Unfortunately, the maximum billing of $25.00 per prescription can be a burden for some seniors. In addition, new medications may not be on the Drug Benefit List and may have extremely high costs.

Evidence supports that a complex array of factors can influence seniors' medication-taking process. These factors range from the internal, physiological/functional and psychological changes in the body to the external influences such as social, cultural and economic conditions. Many of the educational strategies that exist today to improve medication-taking are, however, based on an individual approach primarily addressing the functional and knowledge influences on the medication-taking process. For example, a review study reported that the most frequent educational intervention for elderly populations was one-to-one education using written information, with most studies assessing drug management (Maddigan et al., 1999).

A broader health education approach encompassing a community-level intervention using a socioenvironmental definition of health provides a more comprehensive analysis of the factors influencing medication-taking. The two primary approaches for health education include the lifestyle approach and the socioenvironmental approach (Minkler, 1989). Although both types of interventions are effective, the socioenvironmental approach is based on broad determinants of health and focuses on control of situations that influence personal health.

The goal of health education employing a socioenvironmental approach is to create social and economic conditions that support health. Community-level empowerment education strategies assume a socioenvironmental approach in that they seek to increase 'the ability of people to gain understanding of personal, social, economic and political forces in order to take action to improve their life situation' (Wallerstein, 1992). An empowerment education approach engages people through group dialogue to identify their problems, critically assess the psychological, social, cultural and economic roots of their problems and develop action strategies (Wallerstein, 1992). Thus, this process may be useful in examining the medication-taking process, as past work has generally been linked to a behavioral approach.

The specific process used in empowerment education stems from the work of Brazilian educator Paulo Freire (Freire, 1970). For Freire, the purpose of education should be human liberation, where people are subjects of their own learning (Wallerstein, 1992). To achieve this, Freire proposed a listening-dialogue-action approach to health education. The listening phase is a continuing process, which reveals issues of emotional and social significance to the participants. These issues are then used as the basis for the

health curriculum (Wallerstein, 1992). The second step, the dialogue phase, involves all participants and the health educator participating as equals to interpret the community's problems together. The purpose is for 'critical thinking' to be used to analyze the root causes of the situation in the psychological, social, cultural and economic context of individuals' lives (Wallerstein, 1992). The dialogue phase concludes with the development of action plans, which are then carried out in the final action phase. This process is not linear, but reflexive, oscillating among the three phases. Often, listening continues throughout the entire process (Wallerstein & Bernstein, 1988).

Statement of Problem and Purpose

Conventional education strategies targeted toward improving seniors' medication-taking behavior have typically involved didactic, individualized counseling of seniors by health care professionals. These strategies, designed by professionals, primarily address the functional influences and knowledge level associated with medication management and often overlook other significant influences such as social or economic contexts. The 'dialogue phase' of an empowerment education approach incorporates seniors' perspectives of medication management by having the seniors analyze root causes of medication-associated problems and develop action plans to address these problems. By doing so, seniors not only become empowered, but the process results in effective health improving strategies.

Thus, the overall aim of this study was to explore new approaches to improving medication use among seniors. The specific objectives of the study were to apply the 'dialogue phase' of an empowerment education process to seniors and their medication-taking in order to:

1. Demonstrate an Empowerment education approach, and
2. Identify strategies to improve the medication-taking process of seniors.

Significance

With the many, often complex interactions of factors that influence seniors' medication-taking behavior, such as social, psychological and political influences, it is important that strategies be developed that educate seniors on ways to improve their health. Further, the economic burden on health care systems, insurance companies and the seniors themselves could be decreased with effective health education that addresses the broad underlying factors. The goal of this study was to demonstrate to both health care professionals and seniors that the ultimate consumers, seniors, do understand the root influences on their medication-taking decisions and are capable of planning positive actions. The process may have empowered seniors individually as they analyzed the root causes of problems and gained the understanding that they are capable of designing strategies to help themselves. The process also facilitated awareness among the participants of the broad factors that can influence the medication-taking process. Further, the empowerment education process gave a voice to seniors by allowing them to share their concerns and ideas about the factors influencing their health. By involving seniors in the planning process, the action strategies designed were realistic and effective.

This project may assist in the development of cost-effective health education programs. The literature indicated that a community level, empowerment education process had never been employed in a pharmaceutical project to improve medication-taking practices. This study provided pharmacists and other health care professionals with a new approach to health education.

Definition of Terms

Community approaches that are typically adopted in health promotion practices are described by Hawe (1994). The first is community as setting, with aspects of the environment supporting individual behavior change. The second approach is community as an 'ecosystem with capacity to work toward solutions to its own community identified problems'. This project employs both of these definitions to some degree.

Consciousness raising is a mutually educative encounter between researcher and researched. It is recognition of social, political, economic and personal constraints of freedom and provides the forum to challenge these constraints. It involves enlightenment, empowerment and emancipation (Henderson, 1995).

Empowerment is defined as a multi-level construct that involves people assuming control over their lives in the context of their social and political environment (Wallerstein, 1992). At an individual level, empowerment involves individual self-efficacy and motivations to exert control; community-level empowerment involves communities having equity and capacity to solve problems, identify their problems and solutions and increase participation in community activities (Wallerstein, 1992). Community empowerment education strategies therefore concern 'the ability of people to gain understanding of personal, social, economic and political forces in order to take action to improve their life situation' (Wallerstein, 1992).

Empowerment education engages people through group dialogue to identify their problems, to critically assess the psychological, social, cultural and economic roots of their problems and develop action strategies (Wallerstein, 1992).

A **medication-taking process** includes the many decision points that patients face in obtaining and using medication. The process begins when patients perceive there is a health care need (i.e. symptoms) and interpret this need. The process continues as patients choose to pursue a treatment, decide on the form of treatment and consider alterations in the treatment schedule. The process either restarts or terminates upon completion of the treatment as patients decide to follow-up with a health care professional or to end the process.

Seniors are individuals 65 years of age and older.

Chapter 2 – Literature Review

Introduction

The review of the literature will describe the extent of medication use and the medication-taking practices of seniors in Canada as well as in the United States. A comprehensive discussion of the vast array of factors that influence the medication-taking process will provide the justification for a health education program that may improve current practices. Differing approaches to health and health education will be discussed and examples provided for cases relating to seniors and medications. Empowerment education will then be presented as a preferred intervention for improving medication-taking practices. Criteria indicative of an effective empowerment education approach will be used to critique applications of this method.

Medication use among Seniors

The National Population Health Survey is a longitudinal survey designed to collect information on the health of Canadians over time. A supplement to the survey involved 13,400 respondents from the 10 provinces who were asked about their specific use of medications in the month prior to the survey. A limitation of this methodology is the reliance on self-reports, which is dependent on accurate recall and truthful reporting. To provide a rich description of the medication use by Canadian seniors, the results from the supplement are presented below in conjunction with additional studies that indicate the prevalence and characteristics of seniors medication use.

Medication use plays a significant role in the lives of many Canadian seniors. A Saskatchewan study analyzed data from the provincial prescription drug plan to measure

the prevalence of drug use in that province in 1989. The study reported 66% of the study population received at least one prescription and the mean number of prescriptions per patient was 8.2 with a mean cost of $13.95 per prescription.

The 1994/1995 National Population Health Survey reported that 10% of Canadians aged 65-74 years and 13% of those aged 75 and older were multiple medication users, having taken five or more drugs during the two days before their interview (Millar, 1998). The survey results further indicated that medication use generally increased with increasing age, with the gradient being more pronounced in men than women (Millar, 1998). The six most common drugs taken by Canadians 65 years and older were pain relievers, blood pressure medications, heart medications, diuretics, stomach remedies, and laxatives (Millar, 1998). Overall, senior women (65 years and older) used more medications than senior men except for heart and diabetes medications (Millar, 1998). The survey reported that 20% of seniors who are multiple medication users were also daily drinkers; alcohol can interact negatively with medications (Millar, 1998).

A Toronto study investigated the pattern of drug prescribing by physicians for a sample of 47 individuals aged 65 years and older (Bloom et al., 1993). The results showed many of the seniors had less than optimal drug regimens. Sixty-four percent of this study sample was female and the average age was 78 years. Assessments of medications prescribed were determined through standardized chart assessment in conjunction with home visits to observe all medication bottles. Overall, 21of the patients assessed (45%) had one or more examples of 'potentially undesirable prescribing' based on the chart abstraction, and 22 (47%) had at least one 'potentially undesirable drug use' based on the home visit. These two categories were based on four criteria: more than one

drug from the same family; combinations of agents known to have adverse interactions; agents potentially inappropriate for long-term use in elderly patients' and outdated agents no longer preferred for certain conditions.

A study of elderly patients in Quebec revealed a high prevalence of questionable prescribing by physicians. The sample included 63,268 non-institutionalized elderly Medicare registrants who had visited a physician once in 1990. This retrospective study analyzed all prescription and billing records for the period January 1 to December 31, 1990. The study revealed 52.6% of patients experienced at least one high-risk prescription and 45.6% received one questionable prescribing including excessive duration and contraindicated drugs (Tamblyn et al., 1994).

The 1994/1995 National Population Health Survey also reported on the medication-taking practices of Canadian seniors. Over 90% of the seniors aged 65 and older reported always visiting the same doctor and 90% reported always visiting the same pharmacist (Millar, 1998). Of people aged 65-74 years, 21% reported taking a list of medications to their physician while 29% of those 75 years and older reported doing so (Millar, 1998). Fewer individuals reported taking a list to their pharmacist; only 15% in the 65-74 age range and 20% the 75 years and older age range (Millar, 1998). Of the individuals who had been prescribed a medication, 93% stated that the physician explained what the medication was for. Interestingly, there was a decline in seniors reports of receiving other drug-related information (how much to take, when to take the medication, etc.) from their physician with advancing age (Millar, 1998). This pattern was also found with pharmacists.

The above description of Canadian seniors' medication-taking practices is similar to results of studies of the American population. Using data from the National Ambulatory Medical Care Survey, Asparsu & Flinginger (1997) examined potentially inappropriate medication prescribing for the elderly by office-based physicians by way of a computer analysis of public-use data files. An estimated 168 million office visits were made by the elderly, representing an annual rate of 5.5 visits per person. Patients received a prescription in 66% of those visits and inappropriate prescriptions were given at 5% of the visits. Inappropriateness was assessed using criteria developed by a panel of national experts in geriatric medicine and geriatric pharmacology.

Compounding the problems that can occur as a result of prescription medications is the use of nonprescription or over-the-counter (OTC) medications. It is suggested that the risk of adverse reactions with OTC drugs is higher in older people than in younger people as a result of their often-complex medication regimes (Lamy, 1989). OTC medications can cause addictive effects as well as interact with prescription medications (Lamy, 1989). Chaiton et al. (1976) examined the pattern and extent of medical use of drugs in a survey of a rural Ontario community. The study reported that as many as 60% of this population used OTC drugs in the 48 hours previous to taking the survey.

A patient-centered model of the medication-use process as described by Tindall et al. (1994) presents the many decision points that individuals face in obtaining and using medication. For example, the process begins when individuals perceive there is a health care need (i.e. symptoms) and interpret this need. Once they interpret the need, they must decide to take action in the form of self-treatment, treatment from a non-medical provider, treatment from a health care provider or to take no action at all. If patients

decide to use a health care provider, they must describe their interpretation of the symptoms to the provider. The health care provider then diagnoses the problem and makes a recommendation to patients at which point patients may or may not accept the recommendation for treatment. If patients accept the recommendation, they can either attempt to follow the prescribed regimen or intentionally alter the regimen. Patients then evaluate the treatment, monitor their response to the medication and evaluate its effectiveness. Upon completion of the medication prescribed, patients must decide whether or not to contact the health care professional. If patients contact the professional, they may or may not communicate their perceptions of the treatment and the professional must make a decision to continue or alter treatment. This process reveals the many decision points patients encounter in the medication-taking process. These decision points are influenced by a number of factors such as physiological/functional, psychological, social, cultural and political variables.

Factors Influencing the Medication-Taking Process

There are many variables that influence the medication-taking process in older adults. Physiologic changes that occur in people as they age can alter the effects of medications. It has been reported that although absorption does not change, the distribution, metabolism, and excretion of drugs seem most adversely affected by the aging process (Lamy, 1990). This can be attributed to changes in body composition such as a decrease in total body water, lean body mass, and/or an increase in body fat (Cohen, 1986). Thus, dosing changes are often made in the elderly to accommodate the physiological changes. Health professionals, however, generally make these types of changes to drug regimes.

Functional changes associated with aging can also impact medication-taking behavior. A descriptive study reported that of the geriatric study population, 26% were unable to read prescription labels, 10% were unable to interpret directions, 11% were unable to open or close a child-resistant cap, 7% were unable to open or close a regular or non-child-resistant cap, and 41% were unable to distinguish pills by color (Meyer & Schuna, 1989). These issues often result from changes in cognitive health status and fine motor skills.

Psychological variables such as patient expectations, patient perceptions, self-perceived health status and stress can influence the medication-taking process. In a questionnaire study of 22 non-randomly selected practitioners and 336 of their patients, it was found that patients who expected medications from their physicians were nearly three times as likely to receive medications (Cockburn & Pit, 1997). When the physician thought the patient expected medication, the patient was ten times more likely to receive it (Cockburn & Pit, 1997). In addition, Tamblyn & Perreault (1995) reported that 80% of compliance problems were due to the patient's perception that the drug was unnecessary or produced undesirable side effects and that greater compliance was associated with a satisfactory physician-patient relationship.

Seniors who perceived their health as very good or excellent (20% for women and 14% for men) were less likely than those who perceived their health as fair or poor (37% of women and 30% of men) to be multiple drug users (Bergob, 1996). In fact, 32% of senior women who felt their lives were fairly or very stressful reported using three or more drugs compared with 25% of women who reported little or no stress in their lives (Bergob, 1996). The findings were similar in men, with 31% of high stress men using

three or more medications compared with only 14% of low stress men (Bergob, 1996). Higher psychological stress has also been associated with noncompliance in taking prescribed medication (Coons et al., 1994).

There are also a variety of social factors that can influence the decisions individuals make in the medication-taking process including social support, income, education marital status and socioeconomic status. Statistics Canada conducted the National Alcohol and Other Drugs Survey (NADS) in March of 1989. Data were collected from 12,000 non-institutionalized Canadians aged 15 years and older via telephone survey. Results from the survey indicate social conditions such as social support influenced the medication-taking process. Seniors without helpful family and friends were more likely to have stressful lives and to be multiple-drug users than those with supportive family and friends (Bergob, 1996). As income increased, the use of most medications tended to decrease. Although it is believed that education level influences medication use, results in this area are inconsistent. Some types of prescription drugs were used, in increasing order, by those who are single, married, divorced and widowed (Health Canada, 1995). Socioeconomic status (SES) of patients has also been associated with the decision of physicians to prescribe medications, with patients of high SES being less likely to receive a prescription compared with those of low SES (Scott et al., 1996). Interestingly, noncompliance with prescribed medications has been significantly associated with higher socioeconomic status (Coons et al., 1994). A qualitative study investigated the actions of patients who were taking more medications than were covered by insurance (Chubon et al., 1994). The sample consisted of 19 individuals, 17 female and 2 male, with a mean age of 68.7 years. The interview data was analyzed using Ethnograph to determine

common themes. The interviews uncovered that patients paid the remaining bill out-of-pocket, borrowed money, extended credit with the pharmacy, received samples from the physician, did not get sample filled or refilled, took doses less frequently or in low doses, and infrequently took someone else's medication.

Although cultural influences can play an important role in the decisions of many individuals, a literature search of 'Medline', 'EMBASE' and 'CINAHL' revealed little information on cultural influences on medication management. In one study the use of home remedies, a component of medication management, was predicted by ethnicity, poverty status, education, severity, benefits and costs (Brown & Segal, 1996). Another study identified the cultural demands to be productive and job/household responsibilities as cultural influences that increased medication-use by helping people stay productive (Vuckovic & Nichter, 1997). Further, this study reported that impatience, coupled with technology has lead the public to count on survival and avoidance of illness (Vuckovic & Nichter, 1997).

Political issues may also influence the medication-taking process by inflating the costs of some prescriptions and ultimately limiting access to needed medications. For example, Lexchin (1990) contends that close ties between the Canadian Health Protection Branch and Canada's Research-Based Pharmaceutical Companies, Rx&D, formerly the Pharmaceutical Manufacturers Association of Canada (PMAC), has lead to deficiencies in the quality control of new medications as well as to inadequate standards for pharmaceutical promotion. In addition, Lexchin (1995) suggests that the way in which Canadian pharmaceutical policy is formulated allows expensive drugs of marginal utility into the Canadian market.

The introduction of Bill C-22 in 1987 allowed drug companies to exempt those drugs introduced after 1986 from generic drug competition for 7-10 years (Lexchin, 1993). In exchange, Rx&D promised additional spending on research and development as well as increased employment. However, this lack of competition among generic drug companies in the Canadian market has increased the overall cost of drugs (Lexchin, 1993). For example, in 1979 the average cost of a prescription for single-source drugs in Ontario was $5.66 as compared with $3.07 for multiple-source drugs. In 1988, the costs were $19.37 for single-source drugs and $5.16 for multiple-source drugs. Further, in 1979 single-source drugs accounted for approximately 45% of drug costs, whereas in 1988 they accounted for almost 70% (Lexchin, 1993). The study did not comment if there were adjustments made for inflation.

Canadian policies also determine who is covered by drug insurance, and thus who has increased assistance in managing the impact of the costs of drugs. In Canada, prescription drug insurance is available through public sources including the provincial governments or private plans such as those offered through employment or private insurance companies. Most provinces offer benefits to seniors, people receiving Social Assistance and those in lower income groups. The 1994/1995 National Population Health Survey reported just over half of the population over the age of 65 years had some coverage for prescription medications (Millar, 1999). Prescription drug insurance was also directly associated with the number of chronic conditions a person had as the number of chronic illnesses increased so did the need for drugs (Millar, 1999). These estimates were age-adjusted and therefore were not attributable to age differences between groups.

In Alberta, a key policy-related influence on the medication-taking process is the coverage provided by the Government for all seniors. In Alberta, all seniors receive 'Alberta Blue Cross (ABC), *Coverage for Seniors*' beginning one month after an individual turns 65. Under this program, the Alberta government pays the cost of premiums for all Alberta Seniors, their spouses and eligible dependents. Each individual can receive a maximum of $25,000 in benefits each year. With respect to prescription drugs, ABC covers 70% of the cost of prescription drugs and the client pays the extra 30% up to a maximum of $25.00 per prescription. Coverage for seniors only covers prescriptions listed on the Alberta Health Drug Benefit List (Alberta Community Development, 1999). This policy can influence the medication-taking behavior of seniors in Alberta by providing better access to needed medications in terms of economic influences. Unfortunately, the maximum billing of $25.00 per prescription can be a burden for some seniors. Moreover, newly approved medications may not be on the Drug Benefit List and may have extremely high costs, thereby effectively reducing access to these pharmaceuticals.

The many influences on the medication-taking process may result in negative health outcomes for seniors. A study by Grymonpre et al. (1988) surveyed drug-related admissions of patients aged 50 years and older admitted to a health centre in Winnipeg. Of the 863 eligible admissions, 19% exhibited at least one drug-related adverse patient event (DRAPE) at the time of hospitalization. Further, one or more adverse drug reactions were found in 12% of the 718 admissions involving prescription drugs. A DRAPE was defined as any undesired effect associated with drug therapy. Clinical

manifestations of the DRAPEs most commonly involved the cardiovascular and central nervous systems, with congestive hear failure and confusion reported most often.

Medications play a large part in the lives of Canadian seniors. The vast array of factors that influence the medication-taking process and the fact that medications are not optimally used justify a health education intervention. To be most effective, the intervention must incorporate the seniors' perspective as well as address the physiological, functional, psychological, social, cultural and political influences.

Health Education

Over time, two approaches to health education have emerged based on the changing views on health and the causes of health. Behavioral approaches to health education target lifestyle and behavior changes, such as increasing exercise and stopping smoking, whereas socioenvironmental approaches concern control over health and is based on the broad determinants of health. Each of these two approaches may be applied at an individual or community level. Medication counseling typically has used a behavioral approach targeted at individual behavior change, although there are examples of community-level, behavioral strategies. There were no examples found of medication-related health education strategies that employ a socioenvironmental approach to health.

Approaches to Health and Health Education

The changing views of health education and health promotion have been linked to the widely accepted views of health and the influences on health. Labonte (1993) identifies the three historical approaches to health as the medical approach, behavioral approach and socioenvironmental approach. Within the medical approach, the body was viewed as a machine that was to be fixed when it had broken-down, i.e., when the body was

diseased. In the 1970's the increasing presence of chronic disease such as heart disease and cancer, which often resulted from lifestyle choices, led to the broadening of the medical approach to include a behavioral approach. The behavioral approach to health was expanded once more in the early 1980's to include sociological and ecological analysis of health and disease. The epistemology of the latter approach stems from the observation that lifestyle, and therefore health, improvements occurred mainly among the more wealthy, better-educated people (Labonte, 1993). Table 2.1, adapted from Labonte (1993), demonstrates the differences in these three approaches.

Table 2.1 Leading Health Problems by Three Historical Approaches

Medical Approach	Behavioral Approach	Socioenvironmental Approach
Cancer	Poor Eating Habits	Underemployment
AIDS	Lack of Fitness	Powerlessness`
Diabetes	Drug Use	Isolation
Obesity	Alcohol Abuse	Pollution
Mental Disease	Poor Stress Coping	"Stress"

Note. From "Issues in health promotion series" by Ronald Labonte, 1993

As a reflection of the behavioral approach to health, an early definition health promotion was presented as 'the art and science of helping people change their lifestyle to move toward a state of optimal health' (O'Donnell, 1986). This was based on the assumptions that the individual has a great deal of influence over his or her personal decisions and actions regarding diet, exercise, and other lifestyle choices and that changes in these personal behaviors can improve health outcomes (Minkler, 1989). Health education therefore was concerned with changing lifestyles to be more health enhancing.

The World Health Organization captured the socioenvironmental approach to health of the mid-1980's by defining health promotion as 'the process of enabling people to increase control over, and improve their health' (WHO, 1986). Within this context, 'peace, shelter, education, food, income, a stable ecosystem, social justice and equity' were thought to determine health. Health Canada has identified 12 factors that determine health including income and social status, social support networks, education, employment and working conditions, social environments, physical environment, personal health practices and coping skills, healthy child development, culture, health services, gender and, finally, biology and genetic endowment (Health Canada, 1999).

As the socioenvironmental approach concerns control, empowerment is a key variable in health and is defined as a multi-level construct that involves people assuming control over their lives in the context of their social and political environment (Wallerstein, 1992). At an individual level, empowerment involves individual self-efficacy and motivations to exert control and community-level empowerment involves communities having equity and capacity to solve problems, being able to identify their problems and solutions and increasing participation in community activities (Wallerstein, 1992).

Similar in philosophy to the WHO, the Canadian Government issued a framework for health promotion entitled the 'Epp Report' in 1986. This report effectively demonstrated the socioenvironmental approach by outlining three challenges for Canada in order to meet its goal of 'health for all' including reducing inequalities, increasing prevention and enhancing coping abilities (Epp, 1986). These challenges were to be met through the health promoting mechanisms of self-care, mutual aid and healthy environments in

conjunction with the implementation strategies of fostering public participation, strengthening community health services and coordinating healthy public policy (Epp, 1986). These mechanisms and strategies are far more comprehensive than solutions created using a behavioral approach.

Labonte (1986) applies the socioenvironmental approach to health education by stating that the task for health educators is to 'create social and economic conditions premised on health promotion'. Labonte argues this assertion based on the belief that health is an outcome of socioeconomic structures and public health must become a voice in the struggle to end inequality. As such, health education is 'explicitly political, based primarily on working with community groups and is engaged in a social-change process'. Further, health education programs should stimulate a critical understanding of the causes and structures of social inequality (Labonte, 1986). Although theoretical distinctions can be made between a behavioral and a socioenvironmental approach to health it is likely that effective health education strategies often combine components of the two.

Individual-level and Community-level Health Education

Whether using the behavioral approach or the socioenvironmental approach to health, a health education intervention may be applied at the individual or community level (Steckler et al., 1995). Health education may further influence or be influenced by policy changes. This theoretical distinction is made while acknowledging these three levels, i.e., individual, community and policy, are linked and an intervention targeted at any one level may have an effect on the others (Steckler et al., 1995). For example, Labonte (1986) suggests that health education is distinctly political and is based primarily on working with community groups in a social-change process.

Individual-level intervention strategies in health education have been used most often in medical care and have been successful in the treatment and care of patients with chronic disease (Steckler et al., 1995). The shortfall of such an approach is failure to incorporate social and environmental factors that influence health, such as an individual's income level. Further, this approach does not facilitate a sharing of power between the educator and the student. An individual approach to health education, the prospect of 'teaching' an individual, can also lead to victim blaming and may not eliminate the source of the problem. Medication counseling, typically one way provision of information from the professional to the patient, is an example of individual-level health education.

Community-level health interventions offer another, more comprehensive, option for improving health status through education. Hawe (1994) outlines three approaches to community typically adopted in health promotion. The first, and most common, is community as 'lots of people', or community as a population. The second is community as setting, with aspects of the environment supporting individual behavior change. The third approach is community as an 'ecosystem with capacity to work toward solutions to its own community identified problems'. Consistent with this third approach, Steckler et al. (1995) maintain that the most effective community health education intervention strategy is one that raises the level of awareness, involves groups that are at risk and enables them to devise their own strategies to reduce this risk. To improve the success of community interventions the influences of the socio-cultural environment should be incorporated (Steckler et al., 1995).

Labonte (1993) recommends community organizing as one path to an empowering health promotion practice, the others being personal care, small group development, coalition building and advocacy and political action. Community organization describes the process of organizing people around issues that are greater than the group members' immediate concerns. Seniors and their medication-taking practices is an example of an issues that may be addressed at the community as well as the individual level.

Key concepts often misused when describing community organizing are 'involvement' and 'participation'. A broad-based approach to participation invites participants to name problems in the specific ways most useful to the largest number whereas involvement invites participants after the problem has been named. Table 2.2, adapted from Labonte (1993), distinguishes between participation and involvement in community organizing strategies. Consistent with Labonte, Steckler et al. (1995) suggest that an effective community approach to health education is one that involves groups that are at risk and enables participants to devise their own strategies. Steckler et al. (1995), however, fail to expand on involvement and the corresponding process used to devise educational strategies.

A less comprehensive definition of participation was found in Webster's Dictionary (1991) as a "state of being related to a larger whole" and participate was defined as, "to share in something". These definitions approach participation at the group-dynamic level as opposed the process-level previously described. As these definitions relate to the cohesiveness of a group, they expand the understanding and exploration of participation.

Table 2.2. Fundamental Characteristics of Participation and Involvement

Participation	Involvement
Open frame of 'problem-naming'	Problem determined by agency sponsor
Shared decision-making authority	Structure is advisory; it may have some, limited decision-making autonomy
[1] The stakeholders' right to be engaged is central to the process	The stakeholders' right to be engaged is not central to the process
Negotiated, formalized relationships	Tendency to non-formalized agreements, or to formalized conditions of involvement unilaterally set by the agency sponsor
Resources for stakeholder participation	Terms of engagement are ultimately in control of the agency sponsor
Stakeholder accountability to a larger constituency	Citizens treated as individuals rather than as organized constituencies

Note. From "Issues in health promotion series" by Ronald Labonte, 1993.
[1]Reworded for clarification.

Policy-directed interventions address environmental factors that influence health and behavior, similar to community-level interventions (Steckler et al., 1995). Interventions aimed at altering policy however, require an understanding of the nature of social, economic, and political power as well as the policy process in order to effectively address these environmental factors (Steckler, et al., 1995).

Although there are characteristics that distinguish each of the three levels of intervention, McKinlay (1996) points out that the three system components, individual, organization and policy, are interdependent. For example, policy can affect organizations

and change provider behaviors in a step-down fashion (McKinlay, 1996). Similarly, community-level interventions have the ability to influence policy such as increasing police patrols in a community as demonstrated by Minkler (1985). Pal (1997) defines public policy as a course of action or inaction chosen by public authorities to address a given problem or interrelated set of problems (p. 1).

Behavioral Approach to Health Education

A behavioral approach to health education can be applied at either the individual or community level. At an individual level, the educational strategy would focus on changing and individual's lifestyle and behaviors in ways that are health enhancing. Medication counseling, typically one way provision of information from the professional to the patient, is an example of an individual-level health education strategy that uses a behavioral approach. The behavior often targeted in these approaches is medication compliance. There are many examples of these approaches in the literature.

In a study that evaluated medication counseling by a health care professional, it was found that the counseled group had significantly better compliance than the un-counseled group (Edwards & Pathy, 1986). Another method commonly targeted at the individual level is the use of written information either with or without verbal counseling. The combination of the two methods has been shown to be more effective than verbal counseling alone (Roden et al., 1985). Some interventions have included the use of memory aids (such as a tear-off calendar) which, in one particular study, actually confused and frustrated the patients (MacDonald et al., 1977). Hawe & Higgins (1990) found that the use of verbal counseling, written information and audiovisuals significantly improved compliance in their elderly sample.

A working paper examined the English language literature for the years 1993 through 1998 for studies regarding methods of education for the elderly or patients with diabetes, depression, asthma or infection about prescription and non-prescription medications (Maddigan et al., 1999). Educational techniques were broadly categorized as one-to-one education, group education, written information or follow-up. Outcome measures were categorized as economic, clinical, humanistic (health-related quality of life) or drug management. The impact of the intervention was considered positive if there was a statistically significant improvement, neutral if there was no statistically significant change or negative is there was a statistically significant decline from baseline measures.

Overall, the study found that the most frequent educational interventions were one-to-one education with written information (21%) followed by one-to-one education with written information and follow-up (17%). A combination of two or more interventions provided more positive outcomes than one intervention alone. The most successful intervention was group education with follow-up and one-to-one with follow-up. Drug management outcome measures were most likely to be impacted.

Specific to the elderly population, the literature review included 11 studies (Maddigan et al., 1999). The most frequent educational intervention was one-to-one education with written information and one-to-one with written information and follow-up, with most studies assessing drug management. The most successful intervention was written information alone, followed by one-to-one education with follow-up. In this population, the education interventions had more positive impact on drug management and humanistic outcomes.

Three studies evaluated the effectiveness of interventions to improve drug knowledge (Ryan, 1998; Taira, 1991; Ascione & Shimp, 1984). Ryan (1998) employed a pretest/posttest questionnaire for assessing knowledge of 15 patients in Northern Ireland and found that the intervention increased drug knowledge 26% on average. In addition, Taira (1991) discovered that a sample of 20 clients living in an elderly care home significantly improved knowledge when exposed to the verbal and written educational intervention followed by a posttest (paired t-test between pretest and posttest significant at the .05 level). Finally, Ascione & Shimp (1984) reported that drug knowledge, including purpose, regimen, side effect and action if dose is missed, was improved most effectively using oral instructions alone or combined with medication reminder calendars in thier randomized, controlled, single-blind study using 158 cardiovascular patients.

Two studies reported effectively improving health-related behaviors through health education interventions. Ascione & Shimp (1984) measured compliant behaviors by having patients estimate the number of doses they missed in typical month. These behaviors were improved by oral instructions plus medication reminder packages. In an additional study, a pharmacist-managed medication review intervention was successful in reducing in the number of unscheduled physician visits, urgent care visits, emergency room visits and hospital days. Patients also used fewer health services (Borgsdorf et al., 1994).

A review of studies examining individual-level education employing a behavioral approach confirms that this approach is effective at changing medication knowledge, medication compliance and some health utilization practices in ways that are health enhancing. Further, the educational curriculum in each intervention was designed by a

professional and not by the participants, demonstrating seemingly common characteristic of individual-level, behavioral interventions. Finally, the studies reviewed measured short-term changes in knowledge and behavior but did not address long-term effects of the intervention. These short-term improvements may have partially been the result of participating in the program.

The behavioral approach to health education can also be applied at the community level. In these cases the educational strategy may target a group of people, may focus on environmental issues and/or may create community capacity. Three community-level behavioral strategies have been developed to improve the medication-taking practices of seniors. These strategies target groups of people and focus on creating supportive environments, i.e. increasing awareness of pharmacists, but do not aim to create community capacity. These educational strategies have not been published in the scientific literature, but descriptive accounts are available from the agencies developing the strategies.

The Rx&D developed an educational program to address inappropriate medication use (Pharmaceutical Manufacturers Association of Canada, 1994). "Knowledge is the Best Medicine" was designed to raise awareness among consumers about the importance of appropriate medication use and the need for Canadians to be active participants in their health care. A specific "seniors" module addresses the needs of Canadians 65 years of age and older. A small group workshop, an educational brochure, and a personal medication record are components of the program. Each session is evaluated through a pre and post-program questionnaire and a six month follow-up telephone survey. The project aims to empower participants as it transfers some control to the seniors by

advising on what questions to ask a pharmacist or doctor and how to be prepared for a visit to the pharmacy or for a medical visit. This project did not involve the at-risk group in devising their own strategies and did not incorporate the social, cultural and economic environment.

A social marketing project developed by The Division of Aging and Seniors of Health Canada targets health care professionals. "Medication Matters: How You Can Help Seniors Use Medication Safely" was developed to help professionals give seniors the information they need to use medication safely (Health Canada, 1996). The project helps professionals by providing information on clear, verbal, communication techniques and easy-to-read written information. Similar to the above strategy, this intervention does not involve the at-risk group in devising strategies or incorporate the majority of factors influencing medication-taking.

A recent program developed by the Canadian Pharmacists Association entitled "Just Checking...Am I Getting The Most From My Medication?"(1998), identifies areas of concern to the older adult. The program maps out a problem-solving route from simple packaging and labeling issues to a medication review. The program was developed in part by a Seniors' Association and the information used in the program came from older adults themselves. Although the patient is encouraged to take an active role in taking their medication, the program is designed to help pharmacists or other health professionals assist the patient. This intervention captures some characteristics of a community level intervention such as involving the at-risk group to devise strategies and raising the level of awareness of the participants. The intervention does not, however,

incorporate the socio-cultural environment and by helping the pharmacist assist the patient, the program leaves all of the power in the hands of the professional.

Analysis of community-level interventions employing a behavioral approach provides insight for future research. The absence of published literature in this area indicates a gap in community-level interventions to date and suggests that employing a community-level approach may expand the knowledge base. Seniors appear to be a priority with respect to medications as each of these three interventions is targeted at an older adult/senior population and attempted to inform a group. A limitation of these three interventions is that they were not evaluated and therefore judgement on the quality or effectiveness of the program cannot be made.

Socioenvironmental Approach to Health Education

Similar to the behavioral approach, a socioenvironmental approach to health education can be applied at the individual or community levels. At an individual level, the approach would enable people to increase control over and improve their health. This approach would incorporate the broad determinants on health including equality, peace, education, etc. There were no examples of individual-level health education interventions that used a socioenvironmental approach in the medication-taking literature. An example, not specific to medication-taking is the 'Healthy Cities' project (Ashton et al., 1986).

At a community level, an educational strategy that utilizes a socioenvironmental approach would target groups of individuals, modify environmental conditions to support individual behavior change and would foster community capacity. As with an individual-level approach, these community strategies would enable people to increase control over

their health and focus on the broad determinants of health. There were no community-level strategies that employed a socioenvironmental approach identified in the medication-related literature. The World Health Organization's 'Healthy Cities Project' provides a non-specific example. This project uses intersectoral cooperation, community participation and action-based city plans to improve morbidity and mortality through lifestyle indicators such as physical exercise and eating habits (Ashton et al., 1986). The project used other indicators such as cultural identity, community participation and the social environment. Since the project's inception, eighty-five cities have adopted this approach (Minkler, 1989).

In summation, health education strategies typically have adopted one of two approaches based on the philosophical underpinnings. Behavioral approaches targeted an individual's personal lifestyle choices and were commonly used in medical counseling. Socioenvironmental approaches were based on the comprehensive understanding that the determinants of health are broad including 'peace, shelter, education, food, income, a stable ecosystem, social justice and equity' and that health is related to individuals or communities power to control their health. These approaches can be applied at either an individual level or at a community level. Medication counseling typically employed a behavioral approach targeted at an individual level. Community-level strategies aimed at improving medication-taking practices also used a behavioral approach. There were no examples of socioenvironmental health education strategies at either the individual or community level that aimed to improve medication-taking practices.

Empowerment Education

Empowerment education is a community-level intervention that employs a specific strategy to understand and incorporate the extensive factors that influence health, reflecting a socioenvironmental approach. Throughout the process, the participants define their own issues and create strategies for action that will improve their situation.

Community empowerment education strategies concern 'the ability of people to gain understanding of personal, social, economic and political forces in order to take action to improve their life situation (Wallerstein, 1992). An empowerment education approach would always engage people through group dialogue to identify their problems, to critically assess the psychological, social, cultural and economic roots of their problems and develop action strategies (Wallerstein, 1992).

The specific process used in empowerment education stems from the work of Brazilian educator Paulo Freire. For Freire, the purpose of education should be human liberation, where people are subjects of their own learning (Wallerstein, 1992). Freire criticizes the 'banking' concept of education; a process in which knowledge is a gift bestowed by those knowledgeable upon those who know nothing (Freire, 1970). Freire maintains that critical and liberating dialogue must be carried on with the oppressed, with the content of that dialogue in accordance with the reality of the participants (Freire, 1970). The process must involve action in accordance with serious reflection - or praxis (Freire, 1970).

To achieve a process in which people are subjects of their own learning, Freire proposed a listening-dialogue-action approach to health education. The listening phase is a continuing process, which reveals issues of emotional and social significance to the

participants. These issues are then used as the basis for the health curriculum (Wallerstein, 1992). The second step, the dialogue phase, involves all participants and the health educator participating as equals to interpret the community's problems together. The purpose is to achieve '*conscientization*', or critical thinking, where participants analyze the root causes of the situation in the psychological, social, cultural and economic context of their lives (Wallerstein, 1992). The dialogue phase concludes with the development of action plans, which are then carried out in the final action phase. This community-level intervention indirectly affects health through enhancing the other community empowerment variables such as social support and networks, individual empowerment, community participation, sense of community, community competence, and control over destiny (Wallerstein, 1992).

The basic principles of an empowerment education project include the following criteria: listening, dialoguing for critical thinking, being participatory, empowering participants, resulting in action and finally, being reflexive (Wallerstein & Weinger, 1992; Wallerstein, 1992). First, the process should involve listening to participants' problems and eliciting emotional responses to the issues to create the curriculum for the education program. In this way, participants are subjects of their own learning. Second, participants should be engaged through group dialogue with the purpose of critical thinking, which would encourage examination of the root causes of their problems. The dialogue phase should incorporate the use of a 'code', which is a concrete representation of the issues identified in the listening phase. Codes are often in the form of role-plays, videos or photographs. Third, the entire educational process should be participatory, with participants and investigators acting as equals. Fourth, a primary goal of the program is

that the process is empowering as it allows participants to be their own decision-makers and develop action strategies themselves. Fifth, the participants should take action. The final principle of an empowerment education process is praxis, or the spiraling change between action and reflection to facilitate learning from life experiences (Minkler, 1985).

A review of the empowerment education literature according to the outlined criteria is shown in Tables 2.3 and 2.4. Table 2.3 provides an overview of each study, including the author, title, sample, method and results whereas Table 2.4 categorizes each study as it applies to the six empowerment education criteria. A single line in a column indicates that this topic was not addressed in the study. The majority of the studies were program evaluations of workplace empowerment education approaches (Askari & Mehring, 1992), (Elias et al., 1992), (LaMontagne et al., 1992), (Luskin et al., 1992), (McQuiston et al., 1994), (Michaels et al., 1992), (Miles, 1992), followed by case studies (Lugo, 1996), (Minkler, 1985), (Travers, 1997), (Wallerstein & Bernstein, 1988), one randomized control trial (Anderson et al., 1995) and one program description (Wang & Burris, 1994). The listening phase of an empowerment education approach serves to inform the curriculum of issues as they exist in the lives of the participants. As a primary criterion in empowerment education, a majority of the studies demonstrated this process. There was one exception in which case the curriculum was designed by the educator (Anderson, 1995). Due to limited time constraints for program delivery, 'listening' was often achieved prior to the formal meeting of participants through an interview or written needs assessments. Programs with fewer time constraints promoted 'listening' throughout all levels of the program by encouraging continuous feedback and input by the participants (Lugo, 1996; Luskin, 1992; Minkler, 1985; Travers, 1997; Wallerstein & Bernstein,

1988; Wang & Burris, 1994). Missing in the listening stages of many studies was incorporation of emotional responses to issues presented by participants. Lugo (1996), Travers (1997), Wallerstein & Berstein (1998) and Wang & Burris (1994) were successful at incorporating this important component through effective facilitation.

The 'dialogue' component of the empowerment education process incorporated personal experiences in all but one study (Anderson, 1995). In many cases the participants' personal experiences were incorporated into a semi-structured curriculum (Elias, 1992; LaMontagne et al., 1992; McQuiston, 1994; Micheals et al., 1992; Miles, 1992), for example students incorporating real world experiences with hands-on training (McQuiston, 1994). Other circumstances allowed the personal experiences to become the curriculum (Lugo, 1996; Luskin, 1992; Minkler, 1985; Schofield, 1998; Travers, 1997; Wallerstein & Bernstein, 1988; Wang & Burris, 1994) such as the group defining the format and content of discussions with guidance only from a facilitator (Schofield, 1998).Wallerstein and Bernstein (1988) used a five-stage questioning method to facilitate discussions, moving from a personal to social analysis and action level. 'Codes' or 'triggers' were discussed in all but five reports, and were in the form of role-plays, visual diagrams, photos and videos. Minkler (1985) found that the 'code' selected for the senior population was ineffective due to the overexposure to audiovisual stimulation in the daily lives of the participants.

Table 2.3. Empowerment Education Studies

Author	Study Objective(s)	Sample	Method	Results
Anderson et al., 1995	To determine if participation in a patient empowerment program results in improved self-efficacy & attitude toward diabetes	64 patients with diabetes; 70% female; Average age of 50	Randomized, wait-listed control group trial using patient EE program	Significant improvement on 4/8 self-efficacy scales and 2 diabetes attitude scales. Reduced glycated hemoglobin levels
Askari & Mehring, 1992	To empower healthcare workers to identify risks, develop strategies, discuss feelings and conduct HIV/AIDS workshops	100 healthcare workers in hospitals and community settings in California	Program evaluation	Descriptive: expanded knowledge, effective training strategies created
Elias et al., 1992	To improve safety and health in the health care sector through train-the-trainer workshops	200 healthcare facility staff in Manitoba	Program evaluation	Descriptive: expanded knowledge, decreased assistance needed in implementing training program
LaMontagne et al., 1992	To gain awareness of the hazards of EtO, to control them, review current methods, identify barriers & assure participation	105 workers, 75% female, most non-unionized	Program evaluation	Not discussed in report
Lugo, 1996	To foster community development while also providing individual case management services	A total of 1,403 pregnant women in Orange County, Florida	Case Study	Descriptive: 14 women trained, collective problem-solving skills developed, good participation

Table 2.3 *(Continued)*

Author	Study Objective(s)	Sample	Method	Results
Luskin et al., 1992	To have newly learned basic skills and knowledge to protect health and safety & feel empowered	Hazardous waste site workers and emergency responders in Massachusetts	Program evaluation	Descriptive: improved attitudes on health and safety, decontamination issues, and belief that course is valuable
McQuiston et al., 1994	To become and remain active participants in determining and improving work health and safety conditions	481 Union members; 50 plant management, Mean age 41 years, training occurred in Cincinnati	Program evaluation	Descriptive: participants obtained change in programs, training & equipment, improved handling of spills
Michaels et al., 1992	Improve workplace with Right-to-Know training via worker empowerment	4,000 local government employees from New York City	Program evaluation	Descriptive: increased awareness of hazards, development of communication policies, improved working conditions
Minkler, 1985	To address the interrelated problems by fostering social support and social action in the elderly	Elderly residents of San Francisco's Tenderloin Hotels	Case Study	Descriptive: improved health of residents through social action and social support
Schofield, 1998	To pilot an empowerment education approach for individuals with serious mental illness	13 residents living in a board and care home for people with mental illness	Qualitative action research design with Content analysis	Descriptive: recognition of sources of powerlessness, action to change environment

Table 2.3. *(Continued)*

Author	Study Objective(s)	Sample	Method	Results
Travers, 1997	To reflect on how a process of participatory research and community organization surrounding nutrition was an empowering educational experience	33 women from a drop-in Parent Centre in a low-income, urban neighborhood in Nova Scotia	Case study, observation, group interviews, semi-structured interviews	Descriptive: facilitate health education research that is more sensitive to needs of disadvantaged
Wallerstein & Bernstein, 1988	To reduce excess morbidity and mortality among multi-ethnic middle and high school students	Middle and high school volunteers from high-risk communities in New Mexico	Case study of adolescent abuse prevention (ASAP) in New Mexico	Descriptive: increased awareness, more confidence to discuss issues, increased perception of riskiness of drinking
Wang & Burris, 1994	To use Photo Novella and group dialogues to cultivate people's ability to take individual and collective action for change	62 rural Chinese women from Yunnan Province	Program description	Descriptive: booklets were created depicting the lives and problems of families in the community

Table 2.4. Empowerment Education Studies Evaluated by Criteria.

Author	Listening	Dialoguing	Being Participatory	Empowering	Taking Action	Being Reflexive
Anderson et al., 1995	Authors designed curriculum "Empowerment: facilitating a path to personal care" regarding diabetes, NOT participants	Curriculum established, focused on goal setting, problem solving, coping, life skills, social support & self-motivation	———	———	Action: Improvement in diabetes self-management	———
Askari & Mehring, 1992	Participants defined problems regarding HIV/AIDS in the workplace through telephone interview & in person prior to program	Related own experiences, explored source of problems. Codes included activities such as case studies & exercises	———	Devised own action plans to address problems	Action: Trainers returned to workplace and presented own workshops	Follow-up program implemented

Table 2.4. *(Continued)*

Author	Listening	Dialoguing	Being Participatory	Empowering	Taking Action	Being Reflexive
Elias et al., 1992	Participants defined problem areas regarding work site health and safety in a questionnaire & in person prior to program	Participant raised specific questions and answered own problems. Codes – role playing	_____	Presentation of solutions to group for discussion led to improved strategies	Action: Workers realized they had ability (power) to implement needed changes in the workplace. No comment if changes made	1-day follow-up program developed 1 year after program to discuss problems & solutions
LaMontagne et al., 1992	Participants identified problems regarding work site EtO in needs assessment which informed curriculum	Small group discussions incorporated personal experiences. Codes – visual (diagrams, drawings)	_____	Workers used instructors as resources rather than decision makers (made own decisions)	Action: Publication of training manual Health & safety training	Follow-up 6-8 weeks after program allowed for reevaluation of strategies 'reflection and action'
Lugo, 1996	Peer support groups or 'mother-circles' provided a forum to discuss women's issues	The women were encouraged to discuss their problems and the underlying issues	Peer support group leaders were hired to facilitate groups to promote equal participation	_____	Action: Increased social cohesion, repeated participation, mutual support lack of societal action	Program was to be continued under different funding source

Table 2.4. *(Continued)*

Author	Listening	Dialoguing	Being Participatory	Empowering	Taking Action	Being Reflexive
Luskin et al., 1992	Workers own experiences and knowledge formed curriculum to develop skills and knowledge for health and safety	Own experiences and available resources used to solve problems. Codes – Role playing	Small group discussions with peers facilitated participation	Students developed problem solving skills, analyzed root causes and used reference books	Action: Increased action to share safety issues, enhanced perception of health and safety	Sessions built on previous sessions
McQuiston et al., 1994	Not mentioned in report	Life experiences were incorporated into training. Codes – role playing of actual chemical spills	Open discussion was encouraged among participants regarding hazardous waste	Students & Union leaders decide on action strategies	Action: Action plans were discussed for improvements at the plant, Providing training to coworkers	Follow-up was generally for evaluation purposes, not reflection on practice for improvement
Michaels et al., 1992	Pre-program interviews and visits to job sites. Group discussions at onset of program for improving workplace conditions	Work/life experiences incorporated into training. Trainers used as resource. Codes - Photo slides	Open group discussions	Participants encouraged to solve own problems	Plans for action: Action plans for improving conditions	———

Table 2.4. *(Continued)*

Author	Listening	Dialoguing	Being Participatory	Empowering	Taking Action	Being Reflexive
Miles, 1992	On third day of training participants are asked of workplace hazards they interact with on a daily basis.	Experiences incorporated into curriculum. Codes – pictures, slides, videos of work site hazards.	Group discussions	Not discussed in report	Action: Skill development	Annual updates, report did not specify content of updates
Minkler, 1985	Listening occurred throughout project that aimed to foster social support for seniors in San Francisco	Modified problem-posing (Frierian) approach used. Codes were not appropriate for participants	Peer support groups with facilitators enhanced participation but minimum level of rapport needed	Seniors began to meet on their own, discuss problems and devise action strategies	Action: Increased police patrols, introduced 'Safehouse project', initiated mini-market and buying club	———
Schofield, 1998	Format and content of the group time for those with mental illness were determined by the members	Group identified key themes and explored options on own Codes – not mentioned in report	Group interacted with guidance (only) from facilitator	Group reached own solutions	Identified Action: Public education as important action, discussed employment issues	Facilitator lead group in collective self-reflective enquiry

Table 2.4. *(Continued)*

Author	Listening	Dialoguing	Being Participatory	Empowering	Taking Action	Being Reflexive
Travers, 1997	Group meetings where the women simply talked, sharing ideas and strategies regarding nutritional issues	Women analyzed and reflected on experiences and explored social roots of problems without interference from researcher	Group discussions with little interference from researcher	Women made most decision, researcher was resource	Action: Women learned coping strategies from each other, initiated change in commercial pricing practices	Facilitation emphasized reflection
Wallerstein & Bernstein, 1988	Promoted at every level of program that aimed to reduce morbidity and mortality among multi-ethnic, middle and high school students	Small group discussions Codes - use of two videos	Participation of young people as colearners with health professionals and patients	Promoted through youth peer teaching, make decisions for their own choices	Action: Community involvement such as participation in community events	———
Wang & Burris, 1994	Women's words and images form the curriculum, photos represent what the Chinese women say about their conditions	Photos provided the curriculum group discussions Codes – Photos taken by the women, descriptive texts	———	———	Action: Replaced community doctor, set up health posts, established community pharmacies	———

The third criterion of an empowerment education process is that the process should be participatory, with the investigator and participants acting as equals. It is important that the distinction be made here between participation and involvement (Labonte, 1993). Participation invites others to name problems in the specific ways most useful to the largest numbers, whereas involvement invites others after the problem has been named in quite specific ways. In most reports, the participatory nature of the process was not overtly discussed, yet the studies provided the information for participation to be inferred. When addressed, participation was only reported through process, for example 'open group discussions' (Micheals et al., 1992) or 'facilitators enhanced participation' (Minkler, 1985). Participation was not analyzed based on indicators of participation such as the participants believing they had knowledge or influence or that participants felt they belonged to a larger group.

The empowerment education process should be empowering to participants as they are decision-makers in developing strategies to improve their own situations. Empowerment was not addressed as an isolated variable, rather it was demonstrated through participants' decisions and actions. For example, Elias (1992) reported participants realized they had both rights and ability to implement needed changes in the workplace indicating an increase in personal power. Community-level empowerment variables such as social support and networks (Lugo, 1996), individual empowerment (Elias et al., 1992), community participation (Luskin et al, 1992) and community competence (Minkler, 1985; Travers, 1997; Wang & Burris, 1994) were identifiable in the actions taken by some groups. For example, Lugo (1996) reported increased social cohesion among participants.

Action, the fifth criterion of empowerment education, was demonstrated in the results of some, but not all of the reports. Examples of action included skill development (Anderson et al., 1995; Miles, 1992; Wallerstein & Bernstein, 1988), training of others (Askari & Mehring, 1992), publication of a training manual (LaMontagne et al., 1992) and changes in community environment (Minkler, 1985; Travers, 1997; Wang & Burris, 1985). Some studies alluded to action, but did not directly comment on the action taken by participants (Elias, 1992; Luskin et al., 1992' McQuiston et al., 1994; Michaels et al., 1992; Schofield, 1998). For example, Elias et al.(1992) reported that the workers realized they had both the rights and ability to implement needed changes in the workplace but did not comment on action. Lugo (1996) reported improved social cohesion despite a lack of societal action.

The sixth and final criterion for an empowerment education process is 'praxis' or the spiraling change between action and reflection. Only three studies reported praxis by including a follow-up component (Askari & Mehring, 1992; Elias et al., 1992; LaMontagne, et al., 1992). For example, LaMontangne et al. (1992) implemented a follow-up program six to eight weeks after the initial program for reevaluation of strategies after participants had the opportunity to act on them.

In general, the empowerment education literature did not analyze the process as it related specifically to the six criteria but rather presented an overview of the entire program. Further, each study had individual, and often different, definitions and applications for the criteria. For example, 'listening' occurred either throughout the entire education process or through a preliminary needs assessment, yet both were considered 'listening'. In addition, the studies did not link the results/strategies as decided upon by

the participants to the listening & dialogue process, an analysis that could provide valuable insight into the empowerment education process as well as to specific program implementation. The ability of a community-level intervention, specifically empowerment education, to incorporate socio-cultural influences is demonstrated by some of these studies. For example, the participants in Travers' study (1997) reflected on the social roots of problems and learned coping strategies from each other. Finally, these studies demonstrated the ability of an empowerment education approach to change some social and economic conditions. For example, Minkler (1992) reported that the seniors established 'mini-markets' in their hotels to combat malnutrition caused by poor access to fresh fruits and vegetables.

In summary, medications play a significant role in the lives of Canadian seniors, sometimes with negative consequences. Health education interventions may be effective at improving the medication-taking process in older adults and can operate at a behavioral or socioenvironmental level. An empowerment education intervention is a community-level intervention that uses a socioenvironmental approach with increased effectiveness by incorporating the physiological, functional, psychological as well as social, economical and political influences. A community-level empowerment education intervention related to medication-taking was not identified in previous literature.

Chapter 3 – Method

Introduction

A participatory action research (PAR) approach was used to facilitate discussions with seniors to critically analyze medication-taking issues in the context of their own lives. The data was analyzed to achieve the objectives of demonstrating the empowerment education process as it applies to seniors and their medications as well as identifying strategies that would improve the medication-taking process.

Participatory action research stems from the work of Freire and the reflexive nature of the approach is consistent with community empowerment principles (Baker et al., 1998). The values, methodology and goal or PAR is congruent with empowerment education principles. Smith et al. (1997) describe the three values that are central to the PAR approach. First, all people have the ability to think and work together to improve their situation. Second, present and future resources are to be shared equitably so as to support fair distributions and structures. Third, commitment is required from all external and internal participants (Smith, Willms et al., 1997). The methodology of PAR is 'praxis', or the spiraling, reflexive process of action-reflection followed by reflection-action (Smith, Willms et al., 1997). A goal of PAR is 'conscientization' where participants become aware of the social, political and economic constraints holding them, and take action against these forces.

The empowerment education process consists of the three phases, Listening-Dialogue-Action. This study has captured only the 'dialogue phase' of the empowerment education process. This was possible, as this study was a component of a larger project

entitled "Developing a medication review program via Listening-Dialogue-Action with seniors and health care providers" (Medication Review project) (Farris et al., 1999). The 'listening phase' of the Medication Review project provided the background information that was used in the video, or 'code', of this study. The information collected and the strategies recommended through the 'dialogue phase' of this study have augmented the foundation for the action phase of the Medication Review project. In addition, the participants from the dialogue phase were invited to participate in the action phase of the larger project.

Design

Participatory Action Research (PAR) is both an intervention and a means for studying an intervention. As such, a PAR design was used in this project to study an empowerment education intervention. Action research is similar to empowerment education as it focuses more on the process of learning than the product of learning and consequently, outcomes concern better understanding of the process rather than measurable changes in participants (Schofield, 1998). Hence, PAR facilitates achieving the first objective of this study, to demonstrate an empowerment education process while the empowerment education process achieves the second study objective of identifying strategies to improve medication-taking behaviors of seniors.

As an intervention, participatory action research shares many of the same features as empowerment education. The four key elements in PAR are participation, dialogue, energy points and enabling strategies (Smith, Willms, & Johnson, 1997). These are consistent with an empowerment education approach.

Participants

Three groups of participants were asked to participate in this study and each of these groups were then independently involved in a series of two focus groups. One of these groups was from a seniors' lodge and two were from existing community groups. Individuals from a seniors lodge were invited to participate in the project through initial contact with the director and, once the study was approved, through the staff at the lodge. Participants were invited to participate directly at a social event and indirectly via posters in high traffic areas of the lodge. The two community groups were recruited through two key contact people who were responsible for all of the arrangements.

In order for the participants to share their experiential knowledge on the topic of medication-taking, it was important that the participants be 65 years or older, members of an identifiable community and taking one or more prescription or non-prescription medication. Eight individuals from the non-profit, privately operated lodge volunteered to participate. These participants lived alone or with a spouse, in apartments and could receive a number of care services. This group of seniors primarily interacted with each other and the care facility provided them with many opportunities to socialize. Ten individuals participated from an existing network of seniors who were dedicated to assisting others in their community. These seniors lived in their own homes, were very independent and committed to improving their community. The third group of seniors was a community group that started eleven years ago to provide seniors with the opportunity to interact with each other and learn about community services. This group meets once each month for lunch, socializing and a presentation. Eight volunteers from this group agreed to participate in the project.

Data Generation

Data collection involved audio recording and transcription of a planning group meeting and two focus groups for each of the three groups of participants. In addition, an assistant took notes during each of the group discussions to capture meaningful instances that may not have been recorded by the microphone as well as to provide back-up data in case the tape-recording was ineffective. These notes were used by the transcriptionist and the researcher to enhance data collection and analysis. An audit trail was used to record the researcher's decision points which helped to frame the interviews in the correct context. A contact summary sheet was filled out immediately following each contact and recorded information about the setting and the researcher's initial thoughts.

Before the initial focus group, the participants were asked to review a Study Information Sheet, complete an Informed Consent Form and a Demographic Questionnaire. These can be found in Appendices A-C respectively.

Planning Meeting

The planning meeting included four seniors who were prepared to participate in the focus groups and took place one week prior to the first focus group. The intention of the planning meeting was to ensure a high level of participation in the project, encourage group participation and solicit participants' opinions. The planning group discussed the overall design of the group sessions and discussed ways to encourage the greatest participation in the focus groups. The planning group also discussed possible outcomes from the project and how the group would measure success. Discussion of the possible outcomes was done to assure that the interests of the group were incorporated along with the academic/research interests. The outline for the planning meeting follows.

Outline for planning meeting

1. Discussion and clarification of objectives for Phase II, Seniors' Dialogue.

2a. Viewing of video and reading of video script – comments.
2b. Review of Focus Group One questions and comments on effectiveness.

3. Review of Focus Group Two questions and comments on effectiveness.

4a. Discussion of overall Phase II process and the ability of this process to encourage the greatest participation by all participants.
4b. Suggestions for improvement or changes to increase participation by all participants in Phase II.
4c. Discussion on methods for data collection to assure that the method used will primarily analyze the problem to support change and secondarily support research interests.

5. Possible outcomes or measures of success as negotiated by the group.

6. Other suggestions or comments.

Focus Group 1

The purpose of this first meeting was to view the video or 'code', to dialogue employing the five-step empowerment education process and to devise strategies for improving medication-taking in seniors. The participants were also given a written copy of the video script so that they could refer to it during the discussion. The code was derived from the 'listening phase' of the larger, Medication Review project (Farris et al., 1999) described in the following section.

The listening phase of the Medication Review project occurred from September 1998 to March 1999 and included five different groups of seniors. The groups varied in level of independence ranging from independent home-dwelling seniors accessing a seniors' recreation centre, to seniors living in lodges needing assistance with daily medications. All participants were over the age of 65 and were taking three or more medications. The

'listening phase' of the project identified problems that seniors incurred with their daily medication management. These problems are outlined below and provided the content for the video, or 'code'. The 'actresses' in the video were seniors that volunteered their services.

Table 3.1. Data from Listening Phase: Problems with medication management

Can't rely on others to help you, they don't know and they may forget
Different pharmacist assists me each time I go into the pharmacy
I have medication (left over) from the doctor's prescription and they are costly
If I ask my doctor about a problem, he gives me a prescription
Physicians do not have enough time to discuss medications
Sometimes there are dispensing errors
Taking too many medications
Use too many physicians and each one gives prescriptions

Note. From Farris et al., 1999

Wallerstein and Bernstein (1988) maintain that an effective code should show a problematic situation that is many sided, familiar to participants, and open-ended without solutions. For this project, the code was a 2-minute video involving two seniors discussing their medications in a home setting. The video discussed individual level problems such as the large number of pills seniors take, the numerous doctors and pharmacists they see, problems they have accessing their medications (in the containers) and the desire to control their medications. The video also discussed the role that the family plays in the medication-taking process. A community level issue provided the undertone to the video, as seniors tend to discuss their medications and often make

recommendations to each other. Social or policy-level issues covered in the video included the number of doctors visited, the cost of medications, the role of natural medications and the issue that health care professionals can make mistakes with medications. The script for this video can be found in Appendix D.

For the first set of focus groups, the facilitator used the five-step approach to lead a discussion around the issues identified in the video (Wallerstein & Bernstein, 1988). Generally, the participants were asked to: describe what they see and feel; as a group, define the many levels of the problem; share similar experiences from their lives; question why this problem exists; develop action plans to address the problem. The specific questions for focus group one are shown below. This same technique has been used with school-aged adolescents in New Mexico (Wallerstein & Bernstein, 1988).

Focus Group 1 Questions

The general five-step strategy (italicized text) as presented in Wallerstein and Bernstein (1988) is followed by the actual questions that were used in the focus group.

1. Describe what they see and feel
What problems did you see in the video? How did it make you feel?
(Prompts: number of medications, problems with the number of doctors, the pharmacist not knowing who they were, costs of drugs, packaging of drugs, skipping doses)

2. Define the many levels of the problem
What is really happening in the video? What are the characters' feelings? How is this a social issue? What about a psychological issue? How is this a cultural issue? How is this an economical issue? What about a combination of these?

3. Share similar experiences from their lives
How does the scenario in the video relate to your lives? What experiences have you had like these?

4. Question why the problem exists
Why do the characters in the video have this problem? What about from an individual perspective? What about at the family level (what is/is not happening in the family so that this problem exists)? What about at the society level?

5. Develop action plans to address the problem
What can we do about this problem in our own lives? How can the characters get help? What would you do if you were in this situation? What are better ways to handle this situation? What could be done in the community to prevent this problem?

Focus Group 2

Each group of participants met for a second time approximately one to two weeks after the first discussion. The purpose of the second meeting was to verify the analysis of the results, discuss what the group wanted to do with the results from the project and discuss the overall empowerment education process. The participants were given a summary of the results obtained from the first focus group and asked to review them. The facilitator reviewed the results verbally with the group and the group discussed the results to confirm accurate analysis by the researcher. The group then discussed what they would like to do/have done with the results and talked about the overall empowerment education process. The questions from focus group 2 are shown below.

Focus Group 2 Questions

The facilitator reviewed each main section of the summary and asked the participants:

1. Do you think this is an accurate description of what we discussed?
   If no, what should be different?

2. Do you have any other comments about the results? In general?

3. What would you like to do with these results?
   (Whom should they go to? Where should they go? Why?)

4. What are your next steps – do you need assistance to make your plans happen?

5. What did you think of the process of watching the video and discussing the problem with the group?

6. How would you describe the overall process? Do you feel that you learned new things from doing it this way? If so, why?

7. Had you thought of the problems seniors have with medications on the different levels before?

8. What other comments or suggestions do you have regarding the process we used?

Data Analysis

Content analysis was used to analyze the unstructured data from each focus group. The data was analyzed to describe the empowerment education process based on the identified criteria and to identify strategies as proposed by the groups. Validity was enhanced by providing opportunities for participants to comment on the preliminary analysis in the second focus group. The analysis explored whether the intervention influenced health by enhancing the other community empowerment variables such as social support and social networks, individual empowerment, community participation, sense of community, community competence, and control over destiny as suggested by Wallerstein (1992). An analysis was also completed that compared the three groups of participants as well as the differences between the two sets of focus groups.

Content analysis is the analysis by topic. Topics, or main ideas, evolve from assigning category and subcategory labels to data (Morse & Field, 1995). The researcher read the entire transcript and identified 10-15 broad categories that contained large chunks which pertain to similar ideas. These categories were then broken into smaller categories forming a hierarchical tree diagram. Once the categories were secure, the researcher wrote descriptive paragraphs about each of the categories and the relationship between

the categories. Reliability of these categories was established with confirmation by another researcher at the beginning of the analysis (first 5-10 pages). This second researcher ensured that the categories were appropriate. NUD*IST software was used to assist in the data analysis.

Reliability & Validity

As qualitative research emphasizes the uniqueness of human situations, variations in an experience instead of identical repetition are pursued (Sandelowski, 1986). Guba and Lincoln (1981) recommend that auditability should be the criterion of rigor relating to consistency of qualitative findings and that findings are 'auditable' when another researcher can follow the 'decision trail'. This study assured auditability through the researcher using an audit trail to record all decision points and insights during the research process. Moreover, a second researcher who was unfamiliar with the study reviewed and confirmed the categories once during the analysis.

Validity, or the truth value of qualitative research refers to the discovery of human experiences as they are lived and perceived by subjects (Sandelowski, 1986). Validity can be established, however, through four methods including triangulation, construct validity, face validity and catalytic validity (Lather, 1991). The first method is triangulation, or the use of multiple methods or sources of information to crosscheck information. In this study, information was collected from three distinct groups of seniors and the findings from these groups were compared in the analysis. The second method is construct validity, 'the reflexivity that builds systematic ways to critically question actions and practice and thereby construct knowledge'. This was achieved as the participants continually reflected on their own personal medication-taking practices. In addition, the

participants were asked to reflect on the empowerment education process. Further, the video encouraged participants to reflect on their personal medication-taking practices, the planning meeting facilitated reflection on the project and the audit trail encouraged the researcher to reflect on the overall project. The third method is face validity, which relies on using participants to verify analysis of results to increase credibility of data. The participants verified the results in the second focus group. Moreover, the researcher used the audit trail to track decision points and thoughts throughout the process, which would contribute to eliminating bias. Finally, catalytic validity is established if participants are energized to take action. The scope of this project limited participants from taking action as a group, but they may individually take action. Some of the participants were invited to volunteer with Medication Review Project.

An additional criterion, namely applicability, is critical for ensuring rigor in qualitative studies (Morse & Field, 1995). Applicability is the guideline that determines if these findings can be applied in other contexts, or with other groups. Applicability is enhanced by detailed descriptions which enables other researchers to assist potential similarity to characteristics of another setting In order to provide a rich description of the study climate, the researcher recorded information about the participants and the context of the research. This information was used as a measure to determine if the findings applied to other groups.

Chapter 4 - Findings

The findings of this study indicate that this empowerment education project successfully met the study objectives. First, a description of the study participants will be presented. Second, objective one, to demonstrate an empowerment education approach with seniors, will be discussed. Specifically, topics regarding the overall process and the six empowerment education criteria will be explored to demonstrate the empowerment education process. Finally, the second objective, to identify strategies for action, is presented within the fourth empowerment education criteria, Strategies for Action.

Numerous quotations from participants are reported to illustrate the findings. These were separated by a single space if they represent disunited quotes from separate participants. Quotations that followed one another in the discussion and are linked by concept were not separated by a single space. Quotations of 40 or more words were not enclosed in quotation marks but are presented as freestanding, indented blocks of text. Three ellipsis points (...) were used within quotations to indicate omitted material. Material was only omitted if words were repeated or did not pertain to the topic presented, such as wandering thoughts.

Participants

The entire sample consisted of 26 individuals over the age of 65 who were taking at least one prescription medication. Specifically, community group one included 10 participants, community group two included eight participants and the lodge group also included eight participants. The participants consisted of mostly women, but each group

included two men. The average age of the participants was 73.8 years old with a range of 66 to 80 years.

At the time of the meetings, the participants 'currently took' an average of 3.8 prescription medications with the range being from one to seven medications. The participants used from zero to five non-prescription medications, with an average of 2.4. The most common non-prescription medications were vitamins. The participants did not receive any assistance with their medications other than from pharmacists who organized their pills into containers and dosettes. Finally, other than lodge residents, the seniors all lived in houses or apartments.

The Overall Process

In order to demonstrate an empowerment education process, the first objective of this study, general concepts that provided insight into the overall process were identified. Most of these concepts emerged from the data and were not answers to direct questions. The only exception was the concept 'other applications of the process' which was asked directly of participants in the second focus group. The general concepts that emerged regarding the overall dialogue process included effectiveness of planning meeting, purpose of focus groups, group differences – participants, effectiveness of questions, understanding the purpose, the five-stage process, transitions, additions to empowerment education, other applications of the process and finally the video. Examples from the discussions are given to illustrate each of these concepts but do not represented an exhaustive list of all examples from the discussions.

Effectiveness of the Planning Meeting

The planning meeting allowed some of the participants the opportunity to share their thoughts and insights on the upcoming focus groups. Although a few helpful suggestions were made such as measures for success, the suggestions were very limited seemingly by an overall poor understanding of the empowerment education process. The true value of the planning meeting turned out to be providing the researcher with the opportunity to 'pilot test' the overall process and refine the questions and prompts. Working through the five-stage process resulted in participants actually answering the questions instead of commenting on the content or the intended approach. The planning meeting generated similar responses to the focus groups and the suggestions are included in the sections 'Critical Thinking' and 'Strategies for Action' later in this chapter.

The participants were asked specifically how other individuals could be encouraged to participate in the upcoming focus groups. Other than the simple answers 'just ask them', 'have to have a leader' and bribery, the participants did not have additional suggestions. They did however agree that participation was important and that it was often difficult to encourage people to participate.

> Somebody has to get these things moving...
> Have to have a leader.
>
> They coax us along enough, we might go. Like today.
>
> Participation is the answer, and how do you get people to return? And it isn't just here, it's everywhere.
>
> It's always the same three or four people.

The group of participants at the planning meeting was also asked what they felt would be appropriate measures of success for the overall project. The two suggestions given were 'how much interest there is in it' and 'how much it, what ever it is, is used'.

Intent of Focus Groups

The initial approach for this project was to use the first focus group to apply the empowerment education process and the second focus group to verify results and to reflect on the overall process. It became obvious toward the end of the first focus group that the participants were becoming tired and losing interest in the project and, consequently, were unable to recommend many strategies. As a result, the second focus group meeting was used to expand on these strategies as well as verify results in all three groups of participants.

> This 'people skip doses', I think this should be elaborated on a bit....Rather than skip doses...
> Change the dose sometimes. Not the amount, but they'll tell me to take it in the morning but I take it at lunch because I already have so many in the morning

The second focus group was held approximately one to two weeks after the first focus group meeting. This time delay allowed the participants opportunity to reflect on the overall process, and they were able make some excellent insights on the empowerment education process. Comparing the quality of the results from the second focus group to the results from the planning meeting suggests that the participants gained an understanding of the process by participating in it. For example, participants at the second focus group recommended telling people that the process is enjoyable and that they may learn from it to encourage participation in addition to recommending that the process should be informal.

> I think some people may be, I won't say frightened, but maybe they are afraid of what they're going to discuss. Maybe they think it's personal, I don't know ...If it becomes very informal, they may have less resistance to it, I don't know

In contrast, the planning meeting participants could only suggest asking or coaxing participants to become involved.

Group Differences – Participants

Of the three distinct groups of participants, two were community groups comprised of individuals living in their own homes and one was a group comprised of individuals living in a seniors' lodge. The group from the lodge provided excellent contrast to the other two because their sheltered living situation appeared to limit their participation in the project. For example, this group responded almost directly to the questions or prompts provided by the researcher and rarely expanded the dialogue among themselves. The examples provided below are the entire discussions between the investigator (I:) and the participants (P:) about these specific topics.

> I: What about labels on bottles?
> P: Too small.

> I: Ok, what about the fact that they see so many doctors?
> P: Don't go to so many doctors.

This group also tended to internalize the responsibility for any issues, placing blame on the individual themselves, and externalize the source to solve the issues. The strategies recommended by the group from the lodge included finding a new pharmacist or doctor, taking only pills that agree with the individual and having the pharmacy organize pills.

> ...And somebody that goes through more than one doctor, that's their own damn fault. You know, how dumb can you get? Unless you're doing it deliberately.

The other two groups, by contrast, found many community-level or society-level influences for medication problems but felt that one of the best strategies for improvement was being responsible for one's own self.

> I think we are responsible for ourselves and we should ask questions if we don't understand.

Finally, the group from the lodge did not find that the video was a valuable resource for the discussions. They felt that it did not contain any new information and that they would not remember the content after the discussion was through. Moreover, the video was likened to another educative video suggesting that the participants from this group thought that the video was to provide the education rather than the discussion about the video providing the education.

Effectiveness of Questions

There were three questions in particular that were difficult for all of the participants to answer. Specifically, the difficult questions included 'what were the psychological influences on the medication-taking process', 'what were the cultural influences on the medication taking process' and 'what were the political influences on the medication taking process'. These problems may have risen because the participants did not understand exactly what psychological or cultural meant in this situation or did not understand how either of them would influence the medication-taking process. Eventually, after many prompts, appropriate suggestions were made for all topics. Interestingly, discussions of psychological influences brought up many emotions involved in the medication-taking process such as being embarrassed.

The following quotations are examples of the investigator's questions regarding cultural influences with one focus group. It was not until the last rephrasing, using more specificity, that the participants in this group were able to discuss cultural influences.

> What do you think are some of the cultural influences? So maybe the morals, beliefs, how you're raised, things that you are exposed to. How do you think that effects people with their medications?
>
> One of the things that was brought up before is that we're raised not to ask questions...do any of you feel that way?
>
> What about the way we're raised? How do think that plays a part in how we take medications?

Understanding the Purpose of the Project

The general comments made regarding the process of watching a video suggested that the participants understood the purpose of the project and were curious about the overall process such as 'where the results will go'. Many of the participants seemed to understand that the purpose of the project was to uncover the underlying issues influencing the medication-taking process and use this knowledge to generate strategies. However, one individual from each of two different groups made comments suggesting they did not understand this purpose. Other participants quickly informed these individuals.

> What I would be afraid of is that this goes back to a group of people who are mentally alert like you are, young, younger than certainly we are. And they would say 'you should do this'...And don't forget, we aren't like that... be sure they don't fall into that trap of just telling us what we should do. Well, we know how to do things better than we are doing them, so good luck.
> But that is what this is about!

A further indication that the participants did understand the purpose of the project was the recommendation that the five-stage process should include things healthcare professionals can do to improve the medication-taking process.

> So we need another category; things the individuals can do, things the community can do, things that healthcare professionals can do…

There was interest in how the comments from the discussion would get to those who needed the information suggesting that the participants understood that the entire process involved more than recommending strategies in the focus groups.

> You know, there is something bothering me about this whole operation, how do our comments we give here, get back to the druggists who try to organize all of this? Or to the doctors, or both?

The Five-Stage Process

When asked specifically about using the video and the five-stage process, the participants agreed that they had not previously thought about medication-taking problems on different levels such as social or economic influences. The two community groups, i.e., not living in a seniors lodge, felt that the process was valuable and was effective at bringing in different perspectives. These two groups felt that the process was thought-provoking, that it 'jelled' ideas in their minds and was an overall positive experience.

> It's good to bring up focus points because then you think about that particular situation. Otherwise, I think a lot of those situations would be missed completely.

The participants from the seniors lodge did not find the five-stage process valuable and actually felt that it was dull.

> That's exactly what we were talking about. It was very boring.

Transitions

Participants offered personal experiences relating to the medication-taking process throughout the entire discussion. Often, the comment was related to the topic the group was discussing but sometimes it was not. There were instances where discussions of the

video directly triggered similar personal experiences of the participants, within the same 'thought'. These instances were coded as 'transitions' as the participants made a transition from the situations presented in the video to an experience in their own lives. These transitions demonstrated that the video was effective at instigating discussion about personal experiences and that the situations presented in the video were familiar to participants. A majority of the 'transitions' were in reference to interactions with health care professionals.

> Betty (a video character), she saw more than one doctor for her problems. Quite often I think you'll find that if... I have a very good pharmacist, you know I go to him. I ... only go to one other family doctor... but I may have to go to a specialist.
>
> Well, people don't take their medications, they take it lightly. It is very sad for us, sometimes I skip my medications.
>
> I wonder if [the video characters] don't feel intimidated to take a problem to the doctor or pharmacist. It is often easy to feel stupid.

These transitions were also made in reference to pharmacists checking for medication conflicts, individuals having to see specialists, doctors 'guessing' appropriate prescriptions, seniors sharing medications as well as doctors being too busy to provide proper care for patients or to counsel on over-the-counter medications.

Additions to Empowerment Education

The participants emphasized two key concepts that they felt should be added to the categories of strategies. One participant felt that community-level and professional-level strategies should be included along with the previously established categories of individual and family-level influences. This suggestion emphasized the relevance of health care professionals and the role of community in the medication-taking practices of seniors.

> ...We need another category: things the individual can do, things the community can do and things the health care professionals can do.

Other Applications of the Process

Overall, the participants felt that this empowerment education process could be used to discuss financial or health issues, specifically diet, exercise and hospital survival. It was specified that whatever the topic, the discussion would have to be contained such as the discussion on medication issues.

> This [discussion] was fairly defined...discussion though, I think it would have to be similarly boxed somehow.

The Video

Overall, the findings indicate that the video was familiar to participants, provided a basis for discussion and was generally a valuable tool that facilitated the dialogue and listening processes. Interestingly, the video content was analyzed during the dialogue process suggesting that it was thought-provoking in itself.

Evidence that the video was familiar to participants was demonstrated as participants personally shared many of the same experiences as were presented in the video. For example, participants had family who took too many medications, visited more than one doctor who did not communicate with each other, were aware of people sharing information about their medications and who shopped around for the best price for their medications.

> Well where I come from there was one lady over there she went to more than one doctor. I don't know how many pills she was taking. She had all kinds...

> Well even in treatments when we were sick a couple of years ago, they said 'I'll get in touch with your family doctor' ... and ten days later he hadn't heard from the other fellow.

> Yes, she said 'try [the medication] out and let me know if it works and I'll try one'.

> Each pill cost me something like $2 a pill and I needed a fair amount of them. I did shop around, I did.

The participants felt that although they did share some experiences with the characters in the video, they could not relate to characters' situation overall. This may be because the video characters displayed numerous problems whereas the participants may personally only have one or two.

> I don't think it is easy for us to say what we would do ... we are not at that point yet and so we cannot really possibly. Maybe in five years I might tell you what is wrong.

It was also evident that the video provided a basis for the discussion. The participants discussed topics including visiting more than one doctor, not respecting medications, family involvement, small printing on the labels, seniors recommending medications to one another and not being able to open pill containers, all of which were presented in the video.

> And I know that with my mother when we used to take her out of the nursing home for a couple of days...and my sister and I used to say...ok, which one is going to be responsible this time

> Yes, yes she said, try [the medication] out and let me know if it works, and I'll try one...

> The caps aren't just child proof, their adult proof!

The two community groups generally considered the video a valuable resource for the discussion. They felt that the video provided a good 'jumping off' point for discussion, that it helped to get their minds in the right direction and that it was reassuring that the participants did not have to talk about themselves. Further, the participants felt that length of the video was very appropriate and that 'shorter is definitely better'.

> The video is reassuring in the sense that it sent out the message that no, I don't have to talk about myself, I can talk about somebody else...

> I agree... short is good. It probably could have gone four minutes instead of what it was... the mention of a video, and it's oh my god!

The participants from the lodge did not seem to find the video helpful. These participants viewed that video as an educational tool in itself, as opposed to a basis for discussion and as such they expressed that they did not learn new information from it. Furthering this point, the group likened the video to another educational video to which they had been exposed. They did not feel they would remember the content of the video beyond the discussion session.

> And another illustration, a few years ago, Alberta Health, I guess was in on it, a program 'Steady as you Go', and they gave people... this video which included exercising ...how to fall, how not to fall. And the idea was that you would review it every once in a while and I doubt if anybody has ever taken a look at it since they finished the program.

> Now, while you're watching it, you'll probably form a lot of opinions, but how many of them you retain, I don't know.

> Yes, I agree. I don't think it lasts any longer than the moment.

A participant from the lodge commented, with a negative connotation, that the video was 'familiar'. This is interesting, as a major characteristic of a video, or code, is that the code should be familiar to participants.

> It just sounded all so familiar.

Throughout the discussions the participants analyzed the content of the video as well as the characters' situation indicating that it was thought-provoking and engaging. For example, the actresses in the video made an error when discussing the cost of medications, which was pointed out by each group of participants.

The role of characters and their situations provided for interesting discussions. For example, participants were curious whether or not the characters were satisfied with

family assistance, if they only spoke so freely because they were in a non-threatening environment and that the characters could not seem to get out of their situations.

> Her daughter, one mentioned her daughter was worried about it and had spoken to the pharmacist, but I don't know whether she really got that much satisfaction from the way she talked.
>
> But I think this problem is a lot bigger. I think these two ladies, for example...they'll just talk to whoever...this person is non-threatening right, it was just another lady and she could communicate all her woes to that lady...
>
> But you see, they probably can't get themselves out of it.
> That's right they need someone to jolt...
> Push them.

An interesting discussion arose regarding the video characters' sex. The participants of one group, which included two men, did not think that men would ever have the discussion demonstrated by the two ladies in the video. This topic instigated a discussion around social roles and demonstrated the effectiveness of the video to instigate discussions beyond those planned.

> Does any of this apply to men...I was reading through, I have no big firm opinions, seeing I am alone...well you know, they have a different opinion to all this.
>
> I can't imagine the same film with two men talking.
>
> ...Women might talk more to each other about their medication than men do, is that a possible difference?
>
> I mean [women] talk more period...
>
> Well, I always think doctors pay more attention to men.

Listening

Listening, the first criterion in the empowerment education process, was not included in the original design of this project. Listening did however occur throughout the dialogue process as the participants shared their personal influences, which were

incorporated into the curriculum during the process. Examples of these personal experiences are included throughout the 'Critical Thinking' section that follows.

Critical Thinking

The second criterion of an empowerment education approach, following listening, is that the participants engage in group dialogue with the purpose of critical thinking, or to gain an understanding of the social, economic, physical, cultural and political influences underlying the medication-taking issues. It is also important that emotions about the issues are elicited and incorporated into the process. The five-stage questioning method was used in conjunction with the video to promote critical thinking.

The findings that demonstrate the dialogue process are presented with respect to the underlying causes of medication-taking issues including feelings, social, psychological, economic, physical, cultural and political. Individual, family and system-level influences are also presented. These influences are reported as concepts that either relate directly to the video or as experiences from the participants' own lives. In order for a concept to be classified as relating to the video it must have either stemmed from a situation presented in the video or directly comment on the video characters or their situation. Personal experiences included any comments or examples that the participants provided from their own lives including situations of their friends and family that were not instigated by the video. This distinction was made to elucidate the value of the video for providing curriculum for discussion as well as to demonstrate its effectiveness in initiating dialogue about the participants' own lives. Major themes that emerged as underlying issues during critical thinking included the poor rapport with professionals, the high and uncontrollable cost of medications and unsupportive family circumstances.

Feelings

Discussion prompted by the video.

The five-stage questioning process had the participants identify feelings that the video characters may have been experiencing due to their situations. In general, these feelings were more negative in nature than were feelings participants had about their own personal situations, which may have been a result of the video presenting a problematic situation without a solution. The video characters' emotions that were identified by the participants included 'frustrated', 'worried', 'intimidated' and 'hopeless'.

> I wonder if they don't just feel intimidated to take the problem to a pharmacist or doctor.

> [Seniors] sort of just giving up, throwing up their hands and saying lets just go with the flow.

Participants also suggested that the characters were 'frustrated', specifically with the high cost of medications.

> The cost of drugs for one thing. You get frustrated because the cost of drugs is so expensive.

One participant suggested that medications that are advertised directly to consumers build up false hope that is eliminated when consumers discover they can't afford the high cost of new medications.

> ...Cause it looks good, and in fact it is. But they don't give you the nitty gritty. So you get your hopes built up for nothing. You find out this would be nice, but I can't get it on this budget.

The participants identified emotions that indicated a lack or power on behalf of the video characters such as 'helpless', 'overwhelmed' and 'resignation'.

> But then there are some people who don't have that kind of confidence either and they have no idea...they just get totally boggled down in their minds because they don't know where to begin.

Personal experiences shared by participants.

The personal feelings shared by participants with respect to their own lives exhibited some negative feelings indicating a lack of power such as 'embarrassed', 'regret', 'annoyed', 'guilty', 'sad' and 'confused'.

I have to take inhalers, and that's embarrassing.

[Medications] are so confusing.

The participants did however share positive emotions that had not been associated with the characters in the video. The participants felt 'fortunate', 'thankful' and 'hopeful' about their medications and the medication-taking process.

...A lot of them might have lived a lot longer had they had the medications that we are fortunate enough to have.

Well I'm thankful they have medication to keep us going.

The only indifferent emotions experienced in the participants own lives had to do with the interactions with doctors, and 'not bothering' to speak-up and be heard.

Sometimes...you can't be bothered.

Sometimes they just talk over you.

Summary of feelings.

Discussions around the feelings associated with medication-taking provided an excellent foundation for the remaining discussion. The participants had to put themselves in the place of the video characters to imagine how they would feel in the same situation. This facilitated future discussions around personal issues as participants were prepared to think of their own situations. 'Hopelessness', indicating an absence of power appeared throughout the discussion, particularly with respect to the health care system.

Social Influences on the Medication-Taking Process

Discussions prompted by the video.

Discussions about social issues illustrated in the video brought up the importance of having good rapport with a doctor, a topic that the participants also had experienced in their own lives. Social issues unique to the video included the influence of advertising, social expectations placed on seniors, sharing medications and advice with friends, the presence of homes and lodges and the positive influence of technology. These issues were not discussed as examples from the participants' own lives. The results from the discussion of social issues provide an example of how the five-stage questioning process, in conjunction with the video, stimulated a more comprehensive discussion than discussion alone.

As an example of the influence of rapport with professionals, the participants felt that there has been shift over time in the way that seniors viewed doctors allowing to ask more questions now than in the past.

> Like one time the doctor would say "you take such and such" and his word was gospel, I mean, you didn't question his word. Oh, my, no. But people are starting to question things now, more than they used to.

The participants also mentioned that a patient's rapport with a health care professional could influence how much information they are willing to share.

> I think people...I think they're reluctant to tell their doctor, pharmacist they're on [natural remedies]. Say look it, I'm trying this out, what do you think?

Many of the participants commented on the influences of advertising, particularly the ability of advertisers to market directly to consumers and build up hope by not providing all of the necessary information. Participants were often disappointed when they discovered the actual cost of the medications.

It sounds so good, you want to take it to make you feel better.

...But it looked good in the paper. The advertising takes one instance and they exaggerate it. Makes it difficult, cause people think, oh we've finally got a cure. After they ask their doctor and find out what the price is...

The seniors felt that social expectations that were placed on them influenced the medication-taking process. The participants suggested that older people are taught not to ask questions and therefore may miss out on important information.

I think it is those that are seventy and up that are taught not ask questions. It's changing but they need to be given permission to ask a question.

Further, participants felt that there is too much pressure for people to be independent and this prevents individuals from giving or accepting help.

I think we are so intent on being independent and private, aren't we, that it is very difficult to be reach out or be reached.

Homes and lodges were thought to influence the medication-taking process as they create a situation that makes it easy for families not to personally provide care for aging relatives. Lodges were thought to be even more detrimental if the older adults were moved to care facilities that were not located in their smaller, under-resourced, home communities.

The video initiated discussions about the benefits of technology, specifically the Internet providing information not readily available through other means. This was empowering to the seniors as they could inform themselves completely before making a decision.

The advertising takes one instance and they exaggerate it... people think...we've finally got a cure...then they find out what the price is...Well, on the Net, you can pull all that information out.

Personal experiences shared by participants.

Discussion of the social influences on the medication-taking process brought up personal experiences including rapport with professionals, as did the video, lifestyle and image. The participants also mentioned that environmental issues such as glasses not being available in washrooms at restaurants influenced the process. Participants discussed the positive influence friends can have by encouraging individuals to take better care of themselves and the demonstrated the positive influence of media. Finally, the participants discussed the influences of living in a 'me' society.

Participants felt that seniors are often too timid to question their doctor and they need to find the courage to address issues that concern them.

> This again relates back to our rapport with our doctor and the courage to say, is there some other way?

The participants also gave examples of keeping information from doctors because they were concerned about the doctor's response.

> And when [my friend] goes to the doctor, I say 'does he know you're taking all these medications?' 'No, I don't tell him'.
> Why doesn't she tell him?
> Because he will think she is crazy.

> Or [doctors] will think I'm really ignorant, so [seniors] will not ask the questions...

The participants communicated that many seniors feel that the professionals know best and therefore will not question them. Further, there was a general feeling that there is growing gap between seniors and professionals.

> There is a gap and maybe it is a growing gap between professionals and the seniors...there is kind of then this cultural gap between seniors and professionals who speak, not that kind of language.

Personal lifestyle as a social influence was discussed only in the context of personal experiences and was not mentioned with respect to the characters in the video. Specific issues included going out of the home, living with children and stress.

> Sometimes when I go out for dinner, I don't like to take [my pills] out in public. And when I get home, it's maybe nine or ten o'clock or sometimes later. And then they have some medications I take before I go to bed, so I don't take them at all...

> I had this problem with my hands; [the pill bottles] had those kiddy-proofs. But I don't have any kiddies around my house, so I'm lucky... Well now most of mine have got those snap-offs.

> Well one thing is that a lot of [medication-taking] depends on your lifestyle with stress.

In addition, participants wished they had started practising health-enhancing behaviors earlier in their lives and mentioned getting careless as they age.

> ...I take Calcium pills... and I should have started taking these things early then I wouldn't have had that problem now.

Image influenced the medication-taking process through both self-perception as well as maintaining an image in public. Image was another topic only discussed with respect to the participants' own lives and not in the context of the video.

> I think here again it relates back to the fact of what you feel about yourself, like if you are continually hiding a condition or whatever from all those people around you, and you are in a very bad space personally

> Ya, but I think it's with me, it would be sort of a personal thing. 'Oh, that guy, you know, he's a sicko.

The groups demonstrated the effectiveness of media to influence the medication-taking process in their own lives. Each of the groups incorporated information they had learned from the media into the discussions. This is demonstrated in the following dialogue between two participants.

> There's a pharmacy that will cut them in half for you.

Yeah, that was just on the news today.

The groups discussed the change in community values and the influence that this has on the medication-taking process and on the health and independence of seniors.

> I think that also right now that there is a complete change in the way that people react to other people and, where as at one time people were much more concerned about your neighbor or whatever...I don't see that. The society isn't that way at all, it is much more of a 'me' society.

In addition, the participants did not approve of seniors sharing medication information with each other, although some did have personal examples of this. The participants agreed that those without friends have an increased risk to their health simply by not having the personal support. Technology was seen as a positive social influence as the Internet increases their access to information. A downfall was that not all seniors had access to the Internet.

Summary of social influences.

In summation, the video prompted discussion of social influences including rapport with professionals, influence of advertising, social expectations, presence of homes and lodges and technology. 'Rapport with professionals' is a common theme that emerges in many variations throughout the entire project. Further, the expectation of seniors to be independent becomes evident even in the participants of this project as they recommend strategies to maintain their independence. Personal experiences instigated discussions of social issues such as lifestyle and image, which were not discussed with respect to the video characters.

Psychological Influences on the Medication-Taking Process

Discussion prompted by the video.

The participants identified many psychological influences that the video characters may have experienced but did not mention any from their own lives. The participants felt that the video characters were unsure of themselves, that they were discouraged, depressed and may have been resigned to their situations. Each of these issues indicates a lack of power. Moreover, it was thought that the characters were just bored with their lives and that they feed off of each other's anxiety, suggesting a lack of confidence. The participants decided that the characters also felt 'uncared for'. Finally, participants felt that the characters may be unsure whether the medication is actually working which causes them to worry and may result in the character discontinuing their prescription.

> They're lonely. Not enough people love them, care about them.
>
> Some of them may not be sure the medication is helping them if they're generally not feeling well and this might lead to worrying about the effect of this and might also result in them not taking the medication...

Personal experiences shared by participants.

There was no data to support the participants' personal experiences regarding the psychological influences on the medication-taking process.

Economic Influences on the Medication-Taking Process

Discussion prompted by the video.

The video stimulated discussions regarding the economic influences on the medication-taking process. Issues relating to the video and to personal experiences both indicated that economic conditions take power away from seniors by decreasing access to needed medications. Specifically, video discussions revolved around the overall high

price of medications and the waste of money when prescriptions are ineffective. This high cost of medications was thought to result in seniors shopping around or else not taking the medications at all. The video stimulated dialogue pertaining to the waste of money associated with ineffective prescriptions and the corresponding benefit of samples.

> ...When he first gives you the whole prescription and I said, this is ridiculous, This is not working, I stopped taking it. And so the next time I went, he gave me samples... he said try these out for a week, if they're not giving you any gastro. stress, then get your prescription filled, not before that.

Personal experiences shared by participants.

Personal experiences of the economic influences on medication-taking revolved around insurance coverage and the inconsistent cost of medications.

> And I could have had a better [medication]... there is one that is covered by medi-care and then there is one that works faster, but it's sixty dollars a month, and its still not under the medi-care thing. So I'm taking the Dexetral because I can afford that.

> The trouble is, if you go to just one [pharmacist], but you know that at another pharmacist you can get it for much less, and you're on tight budget, you'll go to that other drug store.

The issue of 'shopping around' for medications was closely tied to both cost and convenience.

> I would pay a little bit more if it was at Safeway.

There was a consensus that the manufacturers of the medications directly controlled the prices and, as a result, many of the influences on the individual senior. The participants felt that the drug manufacturers took advantage of consumers.

> ...Some collusion, if you don't want to call it collusion, why the big drug manufacturers are taking us for a ride.

The participants empathized with seniors that could not afford their medications but could not offer suggestions for improving their situation.

> But a lot of people would just quit taking a medication if they can't afford it, and if you can afford it you are fortunate. But if you are on just a minimal income, a fixed income...you're in big trouble right now if you have to take a lot of medication.

Summary of economic influences.

The economic influences on the medication-taking practices of seniors generally include the high cost of medications and the inconsistent coverage by medication insurance. Discussion of these economic influences was closely linked to policy level issues such as who is covered by insurance and regulation of the mark-up on medications.

Physical Influences on the Medication-Taking Process

Discussion prompted by the video.

Issues were categorized as physical influences if they referred to physical limitations of the body such as vision or dexterity problems. The video prompted little discussion about the physical influences on the medication-taking process other than mental changes due to poor medication or onset of disease. The participants commented on general physical changes that can make medication-taking difficult.

> Maybe it's the medication that they're on. Maybe not as sharp or as clear, slow thinking.

> They were talking on TV about prescription, like a pellet, too much for somebody, so they have to cut it...and that is very hard for some people...

Personal experiences shared by participants.

The participants shared many personal experiences about physical influences on the medication-taking process. Some of these influences included arthritis, allergies, general physiologic changes due to aging and genetic predisposition. Poor eyesight combined

with inappropriate medication labels was a major concern and point of contention with participants from all three groups. These influences resulted in alterations in the medication regime, which was instigated by the individual or by the health care professional. Mental changes were attributed to effects of a medication or the onset of disease. Finally, participants acknowledged that medications were helping people to live longer.

> And it turned out that after fifteen years, [the medication] just simply stopped working for me so they had to put me on a different prescription.
>
> Well, I tell my doctor I'm allergic to so many medications. So I said please give me a small dose...and then I can get a refill...no, they still give me thirty...
>
> But we also have a genetic...quite a low genetic factor, which is probably why my blood pressure is well controlled on medication.
>
> I can't see those instructions on the pills. How could the person who doesn't see so well recognize the pill in the box?

Cultural Influences on the Medication-Taking Process

Overall, a discussion of cultural influences on the medication-taking practices of seniors was difficult to generate. The question required many prompts and suggestions by the researcher. Surprisingly, once the discussions began many varied suggestions were instigated. Discussions of cultural issues demonstrated that the participants had an interest in, and a respect for, a natural approach to life.

Discussion prompted by the video.

The video triggered a discussion of cultural influences that included topics of western influences, natural remedies, spirituality and family.

> Speaking from an oriental point of view, where I grew up and was born in the Orient, ah, western countries such as North America, they're very highly advanced technologically, and my experience was, we're forgetting about the very basic natural approaches to situations...

> In the hospital, at one time you weren't allowed to mention the word religion or anything spiritual. They have forgotten that part of life, but it is coming back.
>
> I think if you are coming from a pill popping family, you're probably going to be...be easily influenced. I think if you come from a family where medication has been treated with a lot of respect, that this will probably carry through.

Personal experiences shared by participants.

Personal experiences regarding the influence of culture on the medication-taking process instigated discussion of family values, specifically medication appropriateness. Participants felt that individuals with families that relied on medications were more prone to use medications in general. A large proportion of the discussions was centered on younger people being busier and more socially cautious. This situation was compared to the living styles of the participants when they were younger and when people took time to look after each other.

> Just about everyone seems to have a job now a days and life seems to be terribly busy for young ones.
> See that's the cultural change.
>
> But do you think it's a generation thing that they're more cautious, the young ones. We're more used to people being nice and not harming you or not having anything against you whereas the young ones are in a different world?

Interestingly, participants categorized professionals' choice of language as a cultural influence. The discussions of culture and cultural changes in society instigated the unexpected topic of dying in our western society and that is generally regarded as 'unnatural'.

> There is kind of then this cultural gap between seniors and professional who speak, not that kind of language.
>
> And when [a natural remedy] runs out then maybe it's just time that you [go]. We have this concept that dying is just the worst thing on earth. You know, when my

> grandfather died he was kept at home, you know, they had an all-night vigil for him...
>
> My husband died at home. He asked me if he could die at home and I said yes he could because we had such a great time together and I felt I owed it to him, you know, to help him. And it was a very peaceful thing because I could sit with him on the bed and hold him in my arms and go over all the good things we had. And he just said to me, can I go now, and that was it.

Summary of cultural influences.

The cultural influences on the medication-taking practices of seniors included the broad topics of natural living, western influences, spirituality, family influences and family values. These demonstrate how expansive the influences can be, including areas that are often not addressed in medication counseling that uses a behavioral approach.

Political Influences on the Medication-Taking Process

Although not given as a direct response to this question, political issues were closely tied to economic influences identified above. It was clear that participants felt they had no control over economic issues and that government must be involved to improve the current economic conditions influencing seniors and their medications. The video triggered minimal discussion regarding political influences on the medication-taking process and included only government policy and benefits for seniors.

> ...in the last ten years, and they have reduced supplements for seniors. And that's government policy... and seniors have felt it more than others because of the coverage they had previously.

Personal experiences shared by participants.

Political influences on the medication-taking process were discussed in more depth when participants were sharing personal experiences than when referring to the video. Political topics included policy on generic drugs, providing more drug-coverage assistance for those who cannot afford the medications and the respective wastage of

money on less important things. The long waiting period for new medications to be covered by Provincial drug insurance was seen as both a positive, protective feature as well as negative, inhibiting feature.

> All they will pay for is the generic drug as long as it's on the approved list. If there is no generic equivalent, then they will give you the regular.

> Because the student I was speaking of just can't afford the medication...he's really sick.

> I mean Alberta's supposed to be a rich province and it wastes a lot of money. At least I think the government wastes a lot of money it could shovel into something like that.

Individual-Level Influences on the Medication-Taking Process

The participants were asked to identify what is, or is not, happening at the individual-level to influence the issues identified in the video. This question was answered easily but did not generate substantial new information as the participants had discussed this topic previously in question one of the focus group, 'issues in the video'. This area primarily addressed strategies at the individual-level that would improve the medication-taking process. These strategies are presented below in the section 'Strategies for Action'. Throughout the discussion, the participants reflected on what they did, or should have done when they were younger.

> You know, when we were younger and we were not on pills, you feel much better. You know, all those pills never make you feel that way.

> My contention is why didn't I do this a younger person?

Family- Level Influences on the Medication-Taking Process

Family issues generally revolved around seniors' inability to rely on their children for support, which was contrary to their personal experiences of assisting family. Response

to this present-day situation included relying more on themselves as well as friends and neighbors.

Discussion prompted by the video.

The only discussion about family-level influences on the medication-taking process that was prompted by the video was that the character did not seem to get much satisfaction from her daughter talking to the pharmacist and may have better results if they were to go together. Again, this brought up the issues of people being busy with work and that it may be difficult to find time when mother and daughter could go together.

Personal experiences shared by participants.

On a personal level, discussions about family-level influences on the medication-taking process were immediately answered with comments that seniors cannot rely on family for assistance, and must be responsible for themselves.

> I have this little saying. You give your children post-secondary education and you say good-bye because they are scattered. Your family is often scattered all across Canada and into the United States.
>
> And they're so busy that, out of the home working and what not.
>
> And there is nobody to take that concern...that a child would feel for an aging parent.
>
> You have to live on your own.

Contrary to their own unsupportive children, participants gave many examples of situations when they had provided support for a family member and where many families had to sacrifice in order to provide care for an aging relative.

> Well, families are too busy to help out, but on the other hand, I've heard of cases where someone has had to give up their career to come home and look after parents.

Personal experiences also included times when family members indirectly influenced the medication-taking process. For example, having children present in the house influenced the medications' location and container. Additionally, contrasting views of family members influenced beliefs and practices with respect to taking medications as demonstrated below by the dialogue between two participants.

> Generally, my wife, I keep telling her...don't take so many medications... You have to take them when he's not looking.

Summary of family-level influences.

The most prevalent family-level influence on the medication-taking process was that seniors cannot rely on their children for support, which is contrary to the way they grew up. Additionally, family can influence the medication-taking process by effecting the way medications are organized or through contrasting beliefs. Overall, it appears that the participants were interested in having input and interest of their children but realized that it was unlikely due to lifestyle demands on the children.

System Influences on the Medication-Taking Process

Discussion prompted by the video.

The participants were asked to identify what is, or is not, happening at the system-level to influence the issues identified in the video. 'The system' referred to health care professionals and their practices as well as the overall health care system. Generally, the system influences included poor practices and attitudes of doctors as well as poor organization and communication in the health care system.

The video prompted discussions about patients having more than one doctor, that it appears that the cost of medication is increased once they are covered by insurance and that doctors are too busy to learn about and counsel on over-the-counter medications.

Personal experiences shared by participants.

The participants shared many personal experiences in which the system influenced their medication-taking practices. These were generally categorized as professional practices, medication containers and the general system.

With respect to physician practices, issues included doctors unexpectedly retiring and the corresponding problem that doctors often don't want old people as new patients. Further, participants felt that they often do not have the full attention of the doctors, that there is a long wait for appointments, that doctors are too busy to answer questions, that doctors do not give seniors as much information as they would give younger patients and that patients generally do not feel 'cared for' by physicians.

> Like I had a physician for a long time as well. My husband and I did. He retired and ever since then, nobody wants old people.

> I think, I agree. That is, I think that is a problem for seniors in that ah, it is sometimes difficult to know whether one has the full attention of the doctor. It seems somewhat superficial on, ah, occasion...

A dominant theme throughout the entire project was the practice of physicians giving out large doses which is often wasted due to ineffectiveness of the medication or allergic reactions in the patients. In response to this, many individuals shared their experiences receiving samples from doctors to try a medication before purchasing an entire prescription. Tying in with this, the participants felt that doctors often 'guessed' which drug to prescribe. It was suggested that physicians sometimes use pills as an easy solution instead of taking time to uncover a specific medical problem and that medication is given too often in general. Finally, participants felt that doctors used large words that they often could not understand.

> Exactly, and that's the problem, and I was thinking of people in homes and lodges and that that often time I'm sure that it is just as easy to give the person the pill and that they never really find out the condition of the patient whether that pill is really working for that person or not or whether they are having troubles from that pill.

With respect to medication containers, participants felt that the packages were often hard to open, that the caps were so difficult to remove that they should have their own instructions and that labels are overall very difficult to see. Specifically, the labels are printed in small font, with poor color and pharmacists often stick their label over the medication label.

> Those are easy, but some are a flat little pill and you have to bend the paper. And then they end up on the floor.
>
> The caps aren't just child proof, they're adult proof.
>
> You almost need instructions on how to get at them.

Comments on the general system included the poor continuity of care when an individual leaves the hospital, that women are not included in many drug studies and that seniors are not aware of the services that are available for them. Moreover, participants felt that the insurance coverage for new medications is slow and that home care services should be more responsive to the changing health conditions of their clients. One participant mentioned that if she has trouble on a weekend, a physician from the University clinic would visit her home, much to the disbelief of the other participants.

> And they didn't show, they didn't show, and it was Saturday, and we were starting to panic. My dressing was getting wetter and wetter, and so she phones my doctor, and nobody had come. She says I wasn't aware that your mother was home. I wasn't notified.
>
> And isn't it interesting that there are some studies done when you read about them, and they are talking about that they have studied this and it is only men had been included in the study, that women are not included in the study?

Summary of system-level influences.

Many of the system-level influences concerned professionals' attitudes toward seniors and the resulting diminished level of care provided to seniors. The system-level influences of large doses and over-use of pills is linked closely with the economic burden placed on seniors.

Summary of Critical Thinking

In summary, critical thinking was achieved during discussions by using the five-stage questioning method. This method prompted discussions regarding the underlying issues of the medication-taking process in seniors including social, economic and political influences, among others. Although it was possible to theoretically categorize these influences, many are interrelated. Three major themes emerged throughout the critical thinking component of this project and demonstrated that the influences are linked. The three major themes included the poor rapport with professionals, the high and controllable cost of medications and unsupportive family circumstances.

The theme of seniors having poor rapport with professionals has implications within several of the categories of underlying influences including feelings, social influences, system-level influences and economic influences. For example, the participants felt that sometimes they cannot be bothered to share information with professionals because the professional is often too busy to listen. Further, some seniors are too timid to ask questions of professionals or may feel that the professional will think that they are ignorant. At the system-level influence, the participants felt that the professionals' attitudes toward seniors was reflected in doctors giving out pills too often, not wanting seniors as new patients and not giving seniors their full attention or explaining things as

completely as they should. Finally, seniors that receive pills too often are sometimes presented with an economic burden when purchasing the medications.

The theme of high and uncontrollable costs of medications reflects feelings, economic influences, system-level influences and policy influences. For example, the high cost of medications resulted in seniors being frustrated and building up a false hope that a medication could help them, but the cost made treatment impossible. Further, the waste of medications due to physical changes and ineffective prescriptions was an economic burden to seniors. The high cost of medications caused the seniors to shop-around or not to purchase the medication at all. The participants also questioned the inconsistent coverage from medication insurance. Finally, the participants acknowledged that political involvement would be necessary to change the economic influences on medications.

The general theme of absence of family support stemmed from the participants acknowledging that they could not depend on family for support, even though they felt this level of support would be the most effective. As a result, the participants emphasized using community support structures in the absence of family. Busy timelines and geography were given as reasons for the change in the family-level support that the seniors themselves practiced at a younger age. As a result, the participants agreed that seniors have to take care of themselves, as they cannot rely on family.

Participatory Nature of the Process

The third criterion of an empowerment education process is that it is participatory. The overall process did not demonstrate the participatory characteristics that were defined in the literature such as open problem naming and shared decision-making autonomy. There were however, many indicators throughout the dialogue process that

suggested participants felt comfortable sharing information and that they felt as though they were part of a group, which are important when attempting to encourage optimum participation in a project such as this. Based on the Webster's Dictionary (1991) definition of participation "state of being related to a larger whole", an indicator used in this project included being part of a whole. Based on the definition for participate, "to share in something", the indicators of relating to each other, questioning each other, seeking group support and encouraging each other were used. The literature also recommends that a true participatory process should be educative for all participants as well as the researcher. This was demonstrated as the participants taught each other about personal strategies and resources. Moreover, the participants communicated that the most effective discussions would be achieved by open and honest participation. Finally, the audit trail indicated that the researcher learned throughout the entire process.

'Being part of a whole' was demonstrated through the common use of the term 'we' to describe the many situations that the participants felt that they shared with the group. The 'we' referred to either the group of participants present in the focus group or to seniors in general.

> I mean it might not be an answer, but at least it gives us proper information so that we can get or give proper consideration to what it is that we're dealing with.
>
> I think we all do things like that.
>
> What can we do about the price? We as seniors get a discount but there are families that are on a limited income, and drugs are so expensive.

'Being part of a whole' was also demonstrated as participants linked themselves with specific groups such as ladies, all the people present, and seniors as a distinct group.

> I'm sure all of the ladies take Calcium.

> ...But all of us around the table here, I'm sure we'll agree, that people have taken medications in good faith...
>
> ...But if it is going to benefit the group as a whole, speak your mind...
>
> If the information was compiled with, you know, meeting with a group of seniors and talking to them...

'Relating to each other' was demonstrated as one participant agreed with another's comment and was able to relate the situation to their own life. This particular situation arose when discussing different topics including physician practices, samples of medications, over-the-counter medication, people in care homes, rapport with doctors, splitting pills and small print on medication bottles. The following disunited quotes from participants provide examples of 'relating to the whole'.

> I know exactly what you mean, I guess I'm lucky I have that rapport with the [doctor] I have now.
>
> Ya, ya I was on one like that too, but ...my pharmacist cracked them in half.
>
> Exactly, get out the magnifying glass to read it.

The participants felt comfortable 'questioning each other' which indicated that they did not rely solely on the researcher to facilitate discussion. This also suggests that the group was involved in, and followed, the discussions. On occasion, the participants would challenge or disagree with one another.

> So [the pill container] would have in it just the things you needed to take a particular day or time?
>
> And what about Centrum, how many of you take vitamins?
>
> Why would you wonder if it applied to men? Why would you wonder that?
>
> I don't think that is necessarily true, my sister lives in an apartment and has all her...

Participants looked to each other for support and encouraged each other suggesting they respected others in the group.

> He said stop them, you are taking too many pills. What do you think? Do you think it's...
>
> I don't think anyone other than my husband has said I am wonderful.
> We'll say it.

The participants reflected on the importance of being open and honest in the discussions for the purpose of helping others in the group.

> Well to be open and frank because some people are hesitant to speak their mind. But if it is going to benefit the group as a whole, speak your mind you know... and somebody might benefit by that

The process was educative for participants, as demonstrated as they taught each other about personal strategies and available resources.

> You get a friend to phone you, is that the idea?
>
> Do you realize that is how the Thalidomide thing got out of control, was by giving samples?
>
> I don't know if anyone around the table gets the magazine...it comes out every two months, it's called CARP, C-A-R-P. Anybody heard of that?

The audit trail provided a record of the researcher's thought process and decision points throughout the entire project. The information from the audit trail provided insight into alterations of the original method and demonstrates many areas where the researcher learned about recruitment, facilitation, the questioning process and group responses to the empowerment education process, reinforcing that the process was educative.

Originally, an advertisement was placed in the Edmonton Examiner to recruit members from the community who were not already associated with a community group. Unfortunately, this process only prompted one response and it was not possible to make

contact with this individual. Further, recruitment efforts at a local seniors' organization failed because another, seemingly similar, study had recently recruited there. Participation in the project appeared to be intimidating yet intriguing because a few individuals volunteered to 'just listen'.

The researcher also learned about facilitating a project using an empowerment education approach. In order to assure that the underlying influences such as psychological or social were identified for the purpose of creating strategies and not just for answering the questions, the researcher continually related the influence to a specific issue identified in the first question. For example, when discussing economic influences on the medication-taking process, the researcher would specifically ask how that related to seniors taking too many medications. Additionally, the issue of 'too many doctors' as presented in the video stood out in the minds of the participants and consequently, the researcher had to highlight other issues to create a comprehensive discussion. Finally, the researcher realized the importance of having each participant introduce himself or herself at the beginning of the discussion to break the ice.

The audit trail revealed interesting changes in the researcher's questioning process. For example, Question 3 'How does the scenario in the video relate to your own lives' was eventually dropped from the questioning process because the participants automatically related the situation to their own lives and the question would have been redundant. The researcher was concerned that asking the question would break the momentum of the discussion. In addition, the researcher did not use 'we' in Question 5 'What can we do about this problem in our own lives' and instead used 'What can be done about these problems'. There were a few reasons for this. Firstly, the participants

were not going to take action with this project and the wording of the question may have confused them and concerned them about their commitments. Secondly, although the participants related to many of the problems in the video, they acknowledged that they did relate to the overall situation and therefore '...this problem in our own lives' did not apply. Finally '...our own lives' suggested that the researcher was part of the group participating in the project and consequently shares the same problems as the group. The question may have insulted the participants by minimizing their situations or by suggesting the researcher really understood their situations.

The final reflection on the overall project involved adding a third group of participants part of the way through the project. This action was taken after the first focus group with participants from the lodge. The researcher became concerned about quality of responses and the group's ability to demonstrate the empowerment education process. In response to this concern, a third group was recruited and efforts were made to assure that it was a community group with characteristics similar to the first community group. Upon reflection, the group from the lodge has provided interesting information about the way that different groups may respond to the empowerment education process.

Although the overall project did not fully meet the criterion of being participatory, there were many indicators in the discussion suggesting that the empowerment education process was participatory. Specifically, 'being part of a whole', 'relating to each other', 'questioning each other', 'seeking group support' and 'encouraging each other' were used to demonstrate participants were comfortable sharing information and that they were part of a whole. The educative quality of the process was demonstrated as participants taught each other about personal strategies and resources. The educative quality was further

demonstrated in the researcher's thoughts from the audit trail. Finally, the participants suggested that the most effective discussions would be achieved by open and honest participation.

An Empowering Process

The fourth criterion in the empowerment education process is that the process is empowering. There is no evidence in the data that indicates the participants were empowered by participating in this process, i.e., gained control over their medication-taking issues. However, many power issues were discussed as participants identified areas in which they were powerless and, as a group, recommended ways seniors could gain power. Although not measured, this process may have assisted some participants to gain control over some medication-related issues.

Power issues generally revolved around control over a situation. A lack of power was demonstrated by an individual's own actions or having lesser power in a relationship.

> [The senior] would actually have a shopping bag full of medication. I mean it apparently gets quite out of control...

> Hoping, grasping for straws. What am I to do to keep my cholesterol low or blood pressure low and you follow these...so-called professionals in good faith.

> My mother wouldn't have questioned [the doctor]. Because [doctors] were educated. I'm only grade eight you know, they know what they are doing...

The participants identified situations where the system made them feel as though they had no control.

> [A specialist] is looking after a different part of her body and so she's, well, she's falling victim to the situation that is so prevalent in the medical profession now.

> The pills are in a little package and I don't know what pills they are anymore, I just take em...I don't know how many pills I'm taking now, and I don't really care.

My whole day is tied to that ruddy pill box.

Moreover, general changes in the body that occurred due to aging presented circumstances that the participants did not have control over.

But you can't avoid these things happening to you as you get older.

Where would we be without pills, but you never...as you get old, everybody gets pills.

Well there are some things they can't help when you're old.

Participants felt that they could gain power in a situation most effectively by asking questions and provided many examples of this from their personal lives.

Again it relates back to our rapport with our doctor and our courage to say 'is there some other way?'

I said to the doctor, doctor is it possible for me to take one pill that will cover both situations. He looked at me and said yeah.

...So he finally went to the doctor and the pharmacist and they compromised, they set up a much better system for him now.

Its our job to say why are you doing this, but what is this supposed to do?

The participants also felt that they would be more comfortable with professionals, indicating a greater balance of power, if the professionals showed greater interest in the patients.

Certainly in my life, if I think the doctor is taking an interest in me as an individual...talk to me about my family...my interests...I respond to him much better.

It's a pleasure meeting both individual pharmacists, because there is good rapport between them and us you know.

A major theme throughout the entire discussion was that the participants felt each individual had to be responsible and take care of themselves. This resulted from discussions of distant families, poor care by professionals and gaps in the system.

Because you're your own best caregiver.

You have to live on your own.

You have to take responsibility for yourself and hope and pray that you are strong enough to do that.

The best person to care for you, is you.

So do you mean seniors should take more responsibility for themselves?
They not only should, I think we have to. Otherwise the system will kill us...really it will.

Community empowerment principles such as social support, community participation and community competence were demonstrated throughout the discussion. Many examples of these principles are strategies that would improve the medication-taking process and, as such, are also presented in the section 'Strategies for Action'. Social support was recommended as a strategy for improving the medication-taking process primarily for individuals that cannot act on their own behalf for reasons of illness or lack of confidence. The idea of an 'advocate' was suggested as a mutually beneficial situation that could be established between two seniors. This advocate could act on behalf of an individual or simply lend confidence with their presence. This concept increases the power that an individual has in an otherwise un-empowering situation. The participants felt the advocate should be family, but if family was not available then a trusted friend or neighbor could fill the role.

That again is friends and neighbors that take over.

Further to the idea of having an advocate was the suggestion of a 'phone buddy'. In this situation two seniors would form a relationship of equal power and contact each other once each day.

> I've often said if my family phones, they will think oh, she's off somewhere, or out somewhere if I don't answer the phone. So I have a friend, and I call between nine and nine-thirty. If I don't [call], she calls me...to see if I'm o.k.

The principle of community participation was also demonstrated in the discussions. At the end of one of the discussions, a participant asked for volunteers to help disseminate information about medication reviews at the upcoming flu clinic. The group showed interest, and some of the participants volunteered. Additionally, another of the groups volunteered at a different flu clinic and offered to hand-out printed information that evolved from this project. After the discussions, each of the three groups invited the researcher back to talk about the project.

> Even if there was something written that we could hand out because we do give out, as everybody registers, we give them a little bit of information about the flu clinics...

Community competence was illustrated when individuals recommended existing community organizations and services to improve the medication-taking process. Participants suggested individuals without confidence to ask questions in person could rely on the 'Seniors Help Line' for information. Participants also suggested that Health Centres, Seniors Centres, churches, the Lamplighter Program, among others could provide the much-needed assistance for seniors. The participants suggested groups such as their own to provide support for individuals in the community.

> Most churches have missionary outreach. Speakers come in.

> Seniors centres are probably even better than churches because I think they cover even a wider part of society.

Overall, there were no indicators that the participants were empowered by participating in the process. The process did demonstrate that power issues were addressed and that they recommended strategies to gain power in these situations.

Individual-level empowerment was not measured in this project albeit the participants did explore the social and political environment that influences the medication-taking process. The empowerment education process also demonstrated the community empowerment principles of social support, community participation and community competence.

Strategies for Action

The participants recommended many strategies as a result of identifying the many underlying influences on the medication-taking process. These strategies were categorized into 'individual practices', 'family practices', 'professional practices', 'community practices' and 'policy changes'. The group also made recommendations on the format that the information should take as well as where the information should be directed. Consistent with the five-stage process, the strategies recommended were often the result of previous discussions. As such, many of the strategies reflect the underlying issues that affect seniors' medication-taking practices. It is important to note that some of the individual-level and community-level strategies do not directly impact the medication-taking process but rather indirectly create a supportive environment to improve the medication-taking process. These indirect strategies indicate that the participants were able to apply the underlying issues when creating strategies for change.

The participants felt that individual practices should include visiting one pharmacy, following the prescription instructions, creating a routine, using natural remedies, asking questions of health care professionals and not taking other people's medications other individual strategies included carrying a list of their own medications, cleaning out their medicine cabinet regularly and returning 'dead' or expired medication. The participants

also felt that some seniors need to be 'given permission' to ask questions as well as be made more aware of resources that are currently available. Further, all of the groups felt that people should find a doctor and pharmacist that treats them well and with whom they have good rapport. The participants felt that these important topics should be used in a message that is delivered to all seniors.

> ...The best thing that we can do for ourselves while we are still able to is to annually clear out our medicine cabinet of the expired stuff.
>
> ...Awareness that these facilities are...available cause a lot of us live in ignorance of things that would actually help us...

The participants commented that people have to stand up for themselves and take responsibility for their own health. The participants even commented on the importance of a good diet and exercise.

> Generally, my wife, I keep telling her -- don't take so many medications...of course she is getting a little better now because she can do a little exercise. For myself, I firmly believe a good healthy nutritious diet and exercise, these are the two basic things that help us lead a good life.

The only family-level strategy recommended was the notion that instead of the character's daughter seeing the pharmacist on her own, she and her mother should visit the pharmacist together. This idea of an 'advocate' was a major theme throughout all discussions with all groups. The groups did acknowledge that this might be difficult if one or both of these ladies are working. This strategy is consistent with previous discussions about seniors being intimidated by professionals, that advocates ideally should be family but that often family members are too busy with work to help others.

> Her daughter, one mentioned her daughter was worried about it and had spoken to the pharmacist but I don't know if she got that much satisfaction from the way she talked. She didn't feel that she got...
> Maybe they should both go together.
> That may be difficult now if they have jobs.

Professional practices that were discussed as strategies to improve the medication-taking practices of seniors included medication reviews, pharmacy practices and physician practices.

One participant had the personal experience of witnessing the value of a medication review. A nurse caring for a participant's mother suggested a medication review as a solution to address the numerous medications the mother was taking.

> And [the nurse] says, '... I'll give you list of all the medications she's on, and make an appointment with the doctor, so he can't say I'm too busy to see you...and get your sister to go with you'... and when [the doctor] went over the medication, he cut them down by half

The investigator directly asked participants for their opinions regarding medication reviews. Medication reviews were generally regarded as an excellent strategy to improve seniors' medication-taking practices. It was recommended that medication reviews occur once each year along with annual medical exams. There was a general uncertainty as to which healthcare professional should perform the medication reviews; doctors had the power to actually change the medications, but participants felt the pharmacists knew more about the medications. It was clear throughout the discussions that the cost and time commitment required for a review would make it an impossible strategy.

The strategy to have a medication review, or some sort of medication awareness, at flu clinics would be an effective and efficient strategy. Two of the three groups of participants were currently involved in flu clinics and volunteered to help. Interestingly, a community health clinic was started as a result of seniors asking many varied questions at the community flu clinic.

> The < > Health Clinic started quite a few years ago started a thing because they found when seniors came in for their flu shot, they had a lot of questions to ask not

> regarding the flu shots and so they thought it would be great if there could be a meeting...and they'd have a nutritionist, pharmacist and several people...

The participants provided many examples of pharmacy practices that improved their own medication-taking practices. These included things such as computer reviews of all medications, a printout with all prescriptions, color tags for marking pill bottles, changing pill-bottle lids for easier access as well as changing medication schedules. In addition, some participants felt that a central registry would be an excellent addition to pharmacy services while others felt that it would jeopardize their personal information. Pharmacists also provided the valuable services of organizing pills into dosettes, providing clear instructions and delivering medications to homes. An interesting strategy recommended by one group was to have simple, large print labels on the pill bottles with only the name of the medication or another distinctive marking. Accompanying the bottle, a single sheet with large print and condensed information would provide the instructions for taking the medication and the possible side-effects. This sheet could also then be used by others (including caregivers) in the case of an emergency.

Physicians provided strategies that helped the individual participants with their medication-taking practices. Specifically, checking previous prescriptions before prescribing a new drug, improving medication-taking schedules and giving sample medications were valuable practices. In addition, the participants felt that physicians should be more aware of their language and communication strategies.

> I think the [doctors] also have to sensitive to speaking the language that we understand.

Discussions around community-level strategies were generally categorized into 'friends and neighbors' and 'organizations'. The participants felt that friends and neighbors were an integral part of successful medication-taking practices as family members are often unable to assist. Specifically, participants communicated the value of having a 'phone buddy' to check in with each day, the importance of getting to know neighbors and the concept of having an advocate when dealing with healthcare professionals. Moreover, the participants felt that it is important to have another person aware of the medications a senior is taking in case of an emergency. The participants also commented on how difficult community contact can be because people have become so isolated and busy. This strategy reflects discussions about the value of friends and neighbors, the influence of busy families, seniors being intimidated by professionals and community values shifting to independence.

...We're so isolated now, I don't know how you would break that barrier really.

The group also identified many community organizations that could offer support to individuals or serve as a place to distribute information on medications. These organizations were basically 'listed-off' by the participants as places where individuals could access information and support; the actual role of these organizations was not discussed. This may have resulted because the seniors were aware of the organizations but had never accessed them personally because they are in supportive environments themselves, i.e., community groups and a seniors lodge.

Specifically, the group mentioned adult day programs, the Lamplighter organization, the Help Line, seniors' centres, churches, golf clubs and health services. Services such as Meals on Wheels and the Public Library were thought to provide valuable services

because they would go to person's home and would help those who are more isolated. One group made the innovative suggestion of having old schools turned into seniors' health centres where emotional, social and physical needs could be met in an individual's own community.

The participants recommended two policy issues that would improve the medication-taking process for seniors as a result of watching the video; regulating the mark-up on medications and regulating the size of dose, i.e. the standard 100-day prescription, prescribed by physicians. These strategies reflect many underlying issues including the economic burden medications place on seniors, the practice of seniors shopping around for medications, the large doses commonly prescribed by physicians as well as ineffective and inappropriate prescriptions causing waste. Moreover, the strategies represent the fact that seniors realize this issue is directly out of their control but is under the influence of government.

> I mean, if I'm taking an aspirin, no matter which pharmacist I go to, that aspirin should cost me yeah number of dollars.
>
> I know, the government should clamp down...
> Well if there was a standard price, then the people wouldn't shop around.
>
> The government should clamp down and say don't give out so much.

The participants recommended many educational strategies including the content of the message, the form of the message such as print or television as well as the population involved. The groups recognized that some of the strategies, such as those in print and on the television, could be expensive but that sponsorship might be obtainable from the drug manufacturers. The participants felt that the content of the educational message should incorporate all of the mentioned strategies. There was concern that the message should be

effective and dynamic enough so that it is not ignored. Further, one participant suggested that a message should be sent out to seniors to stay independent.

> I think...that perhaps there's almost an overemphasis on services for seniors, support for seniors and so on. I am beginning to feel as if I need to use that, when I would rather have the message come through, 'stay independent, look after yourself' all those sorts of things...

The participants suggested that educational strategies should be presented on television, in print or by personal presentation. The participants recommended studying the television viewing habits of seniors and targeting educational messages into these time slots. The groups felt the most effective time for delivering a message would be during the health section of the local six o'clock news. Interestingly, the participants themselves often brought up information they received from the news suggesting they retain and apply this information.

> ...TV really covers a large part of the population. And especially if it could be in or near...on or near news time."
> Well the station I watch, from six to seven, it's I don't know, it's channel two. They have a health program.
>
> But if you look at the key viewing habits seniors, that's when you want to get your...I mean certainly we watch different programs than the younger generation.
> Six o'clock news would catch a lot of people.

It was also suggested that messages be delivered at times when younger audiences would see them so that they could make changes earlier in their lives.

> I was thinking of the Big Breakfast, that's a young person's channel, but never the less, I'm sure that young people need to know the same thing I need to know about my medication.
> If they knew when they were younger...
> We wouldn't end up with the problems.

The participants felt that print information would be valuable if it went into homes periodically in the form of pamphlets. They also felt that seniors' papers and posting on

bulletin boards would be an effective means to distribute print information. It was generally felt that health care professionals, such as physicians or pharmacists, could provide much of the printed educational material because seniors access these services often. A problem with this strategy included the professionals not following through and delivering the materials. Home care was viewed as an excellent resource for providing information on and delivering information to isolated seniors who may not access other health care professionals. Finally, the seniors thought students may be too 'idealistic' to deliver educational materials but that retired pharmacists would be highly valued.

We tend to place a high value on experience.

The participants also felt that a personal presentation of information would be valuable if it did not appear to be intimidating. Again, this reflects the issue that many seniors are intimidated by professionals.

> Probably good if it came with some sort of little talk from someone who's qualified because how many times are you handed a little piece a paper and you go home and the next place it goes is into the garbage...

It was recommended that the educational information and the results from this study be directed to government, organizations and the media. At the government level, the participants felt that the information should go to Alberta Health Care, the Minster of Health, Health Canada and the Premier. There was, however, a general doubt that anything would be done at this level.

Send it to them anyway. Just to make the pile bigger.

The participants felt that many different groups needed to have access to this information in order to improve the medication-taking practices of seniors. These groups included the Health Centres in urban and rural settings and health care professionals such

as doctors, pharmacists, naturopaths and social workers. It was also recommended that the information go to associations such as Medical Associations, Alberta Geriatric Association, Society for the Retired and Semi-Retired, Concerned Citizens, Alberta Gerontological Association and The Seniors Health Council. The participants also thought that the messages should go to the Alberta Pharmaceutical Association and the Diabetes, Arthritis and Lung Associations. Finally, the groups felt the information should go to Universities to the nursing assistants, nurses and licensed practical nurses as well as doctors and pharmacists.

Overall, the participants provided many strategies to improve the medication-taking practices of seniors. It is evident that that the majority of the strategies are at the individual and community level and very few are given for the family-level. Although many of the strategies involved traditional educational approaches, a few unique individual-level and community-level strategies were uncovered. Interestingly, these strategies, such as a 'phone buddy' or an 'advocate' did not directly relate to the medication-taking process suggesting the participants were able to apply the underlying issues when creating strategies for change. Further, many professional-level strategies were recommended for physicians and pharmacists suggesting seniors acknowledge that these individuals play a key role in their health.

Praxis

Praxis, the spiraling change between action and reflection, is the final criterion for an empowerment education approach. The participants did reflect on their personal medication-taking actions, but the participants did not act subsequent to these reflections. As such, the project did not demonstrate praxis.

Conclusion

The findings presented in this chapter demonstrate an empowerment education process applied to seniors and their medications. The important components that contributed to this project included the planning meeting and the two focus groups. The overall findings identify important issues regarding the entire project including understanding the purpose of the project, differences among the groups of participants, and the effectiveness of the five-stage process, among others. Further, the findings have provided some insight into how different groups react to the same empowerment education process. Finally, the findings highlight which criteria of an empowerment education process where met in this project such as listening and critical thinking, which were partially met including participation and empowerment and which criteria were not met such as action and praxis.

The findings presented demonstrated many strategies that could improve the medication-taking practices of seniors. The strategies created were the result of discussions about the underlying influences and incorporated comprehensive factors. As such, many of these strategies reflect a socioenvironmental approach to health.

Chapter 5 - Discussion

Analysis of this empowerment education project as it applies to seniors and their medications has provided insight into the overall empowerment education process, the medication-taking practices of seniors as well as strategies for change. This chapter discusses the effectiveness of the project in meeting the six criteria of an empowerment education process. Specifically, the discussion addresses the overall empowerment education process and the underlying influences on seniors medication-taking as identified by the participants. Further, the strategies created through this process are explored as they relate to the literature as well as to the underlying. Finally, the limitations and implications of the project are discussed.

The Overall Process

The findings provided information regarding the overall empowerment education process. Specifically, the 'code', or video, made important contributions to the overall process, influencing both the listening and dialogue components. In addition, procedural characteristics including the planning meeting in conjunction with the focus groups, the questions, transitions and the creation of new categories all present valuable information regarding the empowerment education process.

The findings demonstrated that the 'code', or video, had three characteristics that contributed to the empowerment education process. These characteristics included providing part of the curriculum, instigating dialogue and being familiar to participants. The video contributed to the curriculum as it provided a many-sided problem regarding seniors and their medications that the participants used as a 'jumping off point' for their

discussions and also aided to structure the discussion around common medication issues. The video instigated discussion by providing situations that the seniors felt comfortable talking about and, leading into the third point, were familiar to their own personal situations.

The participants from the two community groups felt that the video was an effective discussion tool and that the dialogue process was an effective learning tool, but the group from the lodge did not agree. This particular group may have been less susceptible to the information in the video because their living arrangements provide continuous entertainment, making the impact of the video less effective. Supporting this concept, Minkler (1985) suggested that codes may not be appropriate for some participants and that it should reflect the context and setting of the program. Based on her study of seniors in the Tenderloin region of San Francisco, Minkler felt that although codes were a key element in the dialogue process, they may be less successful in a 'media-saturated' society where participants are exposed to television and other media on a regular basis.

Dialoguing in this empowerment education project demonstrated four procedural characteristics that were not discussed in the literature. These included the effectiveness of the planning meeting in conjunction with two focus groups, the effectiveness of particular questions, the presence of 'transitions' and the creation of new categories for strategies. These characteristics present important aspects of an empowerment education process that should be considered by other researchers and agencies when designing similar projects.

The overall project employed one planning meeting and two focus groups. The findings indicated that the planning meeting was not effective for generating insight on

the overall project, for making suggestions to improve participation or for establishing goals of the participants, as initially planned. One possible reason for this is that the participants did not have a clear understanding of empowerment education or the purpose of the research. This may have resulted because empowerment education is difficult to explain or comprehend when limited by time and unconducive surroundings. The participants were asked for goals that would measure the success of the project with the intention of assuring that the participants' goals were equally important to the researchers' goals. The question was stated 'What possible outcomes or measures could we use to decide if the project is successful?', which presents two significant problems. First, the wording of the question is not clear and concise, it does actually use the word 'goals'. Secondly, the participants did not have an authentic stake in the outcome from the project and therefore would not be able to establish authentic goals. The planning meeting did however provide an invaluable opportunity for the researcher to pilot-test the questions and determine how the overall process would unfold.

Each group of participants took part in two focus groups; one to apply the empowerment education process and the second to verify results and comment on their participation. The findings indicated that the second focus group was used for the original purposes as well as to create additional strategies that were not completed in the first focus group. One possible reason for this may be that the overall empowerment education process is so comprehensive, that multiple meetings are needed to fully apply the process. Another explanation is that the participants, in this case seniors, were not able to sit through, or concentrate for, the entire meeting because they got tired, lost interest or because they had not been involved in problem-naming. Interestingly,

participants were able to provide suggestions of higher quality at the second focus group meeting than at the planning meeting suggesting they gained an understanding of the process by participating in it. An interesting addition to this project would have been to ask the planning meeting questions again, at the end of the project.

The findings indicated that not all of the questions asked in the first focus group were effective. Specifically, the participants were not able to provide immediate, relevant responses to the underlying psychological, cultural or political issues on the medication-taking process. Two reasons for this may be that the participants did not understand what these terms meant or did not understand how these terms related to the medication-taking practices of seniors. Moreover, the participants may not have responded directly to the political influences because they felt that they had no control over them, which was indicated in the findings. Two interesting conclusions about the empowerment education process can be drawn from these 'ineffective questions'. First, these results may indicate that the psychological, cultural and political underlying influences are not actually important or relevant underlying issues in the medication-taking process or, more specifically, not relevant to this population. Second, these results may indicate that the questions were actually pushing the participants' understanding of the underlying issues to areas they had not previously considered.

Transitions were instances where the video directly triggered personal experiences of the participants and were demonstrated through participants discussing the video and immediately bringing-up a personal experience. Transitions indicate that the video was an effective tool for incorporating personal experiences. Transitions were effective tools for supporting situations presented in the video. For example, there were times when

participants did not believe that the things occurring in the video actually occurred in real life until someone from the group referenced a personal experience to support the claim.

The participants recommended that two new categories, namely community-level and professional-level strategies, be added to the existing categories of strategies which included social, economic and individual, among others. This recommendation suggests that health care professionals and the community play an important role in the medication-taking practices of seniors and that this was recognized by the participants. Further, this recommendation suggests that the participants did not want the importance of these roles to be overlooked in the results. This communicates that the participants understood the purpose and the goals of the project and learned enough about empowerment education through involvement to make such recommendations. Finally, this informs the overall empowerment education process in that these two categories should be considered in other empowerment education studies in similar areas.

Meeting the Empowerment Education Criteria

This empowerment education project was successful at meeting some of the criteria of an empowerment education process but did not meet others. Specifically, listening and dialoguing with the use of a 'code' were fully utilized in this project, empowerment may have occurred but was not measured, participation was only partially encouraged and action was not taken. Finally, the discussion of these components suggests how they link together in the overall process implying that each is essential in empowerment education.

Listening is the first criterion in the empowerment education process and Wallerstein (1992) describes this step as listening to the participants' problems and eliciting

emotional responses to these issues to create the curriculum for the education program. 'Listening' to participants in this way was not in the original design of this project but was partially fulfilled through the dialogue process. The dialogue process elicited the participants' personal experiences and problems with respect to medication-related issues as well as the emotional responses associated with these problem areas. Both the personal experiences and the feelings were then incorporated into the discussions to create a component of the curriculum.

The concept of 'listening' during the dialogue phase is consistent with the literature on empowerment education. Two empowerment education studies suggest that 'listening' occurred throughout the entire process and not solely in a 'listening phase' (Minkler, 1985; Wallerstein & Bernstein, 1988). For example, in the project described by Wallerstein & Bernstein (1988) listening occurred with empathetic listening of the group, in brainstorming sessions, during the role-playing, through closed and open questioning and through take home projects.

Three factors enabled 'listening' to occur including the order of the questions, the ability of the facilitator to adapt the questions and the flexible curriculum. The five-stage questioning process facilitated ongoing listening by encouraging participants to share personal experiences and feelings early in the process. Further, the facilitator referred back to these areas during the discussions to ensure they were incorporated. Finally, although the dialogue process followed predetermined steps and was based on specific topic, there was some flexibility in the overall curriculum. This gave the facilitator latitude so that the personal experiences could be incorporated into the curriculum.

The second criterion in the empowerment education process is dialoguing for the purpose of critical thinking, which would examine the root causes of the participants' problems. The literature recommends the use of a 'code', or a concrete representation of the participants' problems, to instigate the dialogue (Wallerstein & Bernstein, 1988). Critical thinking was achieved in this project, as the participants were able to uncover a range of influences including caps on pill bottles, lack of family support, inconsistent mark-up on drugs and drug insurance. Further, the participants discussed individual, family and system-level influences on the medication-taking process. It was the combination of the three factors including the order of the questions, the facilitation and the flexible curriculum that enabled the dialogue process to occur. The order of the questions ensured that the participants identified the issues, and by identifying issues, the participants were drawn into the situation presented in the video. Next, the participants offered opinions on what the video characters were feeling, which had participants imagine themselves in the same situation. Finally, the participants used this foundation to identify the underlying influences associated with seniors' medication issues. The facilitation was integral for incorporating all of these components, particularly the medication issues with the underlying influence, for example, 'how is sharing medications an economic issue'. Finally, the curriculum was flexible enough to allow the facilitator to relate back and forth between issues, feelings and underlying influences.

This project provided a framework that may have created a situation in which the participants were empowered, the third criterion, although empowerment was not measured. As such, no comment can be made as to whether this project met the criterion of being empowering. This situation is consistent with the literature regarding

participatory action research as Schofield (1998) maintains that a participatory action research approach focuses more on the process of learning than the product of learning and consequently, outcomes concern better understanding of the process rather than measurable changes in participants. Wallerstein (1992) defines empowerment as a multi-level construct that involves people assuming control over their lives in the context of their social and political environments. The framework created in this project that may have contributed to empowerment included discussing the underlying influences of medication-taking issues, sharing personal strategies for improving issues, discussing power issues, creating new strategies and finally, strengthening community empowerment variables. For example, participants described situations when they did not have any control and shared personal strategies for gaining power, such as asking questions of physicians. Finally, the action of making decisions suggests an empowering process but participants actually assumed more of an advisory role and did not actually make final decisions, although they did inform decisions.

Wallerstein (1992) discusses the implications of measuring empowerment and suggests that ideally empowerment should occur on all levels including processes and outcomes of both individual and environmental change. Specifically, measurements could include self and political efficacies or the perceived ability to help others and participate in community change (Wallerstein, 1992). Further, measurements could include critical thinking abilities about root causes, outcome expectancies and beliefs in one's ability to exert control (Wallerstein, 1992). Examples from the literature include changes in self-efficacies and attitudes toward diabetes (Anderson et al., 1995), knowledge of the subject matter before and after program delivery (Askari & Mehring,

1992) and participants' self-efficacy regarding controlling their own lives and influencing others (Wallerstein and Bernstein, 1988).

The forth criterion of an empowerment education project, namely participation, was only partially met in this study. Participation, as it applies to an empowerment education project such as this, is a multi-dimensional term and can be explored in different ways. For example, the project did not demonstrate participation as defined by Labonte (1993), instead meeting many of the characteristics of involvement. The findings of the project did however indicate that participants felt comfortable sharing information and that they felt as though they were part of a group, which are important for encouraging optimum participation in a project. These indicators included 'being part of a whole', 'relating to each other', 'questioning each other', 'seeking group support', and 'encouraging each other'.

The overall project demonstrated many characteristics of involvement as outlined by Labonte (1993), partially due to the constraints of a research project and partially due to the personal philosophy of the researcher. For example, the project had certain time and budget constraints which were not conducive to the participants 'naming' the problem or being involved in the entire process. Further, a University Ethics Board may or may not approve a study that did not have a specific problem or design. As a result, the focus on medication-related issues was determined by the agency sponsor, the conditions of involvement were set by the sponsor agency and the terms of engagement were in control of the agency sponsor. Finally, the participants established their own goals for project but these goals did not take precedence over the goals of the researcher.

The many implications for a research-based project are consistent with Hart & Bond's (1996) discussion of action research and typology. They explored a project that was conducted primarily for a higher academic degree and as such it reflects an 'experimental type' with strong social scientific bias and is researcher focused. Generalizing about projects that are researcher focused, Hart & Bond (1996) suggest that they are researcher-led from the beginning, including a clearly defined researcher role. In this situation, it is the researcher who controls the problem-focus and defines what counts as improvements. Hart & Bond's description is consistent with the observations made by the researcher in this project concerning the limitations on participation.

Participation was demonstrated on a smaller scale during the dialogue process. Webster's Dictionary defines participation as 'the state of being related to the larger whole'. Building on this, the researcher used categories such as 'relating to each other', 'questioning each other', 'seeking group support', and 'encouraging each other' as indicators of participation. This type of participation may have occurred because of the type of participant groups that were used in this study, i.e. knew each other socially. Further, the curriculum was flexible enough to allow the participants opportunity to communicate among themselves without the facilitator intervening.

There were two criteria that the empowerment education process did not meet, namely taking action and praxis, which was the result of not taking action. The participants in this project did not take action as it was not in the initial design of the project. Rather, participants were invited to join the larger, Medication Review project, of which, only a few did. Participants did recommend many strategies for action that incorporated the underlying issues identified in the dialogue process. As a result of not

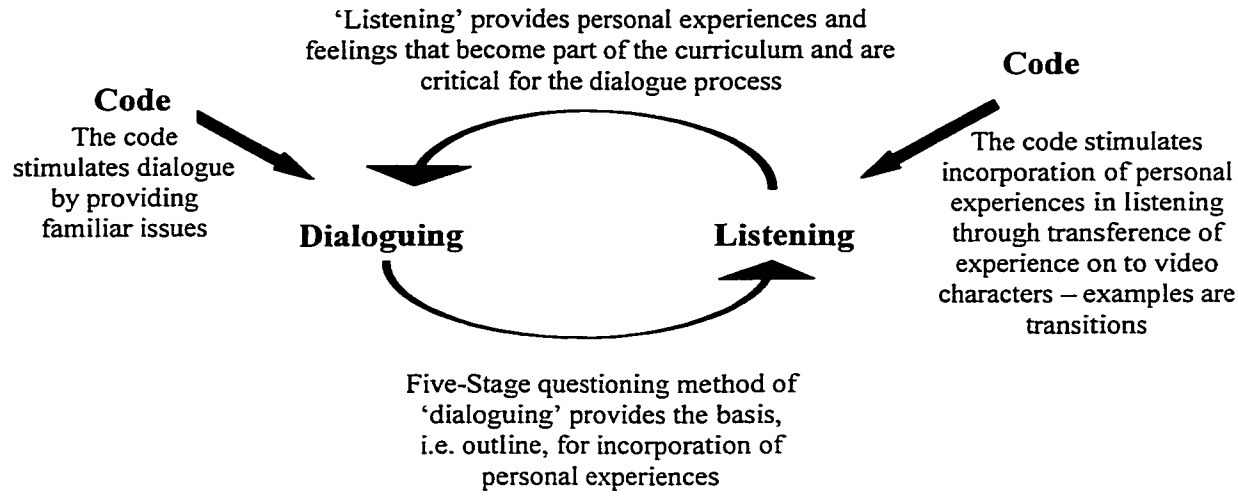
taking action, the project lost the momentum that action contributes to a project and additionally, praxis (the spiraling change between reflection and action) could not occur. Specifically, the critical thinking component in this project encouraged participants to reflect on their medication-taking practices, but the project did not allow for the subsequent action on reflection.

Interdependence of the Six Empowerment Education Criteria

Analysis of the entire empowerment education process in the context of meeting or not meeting the six criteria provides insight into how the six components are linked together. Examination of listening, dialoging and the influence of the code demonstrates that these components are linked within an empowerment education process. The absence of 'acting' in this empowerment education project comments on the potential influence of acting and praxis on listening and dialoguing and vice versa. Participation does not fit into this description of the project as a component, but rather provides the essence that enhances and maintains the process. Finally, empowerment is a product of the process that could be measured if action and follow-up were incorporated into the overall design.

Analysis of these two processes, listening and dialogue, in conjunction with the video suggest that these three components are linked within the empowerment education process. Although each one operates independently and could be applied independently, when placed in the context of an empowerment education process, each is dependent on the other. Figure 5.1 demonstrates how listening, dialoguing and the code work together in the empowerment education process. The code stimulates dialogue by providing familiar issues for the participants to discuss.

Figure 5.1. Listening, Dialoguing and The Code in Empowerment Education.



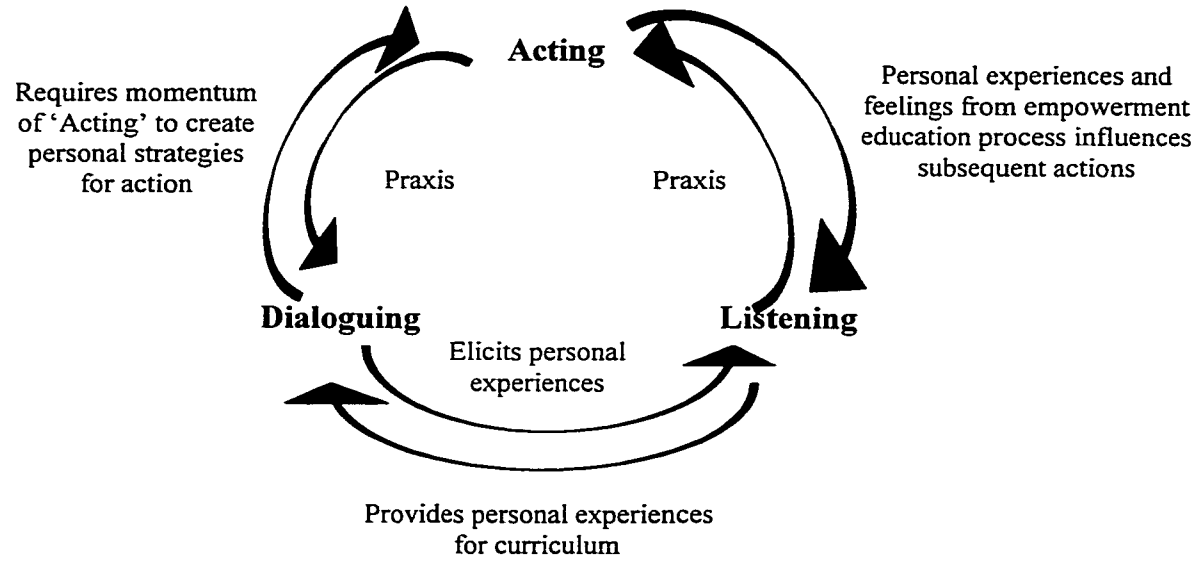
The code also stimulates the listening phase, specifically incorporating personal experiences and emotions, by providing subjects that the participants can talk about without having to talk about themselves. An example from the findings was when a participant said:

> The video is reassuring in the sense that it sent out the message that no, I don't have to talk about myself, I can talk about somebody else...

These 'transitions', or instances where discussion of the video directly triggered personal experiences of the participants, demonstrates how the code stimulates incorporation of personal experiences into the process. Moreover, dialoging and listening are linked to each other in an empowerment education process. The five-stage questioning method used in dialoguing provides the basis for eliciting personal experiences, i.e. social, economic influences. The listening process provides the personal experiences and feelings that become part of the curriculum and are critical for the dialogue process.

The effects of not taking action influenced both listening and dialoguing, suggesting all three were linked within the empowerment education process. Figure 5.2 demonstrates how the three concepts are linked together. Action could be implemented without one or both of 'listening' and 'dialoguing' but when placed in the context of empowerment education it enhances, and is enhanced by, the others. Dialoguing needs the action step to build and maintain the empowerment education process and, in this way, dialoguing creates a foundation for action. For example, dialoguing requires identification of the issues, understanding of the underlying influences and finally creation of strategies for action in the context of personal experiences (Wallerstein & Bernstein, 1988). This project was not able to create strategies in the personal context of the participants because they were not going to act. Specifically, this project intended to use the question 'What can we do about this problem in our own lives?'. In reality, once the researcher reached this question, there was no momentum in the process because the researcher had originally defined the participants' commitment as two focus groups exclusively and had not originally mentioned that they would participate in action. Although participants were invited to participate in the larger Medication Review Project, the investigator minimized the commitment upon recruitment to simplify the project description and to avoid discouraging participation. As a consequence, in focus group two, the researcher asked 'what can be done about this problem' excluding the personal context. Listening is linked to action because the incorporation of personal experiences and feelings may influence the subsequent actions an individual takes. Finally, 'acting' provides the subject matter for reflection and meets the criteria of praxis.

Figure 5.2: Listening, Dialoging and Acting in Empowerment Education



Participation is not included on the diagram as it provides the essence rather than being a component of the process. If true participation were encouraged, listening, dialogue and action may have all occurred and personal experiences as well as feelings may have been more genuine and intensified. Empowerment is a product of, as well as the process included, in the overall procedure.

Applying Figure 5.2 to seniors and their medications in an ideal situation where all six aspects could be exploited, the participants would reflect on their current medication-taking actions during the critical-thinking component which, as a result of listening, would include personal experiences. The participants would then analyze the underlying influences and create strategies for change within a personal context, leave the project and act on these strategies. A follow-up component would allow for reflection on these actions fulfilling the criteria of praxis and furthering the curriculum for dialogue and

listening. This is consistent with Wallerstein and Bernstein's (1988) description of the empowerment education process:

> After the initial listening and dialogue stage, the third stage of action emerges directly from the problem-posing discussion. As people test out their analyses in the real world, they begin a deeper cycle of reflection that includes input from their new experiential base. This recurrent spiral of action-reflection-action enables people to learn from their collective attempts at change and to become more deeply involved to surmount the cultural, social or historic barriers.

Influences and Strategies on the Medication-Taking Process

This empowerment education study was successful at identifying the socioenvironmental influences on seniors' medication-taking practices and contributes to the medication-related health education literature as no studies were found that applied a socioenvironmental approach to medication-related health education. Consistent with current health promotion practices, a determinants of health approach provides a framework for categorizing these influences and demonstrating how they are interrelated. Further, these influences provide a context for the strategies developed by participants for improving the medication-taking practices of seniors.

Theoretically, health promotion initiatives involve five key strategies for enabling people to increase control over and improve their health including creating supportive environments, reorienting health services, developing personal skills, strengthening community action and building healthy public policy (WHO, 1986). This project identified strategies for developing personal skills and strengthening community action as well as contributed to building healthy public policy.

A Determinants of Health Framework

A determinants of health framework was used to systematize the broad influences on seniors' medication-taking practices and to demonstrate how the influences were interrelated. The value of using a determinants of health framework is outlined in the Health Canada publication, Taking Action on Population Health (1998). These attributes include providing a conceptual framework for thinking about health and identifying factors that influence health, stressing the importance of collaboration between sectors and guiding decisions for policies and priorities. Accordingly, categorization of the influences provides a framework for thinking about medication-taking in seniors; provides a framework for identifying factors that influence the medication-taking process; stresses the importance of intersectoral collaboration by demonstrating the interrelated nature of the influences and may guide policy and priorities as discussed in the section Building Healthy Public Policy.

The determinants of health as identified by Health Canada (1999) include income and social status, social support networks, education, employment and working conditions, social environments, physical environment, personal health practices and coping skills, healthy child development, culture, health services, gender and, finally, biology and genetic endowment. The participants and the literature identified influences that provided examples of each of these determinants. Health Canada stresses the complex interactions between the determinants, which was also demonstrated in many of the influences identified by participants.

Income and social status is the most important determinant of health (Health Canada, 1999). Higher income levels affect living conditions such as safe housing and the ability

to by sufficient good food (Health Canada, 1999). Within this study, low income levels prevented some seniors from purchasing medications not covered on the formulary of the Alberta Blue Cross Drug Benefits Program. Further, insufficient income prompted some participants to shop around for the lowest price for medication. In addition, the participants acknowledged that there are some seniors that are not able to afford their medications at all. Income has been identified in the literature as an influence on the medication-taking process. For example, the low socioeconomic status of patients was associated with these individuals being more likely to receive a prescription than patients of higher socioeconomic status (Scott et al., 1996).

There are policy implications within the economic influences on medication-taking. These policies include benefits for seniors, policy on generic drug manufacturing and the long waiting period for drugs to be approved by provincial benefit programs. Additional policy influences on medication-taking that were identified in the literature include new and expensive drugs that are placed on the market, the overall rising costs of medication and the inconsistent coverage of provincial medication insurance.

Social support from friends, communities and families and the caring, supportive environments they provide are associated with better health (Health Canada, 1999). Similarly, the participants in this study identified the importance of support at all three of these levels including friends, communities and families in the medication-taking process. Additionally, the participants uncovered many implications associated with social support such as changing family values, geographic relocation of family support and the increasing role of friends and community. Social support has been identified in the literature as an influence on the medication-taking process. For example, seniors

without helpful family and friends were more likely to have stressful lives and to be multiple drug users than those with supportive family and friends (Bergob, 1996).

Health status increases with increasing level of education through better job opportunities and increased sense of control over one's life (Health Canada, 1999). The participants of this study identified higher education as one factor that contributed to seniors asking questions of doctors with respect to health and medications. Education has been identified in the literature as an influence on the medication-taking process (Health Canada, 1995).

Employment and working conditions influence health through provision of resources and level of stress (Health Canada, 1999). As the participants in this study were retired, lack of benefits through retirement and lack of financial resources were identified as barriers to needed medications.

Social environment such as social stability, recognition of diversity, safety, good relationships and cohesive communities provides an environment that removes risks to good health (Health Canada, 1999). Within a medication context, good relationships with friends were suggested to compensate for deteriorating family values. Such cohesive communities provide support through community organizations, families and even community structures. Other influences within the social environment identified by participants included the way doctors treated seniors and the social expectations placed on seniors by many members of society. Specifically, doctors not taking time to listen to seniors and not valuing seniors as patients were particularly concerning to the participants. Finally, participants recognized boredom, feeding off others' anxiety and feeling 'uncared for' as influences on medication-taking.

Physical environment such as air and water quality as well as human-built surroundings including housing and community are influences on health (Health Canada, 1999). Participants identified that the presence of care homes and lodges make it easier for families not to personally provide care to aging parents. Further, not having care facilities in a community was also identified as influencing health because it meant that an individual had to move, severing social ties. Specifically regarding medication, access to information via the internet allowed seniors to make informed decisions about medications.

Personal health practices and coping skills for dealing with life in healthy ways are influences on health (Health Canada, 1999). Participants in this study identified personal strategies such as using herbal medications, exercising and not sharing medication as strategies to improve health. Personal health practices are discussed further in the section Developing Personal Skills.

Healthy child development effects subsequent health, well-being, coping skills and competence (Health Canada, 1999). Within a medication-taking context, participants identified a family's medication-taking practices as influencing the children's practices throughout their lives. Further, family values regarding caregiving for aging parents was identified as being learned through family practices.

Culture and ethnicity come from personal history as well as wider, situational factors and influence health (Health Canada, 1999). Similarly, participants in this study identified western influences, natural remedies, spirituality, family values, changing community values and professional's choice of vocabulary as cultural factors that influence the medication-taking practices of seniors.

Access to health services that maintain and promote health, prevent disease and restore health contribute positively to health (Health Canada, 1999). Participants in this project identified poor practices and attitudes of doctors as well as poor organization and communication in the health system as barriers to good medication-taking practices. In addition, seniors visiting more than one doctor, doctors giving a standard 100-day prescription and not giving sample medications were also identified as barriers to effective medication-taking.

Gender refers to the many roles, personality traits, attitudes, behaviors, values, relative powers and influences which society assigns to the two sexes (Health Canada, 1999). As such, each gender may be influenced by the same health issue in different ways. Specific to medication, the participants suggested that men were less likely to discuss medication-related, or even health and emotional issues than were women.

Biology and genetic endowment, including inherited predispositions that influence the ways people are affected by diseases, influence health (Health Canada, 1999). The participants identified arthritis, allergies, aging in general as well as genetic predisposition as relevant factors that influence medication-taking practices of seniors by altering the medication-taking regime. Similarly, the literature describes how functional limitations influence the medication-taking process including being unable to read prescription labels, unable to interpret directions, unable to open or close a child resistant cap and being unable to distinguish pills by color (Meyer & Schuna, 1989). Participants mentioned each of the function-related impacts described in the literature except for being unable to distinguish pills by color.

The identification of new influences on the medication-taking practices of seniors provides valuable information regarding medication management. These influences have helped to provide insight on the seniors' perspectives, which can inform healthcare providers and professionals on the most effective way to serve this population. Further, identification of these new influences has demonstrated how intensely interrelated these factors are, such as the tendency for policies to be linked to economic barriers or the practices of doctors to be connected to the self-image of seniors.

Health Promoting Strategies

The strategies recommended from this empowerment education process reflect the underlying influences identified throughout the process. As many of the strategies resulted from more than one influence, they demonstrate the interactions between influences. Additionally, the strategies fit within a determinants of health framework and represent the theoretical categorization of health promotion strategies including developing personal skills, strengthening community action and building healthy public policy (WHO, 1986).

Developing Personal Skills.

The findings identified many individual-level strategies that demonstrate personal health practices, or personal skills, such as visiting one pharmacy and not taking other people's medications. Some of the individual strategies included taking responsibility for situations involving others instead of accepting the situation or waiting for others to change. For example, the participants recommended finding a new doctor or pharmacist that respects the needs of seniors instead of hoping the professional will change. There may have been many individual-level strategies because they provided a straightforward,

simple response to the issues presented in the video. Additionally, numerous individual-level strategies may have been a reflection of the participants' personal philosophies as two of the three groups felt strongly that seniors must take care of themselves.

Strengthening Community Action.

The participants recommended community-level strategies that may strengthen community action including using a buddy-system and having an advocate when dealing with professionals. Additionally, the seniors recommended many organizations that could assist seniors in need, but did not discuss in detail the role these organizations could play even after the researcher probed. This may have resulted because the seniors were aware of the organizations but had never accessed them personally due to their own supportive environments. These community-level strategies provided participants with a means to address or withstand issues that were imposed on them from a policy or system level. For example, having an advocate creates an opportunity to help seniors work with professionals as opposed to working within the existing system where the professional has the control. These community-level strategies are significantly different from the three existing community-level strategies and contribute to the area of community-level educational strategies targeted at improving medication-taking practices.

The first existing strategy is "Knowledge is the Best Medicine", which includes a small group workshop, an educational brochure and a personal medication record. The program was designed to raise awareness among consumers about the importance of appropriate medication. The second strategy, "Medication Matters: How You Can Help Seniors Use Medication Safely", was developed to help professionals by providing information on clear, verbal, communication techniques. A downfall of this project is that

it does not use that at-risk group or incorporate the extensive factors that influence medication-taking. The third strategy is "Just Checking...Am I getting the Most From My Medication?" and maps out a problem-solving route to address issues with seniors including packaging to medication reviews. This project did involve the at-risk group in the planning and development process but, as the others, did not incorporate the socioenvironmental influences on the medication-taking process.

The strategies of using a 'buddy-system' and having an advocate are different from the existing strategies, as the new strategies do not specifically reference medication-taking, but general life skills and coping strategies. Further, these strategies stemmed from diverse underlying influences such as being treated inappropriately by professionals and lack of family support, and were created by the at-risk group. One of the most outstanding contributions these strategies make to the area of community-health education is the effectiveness of a socioenvironmental approach to address issues relevant to the ultimate stakeholder and create realistic and attainable strategies within the resources available to the stakeholder.

Building Healthy Public Policy.

Building healthy public policy is the third health promotion strategy demonstrated in this empowerment education project. This project may contribute to building healthy policy in Alberta by advancing the 'definition of the problem', a key factor in policy analysis (Pal, 1997). The discussion outlines the policy analysis process to elucidate the relationship of the findings from this project to building policy. Following this, relevant policies existing in Alberta are discussed to describe the political context with respect to developing healthy public policy in the area of seniors and their medication.

Leslie Pal (1997) provides an outline of policy analysis and defines public policy 'as a course of action or inaction chosen by public authorities to address a given problem or an interrelated set of problems'. Pal also identifies the three key elements of policy as definition of the problem, the goals to be achieved and the instrument whereby the problem will be addressed. It is with respect to the first element, defining the problem, that this project may have contributed to building healthy public policy in Alberta.

This project contributed to the definition of problem surrounding seniors' medication-taking practices by enhancing the context of the problem, defining the cluster of problems involved, being partially consistent with the public mood and recommending strategies consistent with the political agenda (Pal, 1997). The identification of the socioenvironmental influences on seniors' medication-taking practices in conjunction with the literature provides a rich description of the problem and the population involved. Additionally, the determinants of health framework demonstrated how the many influences were interrelated, which is consistent with Pal's observation that policy problems occur in clusters. For example, the problem that Canadian seniors do not have universal medication insurance (policy issue) is linked to some seniors shopping around for medications (economic issue) which may lead to inappropriate medication combinations (medical issue). Another important factor in defining the problem is assuring it is consistent with the public mood. A determinants of health framework is the consistent with the practices of the policy makers at both the provincial and federal level, suggesting that it is more likely to receive attention for policy development. Finally, definition of a problem must include solutions that are consistent with the policy makers' agenda. The findings from this study provided solutions that, as described below, are

consistent with the direction of the Alberta government or with the direction of other provincial governments in Canada.

Many influences and strategies that were identified by the participants are related to existing policies in the Province of Alberta. Specific areas with policy-level implications that were identified by participants included the possibility of a centralized drug monitoring system as well as the inconsistent coverage of medications through public insurance. Participants also recommended policy-level strategies including regulating the mark-up on medications and regulating the size of dose prescribed by physicians to prevent doctors from consistently prescribing for three months. Each of these issues stemmed from a variety of factors, is related to current policies on medications and have implications for future policy directions, often based on models from other systems or on pilot projects within Alberta.

The participants discussed the possibility of a centralized computer monitoring system that may prevent seniors, and others, from being exposed to potentially dangerous drug combinations made possible by purchasing medications from more than one pharmacy. A centralized drug monitoring system would track all of the medications a person was taking and this information would be available to all pharmacists in Alberta. The participants suggested that individuals looking for the cheapest place to purchase a medication in combination with convenience of the location of the pharmacy lead people to use more than pharmacy. Another contributing factor is that individuals may not tell a pharmacist, for various reasons, which medications that they were taking. One negative view of the centralized computer system included concern over personal information if it

was made available on a centralized system. There currently is not a drug monitoring system in Alberta, although the concept is being explored.

A model for Alberta is provided by the Department of Health in British Columbia called PharmaNet, a centralized drug monitoring system. The benefits of this system are that adverse drug interactions are immediately identified at the time of purchasing a medication and Pharmacare benefits are automatically calculated and consequently, individuals do not have to wait for reimbursements. PharmaNet had increased the ability of pharmacists to identify potentially dangerous medication combinations. For example, pharmacists flagged over 400,000 potentially dangerous drug interactions (BC Health, 1999). Alberta Health and Wellness is supporting a similar project, Alberta We//Net, that is currently being developed (Alberta Pharmaceutical Association, 1999). We//Net is the umbrella for a series of province-wide initiatives to build an integrated health information network in Alberta. This network includes the Alberta Pharmaceutical Association (APA), among many other health-related organizations and allows authorized health professionals to access health information on a timely basis. This information may include, but is not exclusive to the topics of treatments, test results and medications. The APA has advocated that the Pharmacy Information Network be included into Alberta We//Net so the system enhances pharmacist to provide proper drug therapy, which is superior to the system in British Columbia that merely facilitates dispensing (Alberta Pharmaceutical Association, 1999).

The participants discussed issues surrounding inconsistent drug insurance among individuals. For example, they identified that people often lose medication insurance when they retire from a job, at a time when they need it the most. They also discussed

that many seniors cannot afford medications even with the public insurance offered through Alberta Blue Cross. Another inconsistency with medication coverage is that some medications are covered and others are not. The economic barrier to medications resulted in participants not taking medications or taking alternative, more affordable medications. Health Canada (1999) reports that no Canadian province has a universal drug plan providing first dollar coverage to all residents. Most provide prescription drugs for seniors and three provinces including British Columbia, Saskatchewan, and Manitoba, provide some coverage to all residents with substantial individual 'contributions'. Based on the actions of the current government of Alberta to move toward private health care, it is unlikely that this Conservative government will implement universal medication coverage in any form.

Participants discussed the policy-level strategy of regulating the mark-up on medications, which would make them more accessible to seniors on a limited budget and may prevent seniors from shopping for the lowest price in medications. Regulation such as this is unlikely in the province of Alberta where the government generally supports business and enterprise. Alberta Blue Cross (ABC) provides the Least Cost Alternative (LCA) pricing, creating a situation where customers only pay for the lowest cost interchangeable drug. ABC also indicates that pharmacies have a maximum price that they can charge for a prescription (Alberta Blue Cross, 1999) Both the LCA and the maximum fee appear not to have satisfied the participants within this study.

The Government of British Columbia (1999) has adopted a strategy that may provide an alternative to regulating the mark-up on medications. This system reduces overall medication costs to the consumer and at the same time improves prescribing

appropriateness. Within this system of 'reference-based pricing', drugs that may be different in their chemical composition and mode of action, but that are used to respond to the same clinical problem, are assigned to the same reference class. If research literature shows that these drugs are equally effective, the province will only pay for the lowest cost drug in each reference class. Physicians may have an exception made for any patient. This system provides a model that may be adopted in Alberta to control the high costs of medications.

An alternative strategy may be to have seniors work with the Alberta Pharmaceutical Association as well as pharmacists to develop guidelines and fees for services. In this way, seniors would be more informed on the purpose of the fees and may be able to make more informed decisions. Additionally, the Alberta Pharmaceutical Association and pharmacists may increase their understanding of the seniors' perspective, which may be incorporated into their policies and practices. This process may also enable these professionals to provide information in a way that is more appropriate for seniors.

A prominent issue throughout all of the discussions was the tendency of physicians to prescribe a 100-day, often referred to as three-month, prescription without consideration of many factors. Factors such as ineffective medications, incorrect prescriptions and allergies caused seniors to terminate prescriptions before the 100-days, resulting in wastage of the medication and the corresponding money used to purchase the medication. This policy stems from an agreement between the Alberta Blue Cross and pharmacies in Alberta. This agreement states that for maintenance and long-term therapy drugs, a quantity of drug for a 100-day period must be dispensed for the Pharmacy to claim one prescription charge. The exception to this guideline is when the prescriber orders a drug

for less than a 100-day period for a specific reason including things such as increased compliance, abuse control and determination of therapeutic effectiveness. In addition, prior approval of Blue Cross is required for a pharmacy to dispense a drug that exceeds the 100-day period.

In response to the problems associated with the 100-day prescription policy, the participants recommended that doctors should provide free samples to seniors until the drug effectiveness for that specific patient was known. Currently samples, or Clinical Evaluation Packages (CEP), are to only be given out by health care practitioners for immediate use (Rx&D, 1999). The intention is that the CEP would be used to determine a patient's clinical response to a product. Rx&D has stated that the number of CEP's provided to a healthcare practitioner will not be considered excessive as long as the healthcare practitioner believes that amount is required for the proper evaluation of clinical response (Rx&D, 1999). The Alberta Pharmaceutical Association is in the process of designing a Trial Prescription program to be implemented in the early summer of 2000. In this program, a prescription is dispensed in two parts: a small quantity initially and, if appropriate, the remainder of prescription (Alberta Pharmaceutical Association, 1999). The purpose of this program is to determine how the patient tolerates and responds to a newly prescribed prescription before obtaining the larger quantity. It is proposed that the government would incur one dispensing fee and the patient the second dispensing fee. The program would decrease drug wastage and improve patient care.

In conclusion, this project employed an empowerment education process in the context of seniors and their medications. The study identified important components of the empowerment education process such as the influence of the code and impact of

specific questions. Further, the discussion identified which of the six empowerment education criteria where met and provides suggestions for why the project was successful at implementing some, but not all, of the criteria. The influences and strategies on seniors' medication-taking practices were presented in a determinants of health framework, to systematize the many influences. These influences provided the context for the three types of strategies recommended by participants including developing personal skills, strengthening community action and building healthy public policy. Finally, policies were discussed as they exist in Alberta in conjunction with models provided by other provinces or with proposed policy changes in Alberta.

Limitations

Validity, through triangulation, was achieved in this study by using multiple sources for information. A weakness was that multiple methods of data collection were not used. Further, participants were not provided the opportunity to reflect on action and act again, thereby limiting the construct validity, 'the reflexivity that builds systematic ways to critically question action and practice and thereby construct knowledge' (Lather, 1991). Finally, catalytic validity, which is established if participants are energized to take action, is limited by the absence of action in this study.

This study was limited by not measuring empowerment as an outcome. Wallerstein (1992) recommends that empowerment should occur on all levels including processes and outcomes of both individual and environmental change. These measurements include self and political efficacies and the perceived ability to help others and participate in community change (Wallerstein, 1992). Measurements of empowerment provide

information on the effectiveness of the intervention as it relates to health, previously defined as being determined by an individual's control.

Friere proposes that the empowerment education process should use a listening-dialogue-action approach to health education. As the focus of this study was on the dialogue phase, the entire empowerment education process was not applied and the overall process was influenced. Had listening occurred with the participants, they may not have questioned topics presented in the video and may have had more of an interest in the outcome of the project. Further, the project did not take action, which hampered the momentum that was built during the discussion. Moreover, the absence of action influenced the dialogue process by influencing the strategies that were created, as the groups were not creating strategies for their own situations, but rather for another group to implement. For example, the participants did not have to make any commitment to following through with the strategies that they created and, consequently, could offer strategies that may be difficult or risky to implement.

The empowerment education process facilitates the incorporation of participants' perspectives on the many areas of underlying influences such as social, economic and political, most of which are interrelated. Considering the influence that the participants have on the outcome of the study, the sample itself presented a limitation to the study as it was a volunteer, self-selected sample. As such, the participants most likely felt comfortable talking about medications and those who had negative experiences may have felt unsure about participating. Further, the groups used in this study were from either community groups or from a lodge and therefore had social support and resources available to them. Moreover, the participants were self-admittedly financially

comfortable and they felt as though they could not comment on economic constraints of low-income individuals. Similarly, there may have been other areas with similar consequences that were not obvious to the participants or the researcher such as these participants may have educated children that were more likely to live apart from their parents and consequently, be less likely to provide support. Finally, the sample may have been more community-minded as the participants were selected based on belonging to an identifiable community. This may have biased their interpretation of the influences and the most effective means of addressing these influences through strategies.

Implications

Practice

As the influences and strategies identified by participants are broad-based and interact with each other, collaboration among sectors is essential in the creation of programs for improving seniors' medication-taking practices. For example, a program that encourages a family-advocate for a senior would have to work with physicians, pharmacists, family, policy-makers and seniors themselves in order to maximize the impact.

The empowerment education process incorporates many levels of influence and, as a result, can have diverse implications. This study may impact the medication-taking practices of seniors and the operation of community organizations, affect the family dynamic and influence the practices of health professionals.

The participants in this project expressed concern over the changing values in society toward double-income, busy families. As a result, the participants felt that seniors had to be independent and take care of themselves. Further, the participants recommended community-level strategies that would improve the medication-taking practices of

seniors. The findings from this study may encourage seniors to use strategies such as a phone-buddy or an advocate to improve or maintain their health. Further, these community-level strategies may have policy-level implications. Moreover, community organizations must understand the important role they play in the health of seniors, a role that may only increase in the future as a result of changing social values. Community organizations may provide the only support for seniors without family or friends.

This study demonstrates the impact that families and societies are having on the health of seniors as we shift toward double income, busy families, who are often geographically removed from aging parents. The results could be shared with families through community organizations such as churches or Family and Community Support Services to help individuals realize the impact they have on the health of other family members and may encourage them to dedicate time and or resources to assist others.

The seniors recommended many ways that professionals could assist in the medication-taking process such as by providing more information on medications, using better communication strategies or improving their attitudes toward seniors. Beyond physicians and pharmacists, health promotion professionals and health educators as well as community development professionals may learn from an overall empowerment education process as it was applied in this study.

This empowerment education process provided insight on how seniors view the many influences on their medication-taking practices. As these influences directly reflect the seniors' perspective, they can be used to assist health care professionals in providing holistic services that address the social, economic and cultural influences among others. For example, based on these findings, physicians and pharmacists may inform seniors

that they are welcome to bring family members to an appointment. Moreover, a physician or pharmacist may wish to give seniors specific directions on what to do if they feel a medication is ineffective. As seniors are interested in drug-related information, professionals may be able to provide information that covers a broad range of factors including the possible cultural and family effects on the medication-taking process or provide guidance on what information is credible.

The findings from this study may motivate health care professionals to reflect on their own practices and attitudes toward seniors and make them more sensitive to the needs of seniors. For example, physicians may use more effective vocabulary, understanding that seniors may not understand their current choice of words and that seniors may not ask questions for fear of sounding 'stupid'.

This study employed an empowerment education intervention based on a socioenvironmental approach and the results outlined the broad influences on the medication-taking practices of seniors. This project has demonstrated the value of an empowerment education approach above those using traditional educational programs. Specifically, the ability of this approach to incorporate the broad influences and the respective strategies as well as the stakeholder's perspective. This study demonstrates the value of this approach to health promotion professionals and health educators and encourage its use. In addition, the findings regarding the empowerment education process outlines the areas that are sensitive and complex to implement such as participation and empowerment and may inform these professionals on more effective ways to address these areas.

The results from this study have demonstrated the importance of community and the significant role it can have in influencing health, especially as families are becoming less cohesive. These findings could inform community development professionals or even municipal planners of the importance of community organizations and facilities such as community leagues, community meeting places, seniors centres and local health centres.

The influences and strategies developed out of this project provide background information for policy development. Many of the strategies with policy-implications were being implemented in other provinces or were under consideration in Alberta. The findings from this study confirm the importance and relevance of these policies and can provide the seniors' perspective on the policy-related issues.

Research

This project demonstrated one design for applying an empowerment education approach. Comments on the effectiveness of the questions, the benefits of a planning meeting and two focus groups as well as the implications of using a code all combine to provide an example design for future researchers. The discussion provided regarding the strengths and weaknesses of this design will allow future researchers to exploit these strengths and improve upon the weaknesses.

The empowerment education approach incorporates participants' perspectives on the underlying causes of an issue. As such, it would be beneficial to apply the same topic, i.e. medication-taking, with other groups of participants who are either younger in age or using seniors with varying backgrounds, such as low income or isolated seniors. This would provide insight into how effectively empowerment education captures the

participants' perspectives. Moreover it would discern how sensitive the empowerment education process is to the study population and the variable underlying influences.

A study design that applies the empowerment education process in entirety, i.e. listening, dialogue and action, would provide additional information on how these components are linked within the empowerment education process. It would also provide information as to what resources and processes would actually be needed to ensure these variables were completely exercised. A follow-up program that measured knowledge and behavior change would help to determine the effectiveness of an empowerment education process. Although measuring knowledge and behavior change is more consistent with behavioral change than a socioenvironmental approach, it would provide valuable information about personal empowerment. Further, an empowerment education approach works through various means, including creating supportive environments and influencing policy, to ultimately change behavior. Additionally a follow-up program could assess the changes in individual, community and policy-level variables that resulted from the project.

Future studies may investigate the role of the researcher and the tensions that exist between the researcher, the group and the empowerment education process. These tensions may include the agenda and timelines imposed by the researcher, the level of commitment the participants are willing to provide and level of participation demanded by empowerment education. Insight on these tensions may provide valuable information on how investigators can minimize them and maximize the potential of an empowerment education study.

Based on the literature concerning empowerment education and the overall process described in this discussion, it is recommended that future empowerment education studies use the six criteria including listening, dialoguing, participating, empowering, acting and being reflexive, or praxis, in both the design and the reporting of the project. The literature and the results from this study have demonstrated the importance of each component and provide evidence that they are linked. Reporting on empowerment education project using the six criteria as a framework will provide insight into how others interpret and apply the same components. As such, this will also demonstrate how effective each different application is. Specific to participation, Labonte (1993) provides criteria for participation that could serve as a framework to ensure participation is maximized and can further be used to reflect on, and evaluate, the level of participation upon completion of the study. Finally, the six criteria would provide a framework for evaluating the integrity of future studies.

Conclusions

The project met the objective of demonstrating an empowerment education process with seniors and their medications. The project did not meet all of the specific criteria of an empowerment education process but demonstrated the implications surrounding the application of this approach and provided information that enhances the current literature. The study provides an example of how the components of the overall process can be interpreted and applied as well as where problematic situations arise.

The empowerment education process is an effective tool for uncovering the comprehensive underlying influences on an issue, many of which are interrelated. The process is effective at incorporating the participants' perspectives to create strategies that

specifically address the issues important to the participants in the context of their own lives and, as such, may diminish the research-practice gap that can exist with other study methods. The empowerment education process can create effective strategies for change that incorporate the socioenvironmental approach influences on health. Finally, the empowerment education process can create strategies at the policy-level that influence the daily lives of individuals, leading to meaningful policy development.

The project met the second objective of identifying strategies to improve the medication-taking practices of seniors. These strategies are comprehensive, incorporate the many underlying influences on the medication-taking process and stem directly from the seniors' perspective. As such, the strategies are realistic in the personal context of the seniors' lives because they reflect the specific setting of the participants. Further, the strategies highlight the areas of key concern from the seniors' perspective such as the economic burden of medication and the changing family dynamics. Finally, these strategies demonstrate the effectiveness of an empowerment education process to address and incorporate the sociological and environmental influences on health-related issues, specifically seniors' medication-taking practices.

This project demonstrated the heterogeneity of the senior population by identifying some key differences in the way the groups reacted to the empowerment education process. It is unclear however, if the group of participants from the lodge were less receptive to the process because they lived in a lodge, for example were influenced by their surroundings, or because the individuals who may be less receptive to the process chose to live in the lodge.

References

Alberta Community Development (1999). Programs for seniors. Alberta Community Development Seniors Services Division.

Alberta Pharmaceutical Association (1999). [On Line], Available: www.altapharm.org/

Alberta Pharmaceutical Association (1999). Communications.... October, 1999.

Anderson, R. M., Funnell, M., Butler, P. M., Arnold, M. S., Fitzgerald, J. T., & Feste, C. C. (1995). Patient empowerment. Results of a randomized controlled trial. Diabetes Care, 18(7), 943-9.

Ascione, F. J., & Shimp, L. A. (1984). The effectiveness of four education strategies in the elderly. Drug Intelligence and Clinical Pharmacy, 18, 926-31.

Askari, E., & Mehring, J. (1992). Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome training from a union perspective. American Journal of Industrial Medicine, 22, 771-720.

Ashton, J., Grey, P., & Bernard, K. (1986). Healthy cities: WHO's new public health initiative. Health Promotion 1, 319-324.

Asparasu, R., & Fliginger, S. (1997). Inappropriate medication prescribing for the elderly by office-based physicians. The Annals of Pharmacotherapy, 31, 823-829.

British Columbia Health (1999). [On Line], Available: www.hlth.gov.bc.ca

Bergob, (1996). Drug use among senior Canadians. [On-line], Available: www.statcan.ca:go/english/ads/11-008-XIE/drugs.html

Bloom, J. A., Frank, J. W., Shafir, M. S., & Martiquet, P. (1993). Potentially undesirable prescribing and drug use among the elderly. Canadian Family Physician, 39, 2337-2345.

Borgsdorf, L. R., Miano, J. S., & Knapp, K. K. (1994). Pharmacist-managed medication review in a managed care system. American Journal of Hospital Pharmacy, 51(6), 772-7.

Brown, C. M., & Segal, R. (1996). The effects of health and treatment perceptions on the prescribed medication and home remedies among African Americans and white American hypertensives. Social Sciences & Medicine, 43 (6), 903-917.

Canadian Pharmaceutical Association (1998) Just Checking...Am I getting the most for my medications? Canadian Pharmaceutical Association [Brochure].

Chaiton A, Spitzer W, & Delmore T. (1976). Patterns of medication use - a community focus. Canadian Medical Journal, 114, 33-7.

Chubon, S. J., Schultz, R. M., Lingle, E. W., & Coster-Schultz, M. A. (1994). Too many medications, too little money: How do patients cope? Public Health Nursing, 11(6), 412-5.

Cockburn, J., & Pit, S. (1997). Prescribing behavior in clinical practice: patients' expectations and doctors' perceptions of patients' expectations--a questionnaire

study [see comments]. BMJ, 315(7107), 520-3.

Cohen, J. (1986). Pharmacokinetic Changes in Aging. American Journal of Medicine, 80 (851), 31-38.

Coons, S. J., Sheahan, S. L., Martin, S. S., Hendricks, J., Robbins, C. A., & Johnson, J. A. (1994). Predictors of medication noncompliance in a sample of older adults.

Edwards, M., & Pathy, M., (1986). Drug counseling in the elderly and predicting compliance. Practitioner, 228, 291-300.

Elias, J., Yassl, A., Kennedy, T., & Andres, S. (1992). Implementing Right-To-Know legislation for health care workers in Manitoba: a bipartite sectoral train-the-trainer approach. American Journal of Industrial Medicine, 22, 729-737.

Epp, J. (1986). Achieving health for all: A framework for health promotion. Report of the Minister of National Health and Welfare, Ottawa, Canada.

Farris, B., Cox, C., Parmar, J., & Rolfson, D. (1999). [Developing a medication review program via Listening-Dialogue-Action with seniors and health care providers] Unpublished data.

Friere, P. (1970) Pedagogy of the Oppressed. Seabury Press, New York, 1970.

Gremonpre, R., Mitenko, P, Sitar, D., Aoki, F., & Montgomery, P. (1988). drug-associated hospital admissions in older medical patients. Journal of the American Geriatrics Society, 36, 1092-1098.

Guba, E., & Lincoln, Y. (1981). Effective Evaluation. San Francisco, Jossy-Bass, 1981

Hart, E., & Bond, M. (1996). Making sense of action research through the use of typology. Journal of Advanced Nursing, 23, 152-159.

Hawe, P., & Higgins, G. (1990). Can medication education improve the drug compliance of the elderly? Evaluation of a Hospital Program. Patient Educ Couns, 16, 151-60.

Hawe, P. (1994). Capturing the meaning of "community" in community intervention evaluation: Some contribution from community psychology. Health Promotion International, 9(3), 199-210.

Health Canada. (1996). Medication Matters [Brochure]. Division of Aging and Seniors.

Health Canada (1998). Taking action on population health. Population Health Promotion Division.

Health Canada (1999). Population Health Fund, the determinants of health. [On Line], Available: www.hc-sc.gc.ca/hppb/phdd/pophealthfund/funddeterm.htm

Henderson, D. (1995). Consciousness raising in participatory research: Method and methodology for emancipatory nursing enquiry. Advances in Nursing Science, 17(3), 58-69.

Labonte, R. (1986). Social inequality and healthy public policy. Health Promotion, 1(3), 341-351.

Labonte, R. (1993). Issues in health promotion series. Toronto: Center for Health Promotion , University of Toronto & ParticipACTION.

LaMontagne, a., Kelsey, K., Ryan, C., & Christiani, D. (1992). A participatory workplace

health and safety training program for Ethylene Oxide. American Journal of Industrial Medicine, 22, 651-664.

Lamy, P. (1989). Nonprescription drugs and the elderly. American Family Physician, 39(6), 175-179.

Lamy, P. (1990). Adverse drug effects. Clinics in Geriatric Medicine, 6, 293-307.

Lather, P. (1991). Getting Smart: Feminist Research and Pedagogy with the Postmodern. New York: Routledge, Chapman & Hall.

Lexchin, J. (1990). Drug makers and drug regulators: Too close for comfort. A study of the Canadian situation. Social Science and Medicine, 31(11), 1257-1263.

Lexchin, J. (1993). Effect of generic drug competition on the price of prescription drugs in Ontario. CMAJ, 148(1), 35-8.

Lexchin, J. (1995). Cost effective pharmaceutical care for the elderly and the formulation of pharmaceutical policy in Canada. Health and Canadian Society, 3(1/2), 119-33.

Lugo, N. R. (1996). Empowerment education: a case study of the Resource Sisters/Companeras Program. Health Education Quarterly, 23(3), 281-9; discussion 290-2.

Luskin, J., Somers, C., Wooding, J., & Levenstein, C. (1992). Teaching health and safety: Problems and possibilities for learner-centered training. American Journal of Industrial Medicine, 22, 665-676.

MacDonald, E., MacDonald, J., & Phoenix, M. (1977). Improving drug compliance after

hospital discharge. British Medical Journal, 2, 618-21.

Maddigan, S.M., Farris, K.B., & Johnson, J.A.(1999).Methods of educating the public and pharmacists on prescribing, monitoring and use of drugs. (Working Paper 99-10). Edmonton, Canada: Institute of Health Economics.

McKinlay, J. (1992). Health Promotion through healthy public policy: The contribution of complementary research methods. In Health Promotion: An anthology, pp 54-67. Washington: Pan American Health Organization.

McQuiston, T. H., Coleman, P., Wallerstein, N. B., Marcus, A. C., Morawetz, J. S., & Ortlieb, D. W. (1994). Hazardous waste worker education. Long-term effects. Journal of Occupational Medicine, 36(12), 1310-23.

Meyer M, & Schuna A. (1989). Assessment of geriatric patients' functional ability to take medication. Drug Intelligence and Clinical Pharmacy, 23, 171.

Michaels, D., Zoloth, S., Bernstein, N., Kass, D., & Schrier, K. (1992). Workshops are not enough: making Right-To-Know training lead to workplace change. American Journal of Industrial Medicine, 22, 637-649.

Miles, K. (1992). Use of participatory training techniques in a Right-To-Know Train-The-Trainer course for New Jersey public employees. American Journal of Industrial Medicine, 22, 721-727.

Millar, W. J. (1998). Multiple medication use among seniors. Health Reports, 9(4), 11-7(Eng.); 11-8(Fre).

Millar, W. J. (1999). Disparities in prescription drug insurance coverage. Health Reports, 10(4), 11-21.

Minkler, N. (1985). Building supportive ties and sense of community among the inner-city elderly: The Tenderloin Senior Outreach Project. Health Education Quarterly, 12 (4), 303-314.

Minkler, N. (1989). Health education, health promotion and the open society: An historical perspective. Health Education Quarterly, 16(1), 17-30.

Morse J., & Field, P. (1995) Qualitative Research Methods for Health Professionals (2nd ed.). London, England: SAGE Publications.

O'Donnell, M. (1996). Definitions of Health Promotion. American Journal of Health Promotion 1, 4-5, 1986.

Pal, Leslie. (1997). Beyond Policy Analysis. Scarborough, Ontario: International Thomson Publishing.

Pharmaceutical Manufacturers Association of Canada. (1994). Knowledge is the best medicine [Brochure].

Roden, S., Harvey, P., Mayer, P., & Spence, L. (1985). Evaluation of two techniques to improve drug compliance in the elderly. Journal of Clin Exp Gerontol, 7, 71-82.

Ryan, A. A. (1998). Adult/Elderly care nursing. A systematic approach to self-medication in older people. British Journal of Nursing, 7(9), 528.

Rx&D (1999). [On Line], Available: www.canadapharm.org

Sandelowski, M. (1986). The problem of rigor in qualitative research. Advances in Nursing Science. 8(3), 27-37.

Schofield, R. (1998). Empowerment education for individuals with serious mental illness. Journal of Psychosocial Nursing & Mental Health Services. 36(11), 35-42.

Scott, A., Shiell, A., & King, M. (1996). Is general practitioner decision making associated with patient socio-economic status? Social Science & Medicine. 42(1), 35-46.

Smith, S., Willms, D., & Johnson, N. (1997). Nurtured by Knowledge. Learning to do Participatory Action-Research. New York: Apex Press.

Steckler, A., Allegrante, J., Altman, D., Brown, R., Burdine, J., Goodman R, & Jorgensen C. (1995). Health education intervention strategies. Health Education Quarterly. 22(3), 307-328.

Taira, F. (1991). Teaching independently living older adults about managing their medications. Rehabilitation Nursing. 16(6), 322-6.

Tamblyn, R., & Perreault. (1995). [On-line], Available: http://wwwnfh.hcgc.gc.ca/publicat/execsumm/tamblyn.htm

Tamblyn, R., McLeod, P., Abrahamowicz, M., Monette, J., Gayton, D., Berkson, L., Dauphinee, W., Grad, R., Huang, A., Isaac, L., Schnarch, B., & Snell, L. (1994). Questionable prescribing for elderly patients in Quebec. CMAJ. 150(11), 1801-1809.

Tindall, W., Beardsley, R. & Kimberin, C. (1994). Communication skills in pharmacy practice (3rd ed.). Malvern, Pennsylvania: Lea & Febiger Publications.

Travers, K. D. (1997). Reducing inequities through participatory research and community empowerment. Health Education & Behavior, 24(3), 344-56.

Vuckovic, N., & Nichter, M. (1997). Changing patterns of pharmaceutical practice. Social Science and Medicine, 44 (9), 1285-1302.

Wallerstein, N. (1992). Powerlessness, empowerment, and health: Implications for health promotion programs. American Journal of Health Promotion, 6(3), 197-205.

Wallerstein, N., & Bernstein, E. (1988). Empowerment education: Freire's ideas adapted to health education. Health Education Quarterly, 15(4), 379-94.

Wallerstein, N & Sanchez-Merki, V. (1994). Frierian praxis in health education: research results from an adolescent prevention program. Health and Education Research, 9 (1), 105-118.

Wallerstein, N., & Weinger, M. (1992). Health and safety education for worker empowerment. American Journal of Industrial Medicine, 22, 619-635.

Wang, C., & Burris, M. A. (1994). Empowerment through photo novella: portraits of participation. Health Education Quarterly, 21(2), 171-86.

Webster's Ninth New Collegiate Dictionary (1991). Thomas Allen & Sons, Markham, Ontario.

World Health Organization (1986). Ottawa charter for health promotion. Ottawa: Health and Welfare Canada.

Appendix A

Study Information Sheet

Demonstrating an Empowerment Education Process with Seniors and their Medications

Principal Investigator:
Jennifer Hystad, B.Sc.
Co-Investigators:
Karen B. Farris, Ph.D.
Anne Neufeld, Ph.D.
Sandra O'Brien Cousins, Ph.D.

Background:
Seniors take more medicines than many younger people do. Because your body changes as you get older, there may be problems with the medication you get from you doctor or pharmacist. Some natural products can even cause problems. Talking with seniors about how to improve their medicines and the effects of their medicines may create new ideas and may help others.

Purpose:
You are being asked to take part in a study that will describe ways to improve seniors' medication-taking behavior. These ideas will be presented to seniors' groups and they may wish to use them to help other seniors.

Participation:
Participation will include:
1. Filling out a survey that asks you about things like you age, sex and where you live. You should not put your name on the survey.
2. Taking part in two discussion groups over the course of about four weeks.
3. Watching a 2-minute video that describes common problems seniors have with their medications.
4. Each group discussion will be audio taped-recorded so that we can type it up later.

Possible benefits:
The possible benefits are that your ideas may be used by organizations to help other seniors improve their medication management.

Possible risks:
The possible risks are that you may not feel comfortable sharing your ideas with others in the discussion group.

Confidentiality:
Everyone will be told that the discussions will be kept confidential. That means that you should not discuss this session with anyone else outside of the group. The information

that you give us will be kept confidential. The survey that you answer will not have your name on it and the transcripts of the discussion will not have any names or other things that may identify you. The audiotapes of the discussion, the transcripts and the surveys will be kept in a locked cabinet that only the research team has access to for a period of seven years.

Freedom to withdraw:
We would be grateful if you would help us with this study. If, for whatever reason, you do not want to be in the study anymore, you are free to withdraw at any time. You do not have to answer any questions that you do not want to.

Future Research:
There is a chance that the information you give us could be used in a future study. If we want to use the information you give us for another study, we have to get ethical approval from the University.

Additional Information:
If you have any concerns about the process, please contact Patient Concerns Office of the Capital Health Authority at 474-8892. This office is not related to the research team.
If you have any questions about the project itself, please contact Jennifer Hystad at (780) 487-5398.

Faculty of Pharmacy and Pharmaceutical Sciences
University of Alberta
Edmonton, AB
T6G 2N8

Investigators:
Jennifer Hystad, B.Sc. 487-5398

Researcher Initials: _____
Participant Initials: _____

Appendix B

Informed Consent Form

Part 1:

Title: Demonstrating an Empowerment Education Process with Seniors and their Medications

Principal Investigator(s):
Jennifer Hystad, B.Sc.
Co-investigator(s):
Karen B. Farris, Ph.D.
Anne Neufeld, Ph.D.
Sandra O'Brien Cousins, Ph.D.

Part 2 (to be completed by the research subject):

Do you understand that you have been asked to be in a research study? Yes No

Have you read and received a copy of the attached information sheet? Yes No

Do you understand the benefits and risks involved in taking part in this research study? Yes No

Have you had an opportunity to ask questions and discuss this study? Yes No

Do you understand that you are free to refuse to participate of withdraw from this study at any time? You do not have to give a reason. Yes No

Has the issue of confidentiality been explained to you? Yes No

Do you understand who will have access to the information that you provide? Yes No

Do you understand that the group meetings will be tape recorded? Yes No

This study was explained to me by: _____

I agree to take part in this study.

Signature of Research Participant _____

Printed Name: _____

Date: _____

Witness: _____

Printed Name: _____

Date: _____

I believe that the person signing this from understands what is involved in the study and voluntarily agrees to participate.

_____ _____

Signature of Investigator or Designee Date

Appendix C

Demographic Questionnaire

1. **Sex (please circle)** Male Female

2. Education
a. Grade 8 or lower
b. Some high school
c. High school graduate
d. Some college
e. College or professional degree

3. How many **prescription medicines** do you currently take?

4. How many **nonprescription medicines** do you currently take (e.g. vitamins, minerals, laxatives, cold & cough medicines)?

5. How many **natural or homeopathic remedies** do you currently take (e.g. grape seed extract, ginkgo, ginseng)?

6. What **other remedies or medicines** do you take for your health?

7. Who, if anyone, **helps you** with your medicines? (Circle all that apply)
a. Family member (including spouse or partner)
b. Neighbor/ friend
c. Home care
d. No one
e. Other, please specify _____

8. Which term best describes the place where you live?
a. House
b. Apartment
c. Lodge
d. Other, please specify _____

9. Your first language is _____

Appendix D

Video Script

Character 1: Do you have trouble with your medications?

Character 2: What do you mean?

Character 1: I feel like I take too many medications see... (holds up a bag of medications) I've got pills for my heart, my arthritis and my stomach and my sleep and my blood pressure...I feel like a pill factory and my daughter is very worried about it too... She's even talked to my pharmacist.

Character 2: How did you get so many medications, did your doctor prescribe them to you?

Character 1: First of all I go to more than one doctor 'cause I've got my heart doctor and then my doctor for my knee pain. And then, every time I go see my family doctor for something, it seems like she gives me another pill to take. That gets expensive too.

Character 2: Yeah, I know – I've got Blue Cross – I mean we all do, but I have to pay $25 for several of my drugs, that adds up.

Character 1: Yeah, see what I mean?

Character 2: Why don't you talk to your doctor about it and see if you can try some natural stuff?

Character 1: She's just so busy, she doesn't have time to spend with me.

Character 2: What about your pharmacist?

Character 1: Every time I go into the pharmacy, someone different helps me. They don't even know who I am and they just think I'm a cute little old lady.

Character 2: Well, my pharmacist is pretty nice, she packages my pills in those dosette things – where they're laid out each week. Those prescription labels are so tiny I like my dosette.

Character 1: I just line my bottles up and arrange them around my meals and snacks.

Character 2: Yeah, that works too, I used to do that. You know what?

Character 1: What?

Character 2: Sometimes I have trouble getting them out of my dosette.

Character 1: Yeah, I know. And sometimes if I don't feel bad, I'll skip a dose – I hate taking so many pills.

Character 2: I just don't know what to do about it

Character 1: I just feel like I need to have control over them. No one else knows how I feel. And what if someone makes a mistake, if I don't know, who will?