AN EXPERIMENTAL STUDY OF FACTORS RELATED TO PARTICIPATION IN HEALTH AWARENESS WITH SENIORS BETWEEN AGES OF 60 TO 75

by

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ABSTRACT

Society's dramatically mounting population of Seniors is creating a demand to increase our knowledge of senior health program participation and of what promotes 'Healthy Aging'. This thesis is concerned with factors that affect seniors' participation in health promoting programs. There are two distinct aspects to this study, one is an experiment and the other is a survey.

The experiment component of the thesis predicts that potential program participants' giving advice on a projected program topic, more than giving information will increase self-esteem, internal locus of control and thus program participation. The survey aspect of the thesis is designed to discover other factors which affect participation and health concerns. The project deals with psychological constructs such as locus of control, self-esteem and life satisfaction put to the use of social work concerns such as increasing program participation, health awareness and resource use.

One hundred and twenty persons aged 60-75 were randomly selected from the files of Matsqui-Abbotsford Community Services and randomly assigned to 3 groups of 40 persons each. Group 1 & 2 were administered Wallston & Wallston & DeVallis' Multidimensional Health Locus of Control Scales and Rosenbergs'Self-Esteem Scale before and after the two

experimental interventions of giving advice or information on the same health topics. Both groups also responded to Diener & Emmons & Larsen & Griffin's Life Satisfaction Scale, Chapin's Organizational Participation Scale and some questions about family, friends, smoking, health and demographics. Group 3, the control group, was not interviewed. After regular intervals all groups were invited to participate in three progressively involving 'Healthy Aging' pursuits.

Statistical analysis does not support the hypothesis that giving advice increases self-esteem, life satisfaction, participation or 'internality' of health locus of control. Participation in formal organizations correlates with other forms of sociability and knowledge about prevention, while smoking co-relates positively with social isolation. Health internality is associated with greater self-reported health, life satisfaction, more contact with family and not associated with sociability outside of the home.

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INTRODUCTION

The aged in our society are increasing in proportion to other segments of the population. The "Greying" of Canada is a genuine phenomenon substantiated by the most recent statistics on the elderly in Canada. According to Denton, Feaver and Spencer in Marshall's Aging in Canada (1987), the proportion of those aged 65 and over will rise to 13.6% of the population in 2001 and to 29.1% of the population by 2051 (with decreasing fertility figures). The ratio of elderly in the Canadian population will double in the next 50 years.

Fellegi, the Chief Statistician of Canada, in the feature article "Can We Afford An Aging Society", October, 1988, Canadian Economic Observer, maintains that dealing with the impact of this increase in the number of aged will require far-reaching changes in all of society. These changes will be relatively expensive in terms of the three major social programs: health, education and pensions. With diminishing fertility rates the future productivity sector is not growing quickly enough to support needed growth in social programs.

Planning for an aging society might include strategies such as raising immigration quotas and eliminating compulsory retirement at age 65. There are strong indications that people are not only living longer, but are remaining healthy and productive far longer (Stone and Fletcher, 1986).

Fellegi goes on to say that the elderly will "undoubtedly carry an enhanced weight in politics which might well result in more attention to those policies which are of interest to them" (Fellegi, 1988, p. 4).

Fellegi points out that because health care costs may increase substantially, the government must focus on prevention of illness and indeed prevention has become a federal government priority. A preventative approach is compatible with the desires of the elderly who, in the main, wish to remain independent and healthy as long as possible, out of institutions and within their own homes (Fiske, 1987).

How can are we encourage such independence? Selby and Schechter (1982) point out that there is a pressing need to consider self-help programs so that the elderly can participate in maintaining their own health.

What are the current participation patterns for seniors like in Canada for most group activities? McPherson & Kozlik (1987) summarize the question:

> Nevertheless there are a few cross-sectional national studies that support the almost universal finding that the reported frequency of involvement is lower for older age groups in most leisure activities, voluntary association involvement and attendance at cultural events (McPherson & Kozlik, 1987, p. 211).

How can we promote self-started health initiatives if current senior group participation is limited? Is the cultivation of self-help groups a worthwhile use of scarce governmental resources? Could the role of social workers be expanded to champion these types of initiatives?

A concern in this conservative era, is that if social workers shift their efforts to advancing service delivery through charity and self-help groups that there might be fewer persons reached than there would be by entrenched and institutionalized social programs (Schilling, Schinke & Weatherly, 1988). It is possible, however, that social workers can define for themselves an additional valuable role in developing alternate workable service delivery strategies which strive to develop self-determinism in the elderly and assist them to act more on their own behalf as individuals and subsequently as groups, with such programs seen as an adjunct to more formal social welfare programs rather than as a replacement.

The problem may *seem* to be that we have a larger number of elderly persons than the rest of society, (with its declining resources) can adequately support. However, the main obstacle may be, rather, that seniors are currently a disadvantaged group in terms of power. The elderly have been deprived of autonomy and authority, by virtue of the demands of an industrialized society which has relegated the old to the position of unemployed, ignored and dependent.

The elderly, if allowed to remain in the work force and/or achieve political clout, may soon be in a position to assume roles of advisers and autonomous directors of their own circumstances, ultimately benefiting both the community and the individual elderly person.

How do we propose to encourage and promote this process? Would giving seniors opportunities to express their views, communicate their opinions, suggestions and advice, empower them? Would empowerment increase self-determination in matters of personal health, self-education and group participation?

As we will see in this subsequent Abbotsford study, the concept of "empowerment" is not a simple one. If a senior is given the opportunity to give advice, does this experience increase empowerment? Is there a need for advice givers to feel that the advice will be heeded? Need they feel that they know their subject well and that they have made a valuable contribution with their advice? Does asking people to give advice upon topics they are unfamiliar with increase their curiosity to learn more about the subject or will they feel that the topic is associated with embarrassment and not to be pursued? These questions are addressed in the following study where the tool of giving advice is evaluated for its effect on self-esteem, increasing locus of control and promoting participatory behaviors.

CHAPTER 1: BACKGROUND LITERATURE REVIEW

In this chapter we will look at the factors which affect formal group participation, at why participation and involvement in the elderly is important, at the association of "locus of control" to participation, at correlates of "internality" and at the implications for participation of increasing internality of locus of control.

Before discussing the concepts crucial to this survey/experiment, the definition of the main terms and concepts are introduced in the following section.

Definition of Terms and Concepts

Participation

Participation can be defined as involvement and contribution in one modality or another, with money, time, energy, skill, knowledge, support or commitment. Participation is characterized by input and can vary in intensity and frequency.

In this thesis participation is operationalized as follows: The respondents were invited to participate in three ways after they were interviewed. Two weeks after the interview the interviewed persons and a randomly selected person from the pool of Group 3, (control group) were mailed an invitation to return the bottom of a letter, to the Community Services in order to receive a free booklet on Healthy Aging. Two weeks after this

the respondents were mailed a letter asking them to return the bottom of the page if they wished to be put on the mailing list of a Healthy Aging group. Again, two weeks after this they were mailed an invitation to attend a Healthy Aging group meeting. These three invitations were considered to be incremental participatory steps and each step was given increasing weight. Ordering a free booklet was deemed to be worth 1 point for participation. Choosing to be placed on a mailing list was considered to earn a score of 2 in participation and attending a meeting was awarded a score of 3 for participation.

Cognitive Dissonance

Festinger created a theory, which essentially maintains that people are uncomfortable with "cognitive dissonance" which is a discrepancy between their different beliefs, values or behavior. If people experience this "dissonance" they will attempt to correct the discrepancy by changing their behavior or beliefs so that thought and action are congruent (Baron & Byrne, 1984).

Locus of Control

J. B. Rotter devised a scale for measuring a person's attitude in relation to how his/her actions are perceived to relate to outcomes. Persons who believe that they have some control over their destinies are labelled as "internals" and those who believe that they themselves do not control outcome as much as fate, luck, chance, powerful others and unpredictable forces, are deemed to be "externals".

Most research so far points to the fact that internals who demonstrate internality, achieve their goals more satisfactorily, than do externals who seem handicapped by their beliefs, (or who have developed their beliefs because of the problems in their lives) (Robinson & Shaver, 1973).

This congruence between success and the belief system of internals and less success and the belief system of the externals is possibly an example of Festinger's theory of "cognitive dissonance" (Baron & Byrne, 1984). Those who imagine the power resides within themselves will act accordingly and thus increase the chances of furthering situations to their advantage. Those who do not believe the power lies within themselves may give up before they can change a situation. Thus both the beliefs and actions of internals and externals and the way they feel the world works, would be consonant and not dissonant.

Self-Esteem

Rosenberg defined self-esteem as self-acceptance, self-regard and a feeling of self-worth which is the opposite of self-abnegation. He developed the self-esteem scale used in this project.

Empowerment

Persons who are "empowered" feel that they have control over the possibility of furthering situations to their advantage. Social workers can empower people in a great number of ways, but

the underlining principle is to approach their clients, in a manner which restores or maintains the clients' self-respect and dignity and gives them a sense that they can control the events of their lives. This approach also entails handing over the reins of power, as described by Kuypers and Bengston, (as cited in Barrow & Smith, 1983) to "increase their involvement, their control, their power, and thus enable them to develop greater self-confidence" (p. 85).

Advice-Giving and Consultation

In the context of this project, giving advice is responding to the queries of the researcher, which are couched in the form of "Could you give some suggestions, or advice about such and such a program".

Hopefully, giving advice increases the sense of internality of locus of control, as opposed to simply giving information. Because internality of locus of control is increased, participation may be more likely.

According to Arnstein (as cited in AIP Journal, 1969), giving advice is closer to citizen control and participation than merely giving information although the difference may not be a large one.

Giving Information

In this research project giving information refers to the type of questions the researcher uses with a participant in the study upon a selected topic, such as "Who would you contact if you had questions about healthy nutrition?". Giving information is to be differentiated in this study from giving advice where the researcher asks the respondent "What would you advise is needed to ensure that seniors get healthy nutrition that will keep them well?"

Prevention Oriented

For the purposes of this study, those who are prevention oriented are conversant with the topic of "prevention" and healthy aging. In the project itself, one of the ways the concept of prevention was operationalized was to ask the respondents if they both recognized the concept of "wellness or prevention" and had noticed or bought the "Prevention" magazine strategically placed near several check-out counters in large supermarkets. This was based on the assumption that those who are prevention oriented generally take a pro-active interest in their personal health and seek out information about health promoting practices.

Participation and the Elderly

The principal factors cited by McPherson & Kozlik (1987) which affect participation in the elderly, as supported by studies on the subject are presented in rank order:

> For the younger cohort of elderly residents (62-74), the most frequently cited barriers were: being too busy, health, expense and distance to the activity (Hoffman, 1985a:4) (cited in McPherson & Kozlik, 1987 p. 224).

On senior participatory behavior, from compiling the literature, we also know, that the type of dwelling, gender, culture, length of residency in the area, education, past occupation, social class, marital status, past participatory patterns, amount of recent personal loss, amount of family visiting, neighborliness, sense of personal control, self-esteem, personality traits, religious affiliation and types of activities available, all exert varying degrees of influence on how frequently, with what type of intensity and with what results, elderly persons take an active part in the programs and activities available to them (McPherson & Kozlik, 1987; Cutler, 1987).

It was necessary to focus on only specific variables for the purposes of this limited study, but as many as possible of the above mentioned plethora of variables which exert diverse pressures on participatory patterns were included in the study in regards to the topic on healthy aging.

Why is Participation Important?

We may not have decisive proof that participation is generally beneficial, but we do know that social isolation has a negative effect on some groups of the aged, notably on those who

are involuntarily isolated: the recently widowed, (Bennett, 1980) the newly arrived, those who have gradually lost social contacts because of the relocation of family, friends and colleagues and those with impaired health.

The effects of isolation for those who wish to be with others are multifold. Loneliness and consequent depression may impair the individual's motivation to reach out. If the loneliness persists after a precipitating event, the effect can lead to demoralization (Sherman, 1985) and eventual depression. Both loneliness and depression may have an adverse effect on physical health and also those elderly persons with mental health impairment do the worst in or out of care. Furthermore, prolonged isolation atrophies the requisite social skills for making friends and keeping them. Not only does the isolated person become insensitive to crucial social cues, he/she begins to live in an "out of date" world where new information is not exchanged and conversation becomes stilted and rigid (Bennett, 1980).

Bennett (1980) determines that certain patterns of isolation are more deleterious than others, although any prolonged isolation from social interaction is found to be measurably negative for most ensuing interactions, especially if the isolated person is subsequently institutionalized, a situation where interactive skills are mandatory for integration.

The involuntarily isolated seem the most amenable to intervention in terms of socialization according to Bennett. Those seniors who live alone in apartments tend to go out to socialize significantly more (Weaver, 1984), versus those who live in shared accommodations, signifying a need for those who are more isolated to reach out.

According to Norris (1987) not all social participation, especially in non-intimate relationships is deemed beneficial. Blunt (1982) reported in a study on participation and social stress and health, that although health was positively associated with learning, participation in formal social organization had "decremental effects" upon health. Other studies done with elderly participation in religious activities, however have demonstrated wide-spread positive benefits (Cutler, 1987).

If participating in organizations is not always a satisfactory experience it may be connected with the lack of leadership and control which some persons experience in organized activities. Older persons do not often take leadership roles in formal organizational settings and consequently may find that although certain social needs are met, their sense of self-worth is not increased. This is an area in which researchers feel there is need for further study (Cutler, 1982). In non-industrialized societies, the elderly participate readily and with positive effects in the local groups, because their power, position, contribution and significance is assured and felt to be

useful, conditions which signify internal locus of control criteria.

Cicirelli (1987), in reviewing the studies done with aging and locus of control, (high internal locus of control is associated with a strong feeling of having the power to effect change from within) associates social participation with internality of control.

Perceived control in the community or neighborhood is associated with neighborhood organizational participation. According to a study done in 1984, by Ainlay, perceived control was found to have more impact than attachment to the neighborhood, on the dependent variable of participation. In fact, perceived control not only had direct effects on participation but also had a positive effect on affective attachment to the neighborhood.

If we can extrapolate this to programming for seniors could we hope to assume that having seniors gain perceived control would increase not only their participation, but their sense of community as well?

Old Age and Locus of Control

According to some studies, internal locus of control increases with age, at least up until the sixties (Knoop, 1981; Dolphin, 1986). Those who are from approximately the age of 50

to retirement age, often have a highly developed internal locus of control (Drobnies, 1984). This is likely because internal locus of control is positively associated with the male gender, better education, higher income, more self-esteem, more job involvement, more job satisfaction and less job alienation. Later middle age increases the opportunities for several of these parameters to become operable.

On the other hand, if the factors of jobs, gender and income affect locus of control and there is also evidence that locus of control can be manipulated with relevant variables (Hudson, 1983); Jackson, 1980; Reakes, 1979), than it makes sense that those who are retired (mostly women, with no jobs and lower income) would experience a decrease in internal locus of control.

Has this relationship of increasing internal locus of control up until retirement been shown to revert significantly after retirement? Again the results are conflicting and little research has been done in the area of locus of control and the aging. More research is needed in this area. According to Cicirelli (1987), in his overview of the studies on age and locus of control, most of the studies cancel each other out, except for some possible indications of increased externality amongst the old-old.

Positive Correlates of Internality

Self-esteem and an internal locus of control are commonly positively correlated in the studies where the two are included. Where self-esteem increases, so too does internal locus of control (Aloia, 1973; DeCoster, 1987; Teitelman, 1983).

Another study, (Jackson, 1980) done with the several groups of elderly in North Carolina demonstrated that attending a course on "Citizen Participation in Civic Affairs" significantly increased the levels of internal locus of control of the participants as compared to control groups. This suggests that providing information and education can have an impact on "internality".

Deutchman (1985), did a research project with a younger group of adults and determined that there was a link between internal locus of control and participation in the political sphere. The link was especially strong, with voting behavior. An important area for exploration is the connection between sense of control and political involvement in the elderly. The development of a political voice will become important as the elderly population spurts in growth relative to the other age populations.

Implications of Increased Internality

The implication of greater participation evolving from consultation, speaks to the benefit of increasing the voice of

the seniors in their own programs, leading to successful enterprises. Selby and Schechter stress the role of the elderly as a resource instead of a burden to society:

> The experts see much of their countries' elderly populations as having positive contributions to make (a) to society at large, through volunteer and family roles, through small businesses created by or for the elderly, and through advisory or part-time jobs; (b) to their communities; and (c) to organizations which serve other elderly persons. Some experts urge that the elderly participate in making organizational decisions and in carrying them out. The elders can be mutually supportive if they have the mechanisms and encouragement to perform in this way (Selby and Schechter, 1982, p. 23).

If seniors do not participate because of an external locus of control, the implication for future program planning would be to implement programs which increase this sense of control. Trela (1978) notes in his study with seniors that membership in voluntary associations increases the probability of involvement in political associations. He goes on to explain that just belonging to social organizations tends to heighten political awareness. If social workers were to intervene with this goal in mind, the result might be more powerful than merely enhancing life-style. This is the concept of "empowering", a subtle process which entails gradually handing over the decision-making capacity to those who need to develop the confidence, interest or the desire to take control.

The process of increasing perceived and real control with seniors would most surely entail some education, (with both workers and seniors), trust in the process as well as in the

seniors themselves and accepting the risk of some degree of failure. This speaks to the need for careful planning and forethought, as well as more knowledge, and thus continuing research in the area.

We can begin by looking at where seniors already exert control and how they presently use this control to increase self-esteem and participation. According to those professionals who work with seniors, the most currently popular programs where seniors themselves take initiative are those connected with leisure activities, socializing and travelling. Can this sphere be extended to take over more of the service and health prevention arenas? All the needs of the aging individual and those of society lead in the direction of seniors assuming a greater controlling voice in their own destinies in all the areas deeply relevant to their most basic needs.

Kuypers and Bengston (cited in Barrow & Smith, 1983), who developed the theory acknowledged in the section on "Conceptual Framework", summarize the whole paradigm shift:

> Facilitate development of internal control in the individual. Allow more self-determination by the elderly on policies and administration of programs that affect them. Increase their involvement, their control, their power, and thus enable them to develop greater self-confidence (Kuypers and Bengston cited in Barrow & Smith, 1983, p. 85).

Bell adds to this:

> Finally, we suggest that, to enable the development of an internal locus of control, those who envision themselves as serving the elderly must de-invest their own power and control: self-determination by the elderly and individual control of policy and administration is the foundation of competent aging (Bell, 1976, p. 87).

The question then is, *how* to increase an internal locus of control. To date, there have been no studies done with advice giving as a trigger for increasing self-esteem, internality and subsequently participation and involvement. This project seeks to determine what connection consultation has with these social indicators. The topic chosen for the seniors to give advice about is "Health and Prevention". This advice-giving group will be compared to a group of seniors surveyed for information on the same topic and a control group who is not interviewed at all.

CHAPTER 2: DEVELOPMENT OF THE HYPOTHESES

The following chapter describes the theoretical underpinnings of the research study. The objectives of the study are outlined and a bridge of the theory to the hypothetical constructs are described. From this bridge emerge the seven consequent hypotheses.

UNDERLYING THEORIES

This thesis is based on two underlying theories, Kuypers and Bengtson Social Reconstruction Model and Arnstein's Ladder of Participation.

Kuypers and Bengtson Social Reconstruction Model

Kuypers and Bengston in 1973 (cited in Barrow & Smith, 1983) described a model which attempted to define the position of the aged in our society. They built their theory on Zusman's model of "social breakdown syndrome" which comprises four steps:

(1) The first is the susceptibility of the individual, which is based on the "precondition" of the personality and previous experiences. If an older person doesn't have strong inner resources and personal guidelines, this individual will be vulnerable to negative labelling.

(2) The second is the experience of negative labelling by others. This labelling is society's view of the aged as being "redundant", "unproductive", "incompetent" and "useless".

(3) The third is the adjustment of beliefs and behavior to fit this negative labelling.

(4) The fourth is the acceptance and resignation of one's self-concept to this negative labelling.

Kuypers and Bengston postulate that the elderly become vulnerable to external negative labelling because of their loss of significant roles, a productive place in society, a support network and sometimes friends and partners. The elderly consequently adopt unfavorable stereotyping as their own and become entrenched in a negative cycle of low self-esteem and reduced expectations of self.

Kuypers and Bengston put forth intervention strategies which may assist the elderly to break out of this cycle. The first is to teach society to "eliminate the idea that work is worth". The second is to improve social services, thereby improving health, housing and financial status of the aged.

The third, again by Kuypers and Bengston, which pertains directly to this project, is to:

> ...facilitate development of internal control in the individual. Allow more self-determination by the elderly on policies and administration of programs that affect them. Increase their involvement, their control, their power and thus enable them to develop greater self-confidence (Kuypers and Bengston, cited in Barrow and Smith, 1983, p. 85).

Arnstein's Theory of Degrees of Participation

Arnstein (as cited in AIP July Journal, 1969), also outlines a theory of increased participation coupled with power towards citizen control, advocating first a voice and then active involvement in change. Arnstein describes a ladder of participation which also defines increasing levels of individual personal power towards the process of social change (see Table 1).

The thesis research project seeks to study the increase of locus of control and empowerment in seniors by comparing the effects of being asked for advice or being asked for information and the relationship of these experimental variables to participation, self-esteem and locus of control. The project integrates Zusman's model of social breakdown with Kuypers and Bengtson intervention strategy of increasing locus of control and self-esteem.

In the context of the theoretical framework surrounding this particular project, participation as explained by Arnstein, (cited in AIP Journal, 1969) can be described on a ladder of increasing power and control (see Table 1).

> The bottom rungs of the ladder are (1) Manipulation and (2) Therapy. These two rungs describe levels of "non-participation" that have been contrived by some to substitute for genuine participation. Their real objective is not to enable people to participate in planning or conducting programs, but to enable power holders to "educate" or "cure" the participants. Rungs 3 (Informing) and 4 (Consultation) progress to levels of "tokenism" that allow the have-nots to hear and to have a voice: When they are proffered by powerholders as the total extent of participation, citizens may indeed hear and be heard... Further up the ladder are levels of citizen power with increasing degrees of decision making clout...there are significant gradations of citizen participation (Arnstein, 1969, p. 216).

Table 1

Arnstein's Ladder of Participation

8.	CITIZEN CONTROL	(full managerial power)
7.	DELEGATED POWER	(more decision making power)
6.	PARTNERSHIP	(negotiate and make trade-offs)
5.	PLACATION	(non-powerful participation)
4.	CONSULTATION **	(non-powerful participation)
3.	INFORMING *	(non-powerful participation)
2.	THERAPY	(non-participation)
1.	MANIPULATION	(non-participation)

** This rung refers to Group 1 in the research project which gives the individuals opportunity to give advice on programming.

* This rung refers to Group 2 in the research project, which gives the individuals opportunity to give information on programming.

OBJECTIVES OF THE STUDY

This research task was designed to meet both the needs of the catchment agency (survey element) and the larger research requirements of the academic community (experimental element).

In order to service the population providing agency, this project sought to gather information about the amount of knowledge of resources, which seniors have about their community. The study looked at whether the different social agencies have adequately promoted their programs, and even to which extent these programs are successful and popular. Thus the study examined what improvements the seniors suggested about programming and what new areas should be developed in the realm of services to promote healthy aging.

The project was fashioned to look at what types of attitudes, habits, strengths, problems, concerns and contacts the seniors have in this particular community in such areas as social participation, smoking, housing and services.

The study was also designed to ascertain how much seniors are aware of the concept of healthy aging and the promotion of prevention of illness.

The thesis experimental component explores several hypotheses based on the two theories outlined at the beginning of

this chapter. These hypotheses are developed in the following section.

Another element of the thesis attempts to support or refute existent literature on co-relationships between variables such as self-esteem and locus of control.

HYPOTHESES

Synopsis of Theory Reformulated into Hypotheses

Input creates involvement. Giving advice or counsel encourages further participation in the area one gives advice about because it: (1) increases a sense of powerfulness, control and status, (2) is congruent to act upon what one talks about (Festinger's theory of dissonance) as in the act of giving advice. If one feels comfortable about giving counsel, one is more likely to feel comfortable with actions surrounding the area of advice.

Self-esteem is likely to be correlated with high internal locus of control because if one feels "power-full" than one is more likely to respect and esteem oneself, since respect and esteem is more given to the quality of control and power than to the opposite, (in our western culture). Therefore, there should be a positive relationship between the variables of self-esteem, internal locus of control, giving counsel and participation because these qualities and experiences are all congruent on a power and control dimension.

ADVICE GIVING
INCREASED SELF-ESTEEM + INCREASED LIFE SATISFACTION
INCREASED INTERNALITY
INCREASED LOQUACITY
INCREASED PARTICIPATION

There should be less congruency between the variable of information-giving, self-esteem, internal locus of control, and participation, because giving information may not be as powerful as giving counsel in terms of increasing self-esteem.

Consequent Hypotheses

First Hypothesis

The advice-giving Group 1 would participate more in the three participation invitations than the information-giving Group 2 and both interviewed groups will participate more than the control group. The control group will participate less than the other two groups because this group never gets the attention and education, or the opportunity to give advice or information and therefore has less input.

Table 2

Predicted Rates of Participation Following the Interview

Expected Participation	Group 1 (Advice-Giving)	Group 2 (Information-Giving)	Group 3 (Control)
	Highest	Middle	Lowest

Second Hypothesis

The advice-giving Group 1 should experience a greater shift upward in self-esteem after the advice-giving opportunity than the information-giving Group 2 who might not find giving information as empowering and who might not consequently feel so knowledgeable as those who had the opportunity to give counsel (see Table 3).

Table 3

Predicted Outcomes of Averages of Self-Esteem Scale

Group	Before Treatment	After Treatment	Average Shift
Group 1	same as Group 2	+ > than Group 2	+ > Group 2
Group 2	same as Group 1	Lower than Group 1	No shift

Group 1 = Advice-giving Group 2 = Information-giving
A_2 = .10 ES = .20 N = 40 Power = .23

Third Hypothesis

If giving advice makes one feels empowered, and if empowerment is seen as increased internality than one should become more internal after giving advice than after giving information. Thus Group 1 should experience a greater positive shift in internality on the second half of the health locus of control scale than Group 2, the information-giving group, because the experience of giving counsel would be more congruent with an internal locus of control, a result which should show up in the second half of the locus of control scale (see Table 4).

Table 4

Predicted Outcome of Averages of MHLC

Group	Before Treatment	After Treatment	Average Shift
Group 1	Same as Group 2	> than Group 2	Upward shift
Group 2	Same as Group 1	< than Group 1	No shift

Group 1 = Advice-giving Group 2 = Information-giving
A_2 = .10 ES = .20 N = 40 Power = .23

Fourth Hypothesis

Group 1, the advice-giving Group, should express greater life satisfaction than the information-giving Group 2 because those who have given counsel may feel greater self-esteem and consequently experience and report more life satisfaction.

Fifth Hypothesis

Because high internality is associated with feeling powerful it is hypothesized that there will be a large positive co-relationship between internality of locus of control and self-esteem.

Sixth Hypothesis

High self-esteem is predicted to correlate positively with high life satisfaction, because both are related to self-concept and are often correlated positively in previous research. Their positive co-relationship would also serve to partially validate the measurement instruments in this study.

Seventh Hypothesis

If those who have high internality feel more in charge of their own destinies, might they not also feel more confident, thus demonstrating this confidence with increased loquacity? It is predicted that there is a positive relationship between internality, loquacity, self-esteem, life satisfaction and participation in organizations, positing that the common variable here would be greater self-confidence.

CHAPTER 3: RESEARCH PROCEDURES

The following chapter reviews the source of the data for the study, the measurement tools and their sequencing. Sampling procedures, representativeness and selection of criteria are briefly outlined, as well as a simple description of the steps of research and analysis design.

This thesis is primarily a quantitative analysis with an overall twofold purpose of adding to the current literature on aging and serving the agency from which the respondents were selected. This means that the project is both an experiment and a survey.

Source of Data

The research project respondents live in the Fraser Valley, just south-east of Vancouver in British Columbia. All of the respondents reside in an area described as Matsqui-Abbotsford, and their names were drawn from the files of Matsqui-Abbotsford Community Services. These respondents seek services from this agency to assist them with their forms, income tax preparation, pension applications, financial and housing concerns. They are thus in the main, fairly familiar with the agency. Because this agency is the primary provider of this particular type of service in the catchment area of Matsqui-Abbotsford, the respondents are deemed to be fairly representative of the seniors in the region,

except for those groups mentioned under the heading "Representativeness" later in this chapter.

Research Design

This particular research design is primarily quantitative, with a qualitative component which can also be broken down and analyzed quantitatively.

The 120 subjects were randomly selected and assigned to three groups of 40 each. Group 1 and 2 were personally interviewed and all three groups were given 3 graduated and increasingly weighted types of opportunities to participate after the interviews were completed (see description of operationalization of Participation in Chapter 2, under Participation in "Definition of Terms and Concepts").

The two interviewed groups received the same 5 measurement scales and demographic questions in identical order. The difference between the two interviewed groups lay primarily in the manner in which one of the questionnaires sandwiched between two halves of the health locus of control and self-esteem scales, was administered. Group 1 was given questions in the form of asking for advice and Group 2 was given the same questions in the form of asking for information.

Two of the measurement scales (health locus of control and self-esteem) were used before and after the different treatments

to determine if the two types of intervention (advice-giving and information-giving) induced measurably dissimilar effects.

Flow Chart of Experiment-Survey Events and Interventions

Outlined below is the sequence in which all of the exchanges and interventions took place with, Group 1 (advice-giving), Group 2 (information-giving) and Group 3 (Control Group).

	Group 1	Group 2	Group 3
1.	Letter of Introduction of survey	Letter of Introduction of survey	Letter of Introduction of survey
2.	Telephone call from researcher asking for Interview.	Telephone call from researcher asking for Interview.	Telephone call asking if person still living at same address.
3.	Interview (1 to 3 hours - all scales read aloud to participants)	Interview (1 to 3 hours - all scales read aloud to participants)	No interview
3a.	Read Consent Form	Read Consent Form	n/a
3b.	MHLC first half	MHLC first half	n/a
3c.	Self-esteem done top-down	Self-esteem done top-down	n/a
3d.	Questionnaire on Health Awareness asking for advice done with lap top computer.	Questionnaire on Health Awareness asking for information done with lap top computer.	n/a
3e.	MHLC second half	MHLC second half	n/a

3f.	Self-esteem bottom to top	Self-esteem bottom to top	n/a
3g.	Life Satisfaction Scale	Life Satisfaction Scale	n/a
3h.	Organization Participation Questionnaire	Organization Participation Questionnaire	n/a
3i.	Demographic Questionnaire	Demographic Questionnaire	n/a
3j.	Consent form	Consent form	
4.	Participation 1 (Invitation to order booklet on healthy aging)	Participation 1 (Invitation to order booklet on healthy aging)	Participation 1 (Invitation to order booklet on healthy aging)
5.	Participation 2 (Invitation to be on mailing list of Health Awareness Group)	Participation 2 (Invitation to be on mailing list of Health Awareness Group)	Participation 2 (Invitation to be on mailing list of Health Awareness Group)
6.	Participation 3 (Invitation to go to a meeting of Health Group)	Participation 3 (Invitation to go to a meeting of Health Group)	Participation 3 (Invitation to go to a meeting of Health Group)

Measurement Tools

All of the measurement tools are included in the Appendices. Four different reliable measurement tools were used in this research project:

"Multi-Dimensional Health Locus of Control - Form A and Form B" scales (Wallston, Wallston and DeVellis, 1978).

"Self-Esteem" scale by Rosenberg (1965) (cited in Mangen & Peterson, eds. 1982).

"Satisfaction with Life Scale" by Ed Diener, Robert A. Emmons, Randy J. Larsen and Sharon Griffin (1985).

Extracts from "Social Participation Scale" by F. S. Chapin (1939) (as cited in Miller, 1983).

The Multi-Dimensional Health Locus of Control Scale

The MHLC has two parallel forms, Form A and Form B, which are essentially almost identical, in that they both have 3 sub-scales of 6 questions each that test: whether an individual believes that he/she is primarily accountable for his/her own health, if chance, luck or fate is responsible, or whether "powerful others" such as experts, doctors and nurses are the most influential in health matters.

In this particular study where different types of treatment are inserted between the two split halves (Form A and Form B) of the MHLC, it is of the utmost importance that there is internal reliability in the scale itself. Reliability, fortunately is the MHLC's strongest feature. With Cronbach's alpha, the internal consistency reliability extends between .67 to .77 for the different sub-scales, the three dimensions and two parallel forms. The alphas are between .83 and .86 when the two parallel forms are combined. (Corcoran & Fischer, 1987).

In the Abbotsford project the internal consistency reliability between the sub-scales ranged between .68 to .74 using Pearson's product-moment correlation coefficient.

This scale had been vastly improved since the previous HLC scale which provided confusing results because it failed to account for the three dimensions which are differentiated in the MHLC.

This measurement tool is still being researched. These scales have, according to Corcoran & Fischer, (1987) "fairly good criterion validity, correlating with subjects' state of health. The scales also correlate with other measures of locus of control, including the Multidimensional Locus of Control scales for Psychiatric Patients" (p. 239).

In the Abbotsford study also, the "internality" subscale correlated highly with the reported state of health ($r = .401$ $p. < .001$).

According to the authors (Wallston & Wallston, 1981) if the MHLC is used as a dependent variable, the evidence for the validity of the measures appears greater, than when the construct is used as a predictor of behavior. The hypotheses in this work do not pose the MHLC as either independent or dependent variable, but rather use its internal reliability to determine if the two

types of treatments are different and as a scale to be correlated with others.

Self-Esteem Scale

The self-esteem scale consists of 10 fairly unidimentional questions with a forced choice continuum between Strongly Agree to Strongly Disagree allowing for no neutral response.

The brevity and administrative simplicity of this instrument make it an excellent tool for the elderly person and this scale is continuing to be researched and developed for precisely this type of application. Breytspraak and George (1982) in their review of self-concept and self-esteem scales claim: "The Tennessee Self-Concept Scale and Rosenberg's scale probably represent the best of all the measures discussed because of the amount of work that has been done to establish their validity and reliability, including their use on older populations (p. 249)."

The Rosenberg scale has an alpha measure of internal consistency of .74 (Ward, 1977) and a test-retest correlation of .85 within two weeks (Silber and Tibbett, 1965). In this research Abbotsford project the Rosenberg scale was re-administered within half an hour, but from bottom to top, in the second administration and had a Pearson's r of .834 p. <.000.

Correlations with Rosenberg's scale and other similar types of measurement and clinical ratings of depression range from .65 to .83 (Silber and Tippett, 1965; Rosenberg, 1965).

This particular self-esteem scale was originally tested on adolescents and later used with adults and retirees, quite successfully. However, different researchers have utilized varying types of complex scoring calculations which creates difficulties in comparing results between researchers.

There are suspicions that this scale correlates with social desirability scales according to Breytspraak & George cited in Mangen and Peterson editors of Volume 1 Research Instruments in Social Gerontology: Clinical and Social Psychology (1982). There was some evidence of this assessment in the Abbotsford project, as the respondents' seemed to admit to less socially desirable characteristics after they felt more at ease with the researcher when the scale was re-administered after a period of exchange.

Satisfaction with Life Scale (SWLS)

This scale was also developed for its brevity and easy administration. It consists only of five key items, factor analyzed and extracted from 48 previous items. The SWLS measurement tool has a convincing internal consistency with an alpha of .87. It has two month test-retest reliability with a correlation of .82 (Corcoran & Fischer, 1987).

The SWLS correlates in the expected direction with measures of self-esteem, a checklist of clinical symptoms, neuroticism and emotionality. In the Abbotsford project the SWLS correlated highly with the self-esteem scale ($r = .450$ $p. < .000$).

This instrument was developed on a sample of undergraduates but was used in studies for adolescents, adults and elderly persons. The mean score was higher for the sample of elderly persons than for younger age groups (Corcoran & Fischer, 1987). In the Abbotsford study there was no change in the SWLS over the age span of 60 to 75 years.

Extracts from the Social Participation Scale

This activity and community group participation scale originally developed in 1939, measures family involvement in various types of associations; professional, civic, religious and social. The instrument has the respondent name all of the activities and groups to which he/she belongs, including membership, attendance, contribution, committee membership and office. These are then scored giving ascending weight to degrees of involvement.

For the purpose of this particular survey, the questions were aimed at the individual and not the combined activities of the couple as in the original instrument.

Test-Retest reliability for one week was .89 and for several months was .88 (Mangen & Peterson, 1982).

Questionnaires

The two treatment questionnaires were designed to address the same topics (general health, exercise, nutrition, safety, elder abuse, loneliness and prevention orientation) with the same number of questions. However the advice-giving questions ask what the seniors would advise or suggest should be done while the information-giving ask who the seniors would turn to for information about these topics. The advice-giving group was told that their advice would be heeded by the Ministry of Health and the information group was told that their information would be useful to determine what type of advertisement of programs was useful.

The advice-giving questionnaire has the purpose of receiving suggestions about health and prevention issues while the second information-giving questionnaire is designed to find out where the seniors get their information or which resources instantly come to mind. This data is meant to assist in planning for senior needs and information dispersal systems.

The questionnaire on social networks and demographics asks questions about frequency of contact with family and intimate friends, ethnic descent, state of health of self and spouse, amount of time lived in the area, smoking habits, type of living

accommodations and feelings of comfort or usefulness with the survey. These questions were designed to shed extra light on the health attitude and participation scales.

Both questionnaires on advice gathering and information gathering were done on a lap-top computer so that the respondent could see his or her responses go directly on the screen and the respondent had at every moment, the opportunity to correct responses, add to them or delete them as the interview went along. This format complemented the format used for the other scales which were done with the respondent and researcher bent over the scale together. The researcher read all of the items and marked down the chosen response by the respondent. Thus all of the responses were seen by the respondent and complete openness was maintained throughout, about the content and responses, to ensure a sense of empowerment and participation in the respondent with the survey.

Measurement of Participation

Operationalization of the dependent variable of participation is described in Chapter 2, under the heading of Participation in the section of "Definition of Terms and Concepts". The actual instruments are included in the appendices along with the other measurement instruments.

Sampling Procedures

This particular project was designed to eventually service the needs of the elderly: (a) who are living independently and not in institutions, (b) are between the ages of 60 to 75 (the young-old), thus are most likely to benefit from programs which promote independence and (c) who are not so wealthy or educated that they don't need the services of the Community center to assist with their finances. The wealthier population of seniors are not the seniors most seen to be in need of enlightened programming, both because of their extra finances and their ability to spend at least part of the year in warmer climates away from consistent community involvement.

Representativeness

The files of Matsqui-Abbotsford Community Services are comprised of seniors in the catchment area who are in need of assistance with their finances at least once a year and this community agency is the primary and best known provider of such a service. Since this service is the only resource of its kind in the vicinity the clientele represents a good cross-section of the seniors in the area which the agency would like to reach for healthy aging programming.

These files however do not include a representative number of Indo-Canadians as this particular population uses the services provided by the extended family or the special multi-cultural representative at the agency who keeps separate records. These

files also do not represent the institutionalized or wealthier seniors who have their finances taken care of by private accountants or public trustees.

The final selection did not include a representative sampling of the non-home-owning or renting elderly population, consisting primarily of transient males living in rooming houses or modest rural dwellings with no telephone.

Since the agency was a familiar one for all of the participants in this study this familiarity could elevate the rate of participation of this group compared to the rest of the population.

The population sample used for the thesis was mainly representative of those whom most community services wish to reach in this age group, namely those who : (1) are independent in the community, (2) are not so wealthy or sophisticated that they can handle their own income tax forms or hire someone else to do this for them, (3) are not institutionalized or immobile consequently having their services provided on site, (4) are not complete isolates or transients, therefore possessing some capacity to reach out for assistance to an agency, even if it is infrequently. This group is representative of those who need, could and would use a community center.

Selection of the Participants

The first selection was made on the basis of: (1) the age of the client, (between 60 and 75), (2) independent status (non-institutionalized), (3) the possession of a telephone number, (4) use of the agency within the last three years.

Judging by the response rate for the pretest of 20 persons it was determined that about 360 persons would have to be selected in order to assure a good response rate for the three groups. These 360 persons were assigned randomly to three groups. Each name was assigned a number which was put on paper. The numbers were mixed completely and randomly placed into three bowls. Subjects were selected randomly from these three groups. Approximately 32% refused, and about 35% could not be reached, because they were moved or simply not available. There was an acceptance rate of about 33%. Those who were selected at random from the control group were phoned by the agency, to establish that they were indeed still residents at the same address and available, without being requested to be interviewed. Couples were assigned together to the different bowls under one number and those picked were alternated between husband and wife so that there was an equal balance of husband and wives being interviewed, rather than setting up a situation where there might be an imbalance in response between spouses (wives might be more comfortable in responding since the researcher was a woman).

Steps of the Research Procedure

A pre-test was undertaken where 60 randomly selected seniors were mailed a preliminary letter, explaining in broad terms, the objectives of the project, who would be contacting them and pointing out their right to refuse to take part in the research. Some of the letters were returned, with either requests to not be included or because the address had changed.

The remainder were telephoned and 20 accepted to be interviewed, 10 having been randomly assigned to Group 1 and 10 to Group 2. These were interviewed and after each interview the respondents were mailed an invitation to participate in participation option # 1. Participation # 1 was a letter which invited the respondent to order a "Wellness Book" for free from the agency by either turning in the bottom of the letter in to the agency or mailing it in. A randomly selected member of Group 3 was mailed a participation option #1 also, after being phoned at home to confirm residence and availability. After 2 weeks a second letter invited them to mail in a request to be on the mailing list of an Advisory Group in the area being formed for "Healthy Aging". After two weeks again, each was written an invitation to actually attend a group meeting of the "Advisory Group for Healthy Aging", with a short explanation of its agenda.

Few changes were made after the pre-test so the sample of 20 was added to the final number. These changes mainly comprised of additions, such as what type of dwelling the respondent lived in

and whether he or she smoked. If the modification was unclear the respondent was phoned for clarification.

Analysis Design

The scales were scored and keypunched into a Systat statistical analysis computer package data matrix with the variables plotted against the 80 cases of interviewed clients. The variables consisted of the scores on the tests and the various demographic and personal characteristics transcribed into numbers.

The first part of the analysis focussed on determining with the use of paired sample t-tests if there were significant differences between scores on the tests before and after the different treatments. Independent t-tests were used to determine if there were differences in the scores of the life satisfaction scales which were administered after the two treatments and in the participation scores.

Key variables were correlated with others, using Pearson's' correlation coefficients to determine the extent of association between crucial concepts such as prevention orientation and participation patterns or other characteristics.

The health-prevention advice and information-giving questionnaire responses were categorized and coded, quantified and priorized to determine what views the seniors most

consistently stated, which resources they quoted primarily, what concerns they expressed the most frequently and finally with what other characteristics these views and concerns were most often related.

Implementation of Research Plan and Suggestions for Improvements

During the pre-test it was noted that some of the clients were hesitant about being interviewed and had to be encouraged about the ease and safety of the process. Because of this, in the actual project many more introductory letters were issued which gave the researcher more latitude about refusals and allowed for the constant reintroduction of the freedom for the respondent to refuse at various points in the initial telephone conversation. This meant that the respondents who did accept to be interviewed were more motivated and interested in the topic and in the participatory process than those who refused and those who possibly represent the average senior in the general population. Unfortunately, because of ethical concerns, at present no obvious solution can be worked out to correct for this bias for a future experiment.

During the course of the pre-test it became evident, by the types of responses which the seniors made in their questionnaire on which resources they accessed, that the type of dwelling in which they were living affected almost all aspects of their lives. Therefore the respondent's dwelling type was added to the demographic questionnaire. Smoking habits also seemed to affect

how the respondent viewed questions on health, thus a question about whether the respondent smoked was added.

The self-esteem questionnaire was repeated before and after the advice giving or information giving experience to determine if the type of treatment affected self-esteem. The questions were given from the first to the last, the first time and from the end to the beginning the second time, to prevent the respondent simply remembering what they had answered merely half an hour ago. Many of the respondents noted that the scale was familiar and attempted to recall their answers, but were unable to because of the change in sequence.

An interesting effect, however, materialized which affected the before and after results of the self-esteem questionnaire. While talking about themselves and making disclosures about their health beliefs and practices, sometimes the respondents felt increasingly comfortable, at ease and therefore more candid. During the second self-esteem questionnaire they would perhaps openly relinquish the socially desirable response and admit or acknowledge that they sometimes felt badly about themselves in one way or another. It was difficult to establish if this change in response was triggered by the material in the questionnaire or by the increased comfort with the situation. There is no literature that outlines what effect the re-administration of this self-esteem (or any other self-esteem scale for that matter) in such a short space of time, has on the scores. Statistically,

there was no difference between the two groups in the second self-esteem scale, and overall there was a slight non-significant increase in the scores. It was difficult to establish however, just how contaminating social desirability, increased candidness and such an early repetition of the measurement tool, had on the final results.

It was frequently difficult to extract a signed consent from the respondents before the actual interview, as they were (not unreasonably) suspicious of having to sign a piece of paper which might commit them to some unknown consequence. After interviewing the first few clients, I read the initial part of the consent form and asked them to sign the paper only after the interview and only if they felt absolutely comfortable doing so. A large number of them felt considerable apprehension about signing anything and after a time I requested it only very lightly.

Other than the changes introduced as mentioned above, the research plan was implemented without any impediments. The agency was very co-operative in giving access to files, secretarial assistance, copying and mailing services and provided encouragement and interest during the process.

CHAPTER 4: FREQUENCY DISTRIBUTIONS

This chapter provides a brief overview of the characteristics of the two combined groups of studied respondents. Incorporated are demographic, participation and health indicators, outlined to provide a context for better understanding of the findings. Some of the differences between men and women in the three indicators are given consideration.

Demographic Indicators

In the general population in Canada, within the age group of 60 to 75 there are about 80 men for every 100 women (Stone & Fletcher, 1986). This means that in the general population in this age bracket, 44% of the population are men and 56% are women. In the Abbotsford pool of possible respondents 33% were men and 67% were women. Thus men were underrepresented by about 11% which can likely be explained by the tax service user pattern (referred to in Chapter 3 when describing representativeness and sampling). The actual interview acceptance rate increased the difference in representation between men and women further (men 29% and women 71%) so that men were actual underrepresented in the study compared to the general population, by 15% due to a slightly higher refusal rate.

Fortuitously, the population available for study, is precisely the target population about which the agency and the government need to acquire more information from, in order to

provide greater relevant programming to promote independent living and healthy aging. This is underlined by the fact that women are increasingly becoming the survivors in old age (Stone & Fletcher, 1986) and women enjoy less pension income, and spousal nursing care than their male counterparts.

The mean age of the studied group was 68 years, and Table 5 outlines more demographic indicators: gender, marital status, type of housing and ethnic origin.

Table 5

Demographic Indicators for the 80 Respondents

Demographic Indicators (ages 60-75)	N	(%)
Men	23	29%
Women	57	71%
Widow/Widower	30	37%
Married	38	48%
Single or Divorced	12	15%
Senior Complex Accommodation	36	45%
Detached Housing Accommodation	44	55%
British Isles Ethnic Descent	49	61%
German/Dutch/other ethnic Descent	31	39%

Most of the men were married (87% versus 32% of the women) and few of the men were actually single (13%, versus 68% of the women were single). Almost all of the widowed were women. More of the married persons lived in detached housing (55%) rather

than in a complex (39%). Therefore, men were more likely to be married, live in detached housing (65% to 51%) and were in more frequent contact with their families (65% to 58%), with a possible connection between increased family contact and living in the original family dwelling.

Participation Indicators

Participation and sociability are key factors which influence the formulation and outcome of the hypotheses in the project.

Although on any one participation indicator there were few massive differences between men and women, when several of the indicators were summated, men as a whole participated considerably less than women in relationships outside of the home. Men had less frequent close contact with friends (37% less), went to church less by 26%, volunteered 23% less and participated less than women, in formal organizations by about 15%. However, men reported having about 7% more contact with family than women did, perhaps because they tended to stay at home more, lived in their original detached dwellings and were far less likely to be widowed. Stone and Fletcher (1986) also point out that there are strong indications of higher levels of social isolation among older men. According to Stone and Fletcher's research, men tend to spend more of their leisure time alone, even if they are married, but especially if they are single.

Table 6

Participation Indicators for 80 Respondents by Gender

Participation Indicators (ages 60-75)	N	(%)	M	W
Formal Organization Participation	59	73%	61%	76%
Volunteer Work Community Participation	20	25%	9%	32%
Church Participation	39	49%	30%	56%
Close/frequent family contact	48	68%	65%	58%
Frequent/close contact with friends	49	61%	35%	72%

N = Number, % = % of Total 80, M = Men, W = Women

Formal organization participation, volunteer participation, church participation and frequent contact with friends were all statistically significantly different in the genders, with women being more participatory. There was also a cumulative percentage difference when all of the constructs in Table 6 were added, of 94% difference between men and women for participation in different contexts.

Those who lived in senior complex housing did not differ drastically on individual indicators for social participation, from persons who lived in detached housing. However, cumulatively, those who lived in detached housing tended to be somewhat less involved with others in the community than those who lived in a senior complex. Persons living in detached housing participated about 17% less in formal organizations, went to church about 17% less, volunteered about 20% less and had about 15% less frequent contact with friends. This is in spite

of the fact that those who lived in a senior complex tended to be older and the older, according to McPherson and Kozlik (1987) participate somewhat less, generally in formal groupings. Participation patterns in the Abbotsford study, may have been affected by the actual larger numbers of married persons and men in the sample who lived in detached housing. Both these groups tended to participate less in group activities.

Health Indicators

Some health indicators surveyed in the project were: self-reported levels of good health (ranging from poor through fair, good and excellent), smoking habits and if a person was "prevention" oriented, that is, conversant with ideas of health awareness and health management (see Table 7). If the respondents understood what the concepts of "prevention" and "wellness" were and had noticed or picked up the "Prevention" magazine exhibited on most of the large supermarket check-out counters, they were noted as prevention oriented.

Table 7

Health Indicators for the 80 Respondents

Health Indicators (ages 60-75)	N	(%)	M	W
Health/Prevention oriented	20	25%	13%	30%
Smoking	20	25%	39%	19%
Poor to Fair self-reported Health	29	36%	43%	33%
Good to Excellent self-reported Health	51	64%	57%	67%

N = Number, % = % of Total 80, M = Men, W = Women

Here again, some groupings such as gender, registered only small differences in any one area, but these distinctions were cumulatively skewed in one direction upon different parameters, which then created a profile of more widespread dissimilarity.

In this project, women tended to be less likely to smoke than men by 20%, claimed better health, by 10% and were more prevention oriented by 17%. These differences are substantiated in the national figures (Stone & Fletcher, 1986). Health indicators such as these, combined with higher social participation on several parameters by women present a profile which demonstrate some possible partial explanations for higher death rates of older men then older women.

Summary

Differences in participatory patterns seem to be connected to the single or married life-style as well as to differences in gender. Married persons, both male and female participate less outside of the home, although single men tend to be more loners than single women. It becomes difficult to estimate causes in various participatory patterns because of the weak effect of different parameters, such as married status, type of dwelling, health and ethnic origin. Being a woman, German in ethnic descent, living in a senior complex and single seem to increase participatory patterns and health awareness to a different degree.

CHAPTER 5: HYPOTHESES RESULTS

Project results were based on the seven hypotheses outlined in Chapter 2, after scoring and statistically analyzing the Multi-Dimensional Health Locus of Control scales (Wallston, Wallston & DeVellis, 1978), (MHLC), the Rosenberg Self-Esteem scales, (RSE) the Satisfaction with Life scales, (SWLS), (Diener et al., 1985) the Participation in Organization scales (Chapin, 1955) and the three questionnaires asking demographic, health and participation questions.

Findings for Hypothesis 1

The original hypothesis was that the 3 responses to the project invitations to participate would be highest for Group 1, the "advice-giving" group. The next predicted highest results would be for Group 2, the "information-giving" group. The lowest response rate was predicted for the control group, Group 3, who had not been interviewed.

Table 8

Expected Participation Rates

	Group 1 (Advice-Giving)	Group 2 (Information-Giving)	Group 3 (Control)
Expected Participation	Highest	Middle	Lowest

A_2 = .10 ES = .20 N = 40 Power = .23

The numbers obtained were generally in the expected direction as outlined in Table 9.

Table 9

Participation Rates by Group in Project Invitations

Group	Part.1	Part.2	Part.3
Group 1 (advice-giving)	41%	44%	69%
Group 2 (information-giving)	37%	48%	31%
Group 3 (control)	22%	8%	0%
Total	100%	100%	100%

Group 1 (N) = 40 Group 2 (N) = 40 Group 3 (N) = 40

The 2 main treatment groups, however did not demonstrate a large enough statistically significant difference to fulfill the predictions of the hypothesis, when t-tests were applied, as demonstrated in Table 10.

The difference in effect size predicted was a small one, because of the small difference between the two variables advice-giving and information-giving, in Arnstein's Ladder of Participation, referred to in Chapter 2. According to Cohen's "Statistical Power Analysis for the Behavioral Sciences" (1977), a small effect size (d = .20) with 2 independent sample populations numbering 40 each and with an expected social sciences significance level of .05, would yield no better than 23% chance (given perfect instruments in terms of reliability and validity) of detecting a difference between the two groups. In

other words, given the numbers and effect size, there was about an 80% chance that no difference would be detected.

Group 1 Compared to Group 2 in Participation

Table 10

Independent Samples t-test on Participation Totals Grouped by Group 1 (advice-giving) and Group 2 (information-giving)

Group	Mean	Standard Deviation
Group 1 (Advice)	1.150	1.626
Group 2 (Information)	1.125	1.265

Pooled variances t = .077 degrees of freedom = 78
probability = .939

A_2 = .10 ES = .20 N = 40 Power = .23

The treatment effect of having subjects give advice instead of giving information is so weak as to create real questions about any perceptible difference between the two populations in terms of their future participation in the 3 different types of participation measures.

This lack of difference in participation between Group 1 and Group 2 can be at least partially explained by the fact that there were, by chance, 13 prevention oriented persons in the information-giving Group 2 while the advice-giving Group 1 only had 7 prevention oriented persons. Prevention orientation was found to be significantly related to participation in organizations and participation in organizations was

significantly related to participating in the project invitations after the interviews.

Also, Group 1, due to chance, when compared to Group 2 on three health indicators, health awareness, smoking and self-reported levels of health scored somewhat lower, a factor which may have influenced participation to some degree. This difference in participation and health factors was hinged on the one statistically significant (by chance) difference between Group 1 and Group 2. There were, by accident, quite a few more persons of German Mennonite culture in Group 2 than in Group 1 (9 versus 2). Being of the German Mennonite culture seemed to be connected to increased health awareness and social participation, factors which were linked to the hypothetical constructs in this project.

Table 11 condenses the differences between Group 1 and Group 2 on several key health indicators. The diagram illustrates some important differences between the groups, some of which may be explained by the cultural factor. The German Mennonite factor was the only statistically significant difference between the two groups, but it may have played a vital role in some of the responses, since the German group were also significantly more likely to be prevention oriented ($r = .356$ $p. < .001$) in their attitudes and church attending ($r = .298$ $p. < .007$) in their behaviors.

Group 1 Compared to Group 2 on 3 Health Indicators

Table 11

Group 1 (advice-giving) and Group 2 (information-giving) on Health Orientation, Smoking and Health

Health Indicators	Group 1		Group 2		Total	
	N	%	N	%	N	%
Health awareness/prevention	7	18%	13	33%	20	25%
Non "prevention oriented"	33	82%	27	67%	60	75%
Smoking	13	32%	7	18%	20	25%
Non-smoking	27	68%	33	82%	60	75%
Poor to Fair reported health	16	40%	13	33%	29	36%
Good to Excellent rep. health	24	60%	27	67%	51	64%
German Mennonite culture	2	5%	9	23%	11	14%

Group 1 (N) = 40 Group 2 (N) = 40

The total positive health indices for Group 1 was 58 while the Group 2 score of 73 gave Group 2 a total positive score of 15 points higher than Group 1. This skew in the randomly sampled population may have created a difference in related constructs, thus affecting the comparison between the two groups on key studied parameters.

Both treatments of asking for advice and information had however, more impact on participation than no personal contact at all as demonstrated by the participation of the control group. However, Group 3 did not have the same opportunity to refuse as Group 1 and 2 when initially contacted, thus there is a strong possibility that Group 3 had less motivated members.

Group 2 Compared to Group 3 in Participation

Table 12

Independent Samples t-test on Participation Grouped by Group 2 (information-giving) and Group 3 (control)

Group	Mean	Standard Deviation
Group 2 (Information)	1.125	1.265
Group 3 (Control)	0.325	0.730

pooled variances t = 3.465 degrees of freedom = 78
probability = .001

A_2 = .10 ES = .20 N = 40 Power = .23

Group 1 compared to Group 3 in participation

Table 13 outlines the difference between Group 1, the advice giving group and Group 3, the control group.

Table 13

Independent Samples t-test on Participation Grouped by Group 1 (advice-giving) and Group 3 (control)

Group	N	Mean	Standard Deviation
Group 1	40	1.150	1.626
Group 3	40	0.325	0.730

pooled variances T = 2.928 degrees of freedom = 78
probability .004

A_2 = .10 ES = .20 N = 40 Power = .23

There was less than a 23% chance that any difference could be detected between Group 1 and Group 3, as postulated by Cohen's power tables (1977).

Personal contact, attention or education may have been the contributing factors to the significant difference between the personally interviewed groups and the non-interviewed group in terms of participation. Sampling procedures referred to in Chapter 9 under Recommendations in Research Design may also explain some of the differences in participation.

Findings for Hypothesis 2

The predicted outcome of the second hypothesis was that the advice-giving Group 1 would score higher on the self esteem scale after an advice-giving questionnaire than would the information-giving Group 2, to support the theory that giving advice is more self-esteem boosting than giving information. Table 14 outlines the predicted direction of the self-esteem scale results.

Table 14

Predicted Outcomes of Averages of Self-Esteem Scale

Group	Before Treatment	After Treatment	Mean Shift
Group 1	same as Group 2	+) than Group 2	Shift up
Group 2	same as Group 1	Lower than Group 1	No shift
Group 1 = Advice-Giving		Group 2 = Information-Giving	
A_2 = .10	ES = .20	N = 40	Power = .23

The effect size again was predicted to be a small one and a difference could not be expected to be detected more than 23% of the time, comparing independent group scores, according to Cohen (1977), which leaves a very small margin for detecting differences.

Table 15 demonstrates that there was a small shift upwards in actual numbers in self-esteem in both groups of advice-giving and information-giving after treatment.

Table 15

Actual Results of Averages of Self-Esteem Scale

Group	Before Treatment	After Treatment	Average Shift
Group 1	18.425	18.550	0.125
Group 2	18.150	18.225	0.075

Group 1 = Advice-Giving Group 2 = Information-Giving

A_2 = .10 ES = .20 N = 40 Power = .23

These differences in Table 15 are in the predicted direction, but are they large enough to be statistically significant? Table 16 presents the results of paired samples t-tests for significance.

Table 16

Paired Samples t-test for Self-Esteem Scale Before and After Treatment for Group 1 and Group 2

Group	Mean Shift	S.D.	t	df	Probability
Group 1	+0.125	2.857	.277	39	.783
Group 2	+0.075	2.105	.225	39	.823

Group 1 = Advice-Giving Group 2 = Information-Giving

A_2 = .10 ES = .20 N = 40 Power = .17

Table 16 results suggest that giving advice does not likely promote self-esteem any more than does the opportunity to give information. To be noted, is that according to Cohen's power tables (1977), there is a less than 17% chance that a t-test difference will be found using paired samples of Group 1 and Group 2, given the effect size sought and the number used in the different groups (power of .17).

Another qualification may be tendered; that giving advice might have a greater chance of providing the expected results if the counsel given is on a topic with which the respondent is familiar with. The main subject of the research/survey centered around health awareness and prevention. Only 25% of the respondents were discovered to be familiar with the concepts of prevention and healthy aging. Giving advice about a subject with which one is not familiar may not be as likely to promote self-esteem.

To support this notion, if one analyzes the data presented by the small sample of respondents who were familiar with the research topic, the predicted direction of self-esteem is closer to attainment. Table 17 extracts the sample of prevention oriented individuals in both groups and analyzes their differences using paired samples t-test. To be noted is the upward shift in a positive direction of the advice-giving Group 1 compared to the minimal shift of Group 2 for this prevention oriented group, who were more conversant with the topic.

Table 17

Paired Samples t-test on Self-Esteem for Those who were Familiar with Concept of Prevention

Group	Mean Shift	S.D.	t	df	Probability
Group 1	+1.143	1.215	+2.489	6	.047
Group 2	-0.077	1.891	-0.147	12	.889

Group 1 = Advice-Giving Group 2 = Information-Giving

A_2 = .10 ES = .20 N = 7 & 13 Power = .10

The results in Table 17 demonstrate that it is somewhat possible that giving advice upon a familiar topic may raise self-esteem. However, the small number of respondents in this sub-sample render the results inconclusive, (using Cohen's power tables, there is only about a 10% chance of detecting a difference in such a small population) but the additional exploration helps define criteria for sampling procedure, should further research be pursued in this area.

Findings for Hypothesis 3

The predicted outcome for the third hypothesis was that the scores of the second half of the locus of control scale measuring internality would be higher for Group 1 than Group 2. This hypothesis was based on the assumption that if the respondent gave advice he/she would feel greater self-esteem and would consequently feel more powerful, more in control and this empowerment would register in the subsequent locus of control scale. The predicted outcome is outlined in Table 18 and the actual results are presented in Table 19.

Table 18

Predicted Outcomes of Averages for MHLC

Group	Before Treatment	After Treatment	Mean Shift
Group 1	Same as Group 2	> than Group 2	Upward shift
Group 2	Same as Group 1	< than Group 1	No Shift

Group 1 = Advice-Giving Group 2 = Information-Giving

A_2 = .10 ES = .20 N = 40 Power = .23

We can see from Table 19 that indeed the two means before the treatments were almost identical, but that advice-giving seemed to create a shift down in locus of control instead of the predicted upward shift. The information-giving Group 2's mean as predicted, remained fairly unchanged.

Table 19

Actual Averages for MHLC Before and After Treatment

Group	Before Treatment	After Treatment	Mean Shift
Group 1	27.250	25.650	-1.60
Group 2	27.000	26.250	-0.75

Group 1 = Advice-Giving Group 2 = Information-Giving

A_2 = .10 ES = .20 N = 40 Power = .23

Are the differences between Group 1's two means, before and after treatment large enough to be statistically significant? Can we say that giving advice in this type of situation would be "unempowering"? Table 20 outlines the paired samples t-tests which address the differences.

Table 20

Paired Samples t-tests on MHLC Before and After the Two Types of Treatment with Group 1 (Advice-Giving) and Group 2 (Information-Giving)

Group	Mean Shift	S.D.	t	df	Probability
Group 1	-1.60	4.945	-2.046	39	.047
Group 2	-0.75	3.788	-0.750	39	.218

A_2 = .10 ES = .20 N = 40 Power = .17

Table 20 demonstrates that there was a larger decline in internality in Group 1 than in Group 2 and this decline was just large enough to be statistically significant. This being originally a one-tailed prediction the results raise serious doubts about the viability of hypothesis 3.

As in the previous hypothesis with self-esteem, could these results be affected by the fact that those who were prevention oriented might have reacted differently to the opportunity to give advice because they are more familiar with the topic? The hypothesis was based on the assumption that giving advice would be empowering given that the topic would be a familiar and comfortable one to the respondent, so as to create the desired effect in increased self-esteem. Table 21 demonstrates the extraction and analysis of the small sample from each group that was familiar with the topic of prevention and health awareness, to determine if giving advice on a known topic might increase internality. Again according to Cohen's tables (1977) given the small sample size and the desired small effect one could not

expect to reach a difference in the two groups more than about 10% of the time, given that the measurement tests were perfect.

Table 21

Paired Samples t-tests on MHLC Before and After the Two Treatments in Group 1 and Group 2 by Prevention Orientation

Group	Mean Diff.	S.D.	t	df	Probability
Group 1	-2.714	4.030	-1.782	6	.125
Group 2	0.672	2.720	.918	12	.377

Group 1 = Advice-Giving Group 2 = Information-Giving

A_2 = .10 ES = .20 N = 7 & 13 Power = 10%

Analysis of the results in Table 21 determines that although the results are inconclusive because of small sample size, the numbers do point to the possibility that giving advice not only does not increase internality, but rather shifts internality to externality, even for those who understand the topic, because the shift moves in the opposite direction than predicted.

Findings for Hypothesis 4

It was hypothesized that Group 1, the advice-giving group, should express greater life satisfaction than the information-giving Group 2 because those who have given counsel may feel more satisfied with themselves and consequently experience and report more life satisfaction. The information-giving group on the other hand would experience less personal satisfaction in giving simply information and this would be reflected in their life

satisfaction scores, relative to Group 1. Table 22 outlines the direction of the predicted hypothesis.

Table 22

Predicted Outcome of Averages of "Satisfaction with Life Scale (SWLS)"

Group	Mean Life Satisfaction
Group 1 (advice)	Higher than Group 2
Group 2 (information)	Lower than Group 1

A_2 = .10 ES = .20 N = 40 Power = .23

Table 23 presents the actual findings of the SWLS statistical analysis, where the results of the two groups' scores are compared. To be noted again, according to Cohen power analysis tables (1977) there is no better than 23% chance that a small difference in the expected direction between the two groups will be found, given the sample size.

Table 23

Results Comparing Averages of Group 1 (Advice-Giving) and Group 2 (Information-Giving) in the "Satisfaction with Life Scale" after two Treatments

Group	Mean	Standard Deviation
Group 1 (Advice)	26.125	6.244
Group 2 (Information)	25.975	7.259

Separate variances t = .099 df = 78 Probability = .921

A_2 = .10 ES = .20 N = 40 Power = .23

In Table 23, although in actual figures the difference bears out the direction of the prediction, t-tests demonstrate no statistically significant distinction between Group 1 and Group 2 in their life satisfaction scores.

Table 24 attempts to find a difference between Group 1 and Group 2, using the prevention oriented group.

Table 24

Results Comparing Prevention Oriented Persons in Group 1 (Advice-Giving) and Group 2 (Information-Giving) on SWLS

Group	N	Mean	Standard Deviation
Group 1	7	28.857	3.625
Group 2	13	27.231	5.657

Separate variances t = .781 df = 17.2 Probability = .446 Pooled variances t = .684 df = 18 Probability = .503

A_2 = .10 ES = .20 N = 7 & 13 Power = 10%

In Table 24, if one examines the prevention oriented persons in Group 1 and Group 2, one notes that both means are somewhat higher than they were in the larger group (Table 23) and the difference between the two groups, although not statistically different, is greater and closer to the predicted direction.

The experience of life satisfaction is only very weakly connected, if at all, to the style of giving information or giving advice on a health topic. Therefore the hypothesis that giving advice may increase life satisfaction is not borne out in

the average scores, bearing in mind that according to Cohen's tables there is only a 10% chance of finding a difference in such a small group.

Findings for Hypothesis 5

Because high internality is associated with feeling powerful it is hypothesized that there will be a positive co-relationship between health internality of locus of control and self-esteem as cited by Cicirelli (1987) when reviewing the literature who finds a positive correlationship between general (not health) internal locus of control, life satisfaction and self-esteem.

Results demonstrate only a weak and non-statistically significant positive relationship between health internality of locus of control and self-esteem in the 80 subjects ($r = .200$ with probability of 0.075).

No significant correlation between self-esteem and health internality materialized for those who were prevention oriented either.

Again, the health internality factor didn't move in the predicted direction. This suggests that the experience of responsibility for one's own health is not a simple concept which automatically implies that one also feels more power, or self-respect because one thinks that health is not primarily in the hands of fate or experts. Health internality as defined in the

internality subset by Wallston, Wallston and DeVellis, (1978) may not be closely related to Rotter's general internality of locus of control. Cicirelli, (1987) points out that Rotter's scales are being further developed to better deal with its multi-dimensionality.

Findings for Hypothesis 6

High self-esteem was predicted to correlate positively with high life satisfaction, because both are related to self-concept and are often correlated positively in previous research (Hunter, Linn & Harris, 1982; George, L. K. 1975, cited in Mangen and Peterson, 1982). Their positive co-relationship would also serve to validate the measurement instruments in this study.

Results of Pearson's product moment correlation coefficient for Life Satisfaction and Rosenberg's Self-Esteem Scale was positive at .450 with a probability of .000.

As predicted, life satisfaction correlates positively with self-esteem which supports the literature, the validity of the two measures and the consistency of the respondents.

Findings for Hypothesis 7

If those who have high internality feel more in charge of their own destinies, might they not also feel more confident and demonstrate this confidence with increased loquacity? It was predicted that there is a positive relationship between

internality, loquacity, self-esteem, life satisfaction and participation in organizations, positing that the common variable here would be greater self-confidence. Volume of speech or loquacity, was correlated, using Pearson's r, separately in each of the two groups because the nature of the treatment elicited different volumes from each group.

Volume of speech in Group 1 to:

Self esteem before (advice)	0.318	prob. 0.046
Self esteem after (advice)	0.164	prob. 0.311
Participation in organizations	-0.107	prob. 0.513
Satisfaction in life scale	-0.091	prob. 0.578
Internality of locus of control	-0.062	prob. 0.702

The most notable relationship here is between loquacity and self-esteem as noted by the underlined relationship. In Group 1, apparently those who gave more advice had higher self-esteem before they gave advice than after. This could be possibly explained because Group 1 was notified on the telephone before they had the interview, that they would be asked for advice, whereas in Group 2 they were told they would be giving information. There was a tendency (not large enough to be statistically significant) for those who thought they would be giving advice to score a little higher in the self-esteem scale before that actual experience of giving advice. Since we already know that the subject matter was not one that most of the respondents were familiar with, the experience of giving advice

may not have been as esteem enhancing as was probably expected by the respondents. Those respondents who spoke more (on a subject they were uncertain about), may have experienced a greater sense of disappointment in their performance, hence the lower score on the self-esteem scale for the persons who spoke more, on the second self-esteem scale. An other explanation for this may be that divulging more vulnerability on the self-esteem scale (demonstrating less socially desirable responses) may have corresponded to a greater openness on the part of the respondent. After disclosing a great deal of their ideas during the advice-giving period the respondents may have felt more comfortable disclosing aspects of themselves that they had previously portrayed in a more positive light than they had actually honestly felt.

Volume of speech in Group 2:

Participation in organizations	0.551 Prob. 0.000
Internality of locus of control	-0.015 Prob. 0.927
Satisfaction of life scale	-0.015 Prob. 0.926
Self-esteem before (information)	-0.006 Prob. 0.972
Self-esteem after (information)	-0.066 Prob. 0.685

Only the variable of participation in organizations, correlates significantly with volume of output in the information-giving group.

However, although results did not bear out much of a relationship between loquacity and other variables there was found to be a strong positive relationship in both groups between internality and life satisfaction ($r = .348$ $p. < .002$), a predicted finding.

Summary

A predicted high correlation, borne out by previous literature was found between life satisfaction and self-esteem which speaks for the validity of both measurements and strengthens previous research which found positive correlations between these two constructs.

Life satisfaction was also found to correlate highly with internality ($r = .348$ $p. < .002$) as postulated by the literature (Cicirelli, 1987).

It was hypothesized that advice-giving would increase self-esteem, internality, life satisfaction and participation. This study failed to demonstrate such relationships. It was also hypothesized that those who spoke more might also experience higher self-esteem and internality, participate more and experience greater life satisfaction. It was found that loquacity correlated weakly with self-esteem in one group, strongly with formal group participation in the other and not at all with internality or life satisfaction in either group.

The difference between giving advice and giving information was not large enough, as represented in the proximity of their placement on Arnstein's Ladder of Participation, to create a statistically significant difference in response on internality, self-esteem, participation or life satisfaction. Such a difference, however would have been difficult to find given the small sample and effect size. There was not more than a 23% chance at best of detecting such a small difference between such sizes of populations according to Cohen's power tables (1977).

One of the two confounding factors which affected the results in an unpredictable manner was the fact that only a quarter of the respondents were conversant with the material under study, the concept of preventive health measures as a pro-active stance.

The other confounding factor was that the second information-giving group had by chance almost twice as many prevention oriented subjects in it than the advice-giving group and the prevention oriented persons as we will see in the next chapter had specific and telling qualities which separated them from the rest of the group.

CHAPTER 6: GROUP 1 CHARACTERISTICS RELATED TO RECOMMENDATIONS

The Community and Family Health division of the Ministry of Health, the Matsqui-Abbotsford Community Services and Clearbrook Community Services and other community and governmental agencies, have demonstrated a strong interest in boosting health oriented self-help efforts in the community, for the reasons outlined in the introductory segment of this work.

The following chapter contains the advice of seniors about the best approaches for government and community groups to assist the elderly in their endeavors to remain healthy and independent in the community as long as possible. The information is provided in the format of a condensation of relationships between variables and could be used to support program set-up efforts or program budgetary considerations. A synopsis of these findings will be forwarded to the appropriate governmental department in the Ministry of Health as was advised to the respondents at the beginning of their interview. Other interested groups such as the Golden-Agers, the local chapter of the Healthy Aging Council and the local public health unit will be informed about the contents of these two following chapters.

All of the relationships in this chapter were analyzed using Pearson's correlation coefficient and the level of probability was found to be at least .05 in each relationship mentioned. For greater ease of reading the text only includes the relationships

without their significance levels. Probability statistics may be found in Appendix XV. The correlationships in each paragraph are noted in descending order of significance and the key variable being correlated, is underlined for easier reference.

Group 1 Characteristics

This following section will outline the relationships of the variables in the study to certain key variables: gender, self-reported state of health, prevention orientation, smoking behavior, health internality, health externality, sociability with friends, participation in formal groups, living accommodation, length of time residing in the area, life satisfaction, self-esteem, being coupled or single during actual interview, age, volunteer behavior, church attending behaviors, feeling useful during survey, feeling comfortable during survey.

In Group 1, women were more likely than men to be single and to suggest that more available subsidized transportation would ameliorate the concerns of healthy aging. Women felt more than men, that chance and luck had very little to do with personal health. Women also tended to have more frequent contact with close friends.

Those who reported better health were more apt to report feeling useful and comfortable during the interview. This group felt that they themselves were personally responsible for their health, rather than experts or luck. These self-reported

healthier individuals generally also scored higher on the life satisfaction scale. This healthier group was not as inclined to suggest the need for medical alert response systems as a way to deal with independent healthy aging as was the self-reported less healthy group.

Those persons who were prevention oriented were more likely than non-prevention knowledgeable persons to advocate the role of public health agencies as a necessary service for healthy aging. There were more church attenders in the prevention oriented group than in the non-prevention oriented group. Prevention oriented seniors believed that luck has little to do with personal health and participated more in formal organizations. This group reported more frequent contact with their family and were less liable to smoke.

Those persons who smoked were less likely to have frequent contact with friends and family. Smokers tended to be more health external, that is, they were more likely than non-smokers to believe that luck, chance or fate played a part in their personal health. Smokers also participated less in formal organizations, church activities and volunteer work in the community. Smokers also tended to be less aware of prevention issues, and were less likely to advocate government safety inspections. They were also slightly more apt to be coupled for the interview.

Persons who were more health internal, believing that health is largely their own personal responsibility were much more likely to advocate the use of education of seniors as a strategy to deal with healthy aging. Higher internals reported better health and were in more frequent contact with their families. They reported greater life satisfaction and didn't seem to think as often as health externals that business and free enterprise had responsibility to assist with healthy aging issues. High internals felt more comfortable with the interview.

Health externals, in terms of their belief that luck, chance or fate plays a considerable hand in personal health, didn't have as much frequent contact with friends as health internals did. Health externals didn't participate in as many organizations, and generally felt that the services in place for seniors are adequate and no additional services were required. As mentioned in the previous paragraph, health externals were also more likely to smoke and to be male.

Health externals in terms of beliefs that powerful others such as doctors and nurses are responsible for their personal health omitted the suggestion of walking programs as a strategy for prevention of illness more than did health internals.

Persons who reported more frequent contact with friends as noted in the previous paragraph were unlikely to smoke. They believed that luck plays no part in personal health. Persons who

had frequent contact with friends also reported more contact with family and were less likely to recommend the need for affordable quality housing as often as did those who had less frequent contact with friends. Those who had more frequent contact with friends also felt more comfortable with the survey. This group was more represented by women then men.

Participation in groups was a variable chosen because it might shed light on previous habits with participation which would illuminate if "level of activity" was a deciding factor in participation in the project. It was found that those who participated more in formal organizations were also much more likely to go to church. This correlational was quite high and very understandable as church groups and church activities increased the participation score. High participators didn't believe in the influence of luck in personal health. They were less likely to smoke and more inclined to volunteer in the community than low participators. High participators were generally not coupled during the interview. They tended to live in a senior complex rather than in a detached dwelling and were more apt to be prevention oriented.

If a senior lived in a dwelling (often attached), where the neighbours were in daily contact and assisted one another, these were considered to live in a senior complex. If they lived in detached housing and weren't in frequent contact with their neighbours they were said to be in living in detached dwellings.

Those who lived in a senior complex, tended to report considerably higher self-esteem and participated in more formal organizations. Senior complex dwellers were more inclined to suggest that individuals should not rely so much on agencies to take care of prevention issues.

The Matsqui-Abbotsford area has been a settled farming community for some time, but recently there has been a large influx of newcomers. Length of time residing in the area was an included variable because it could be a factor which might affect senior participation in the project. Respondents who have lived in the area longest tended to report more frequent contact with family. This is presumably because those who have just moved in have had to leave their families elsewhere. Long time residence was related with higher reported life satisfaction and this group was likely to offer suggestions that more public health involvement would benefit the health of seniors.

Persons who reported high life satisfaction also reported high self-esteem. High life satisfaction correlated strongly with feeling useful after doing the interview. Those who reported greater life satisfaction tended to have more frequent contact with their families and were unlikely to advocate greater governmental financial assistance for seniors. High life satisfaction correlated positively with length of time the senior had lived in the area. These seniors were higher health internals in terms of their disbelief in the influence of luck or

others in personal health outcome. High life satisfaction correlated positively with good health.

Those who scored higher in self-esteem were more likely to live in a complex, feel more useful in the interview and advocate less often the medical alert response device as a prevention strategy.

In the survey a husband or wife was randomly selected to be interviewed in a household, but the non-chosen partner could elect to "sit-in" during the survey without participating. Some married partners chose to do this and others didn't. Relationships of variables were analyzed to determine if there was a difference in responses between those who were "coupled" during the interview and those who were alone, married or unmarried. It was found that the person who had his/her spouse present during the interview were much more likely to petition for higher pensions and monetary subsidies as an approach to deal with prevention issues. The interviewed senior with attending spouse was not as likely to participate in formal organizations as persons interviewed singly. Interview partnered persons were also less likely to go to church and more liable to be smokers.

Older persons more often advocated the concept that the individuals, rather than agencies should take responsibility for health services. They were more prone to recommend that medical alert response devices were needed for independent healthy aging.

The older group tended to feel that business and free enterprise should provide more services and subsidies for seniors. The older senior was less vocal in general and didn't advocate as readily, increasing government services to field senior health needs.

As for those who actually volunteered more often, they were more likely to advocate promoting the organization of self-help health groups for seniors. Volunteers participated in organizations more and were also more liable to uphold the idea of individual responsibility rather than agency responsibility for healthy aging issues. Volunteers also smoked less.

Those who took part in church activities also tended to participate much more in formal organizations and be prevention oriented. Church goers were unlikely to smoke and were more probably alone during the interview.

Those who declared feeling most useful in the survey also felt more comfortable in the survey, claimed better health and scored higher on the life satisfaction and self esteem scales. They also reported more frequent contact with their families.

Those who experienced greater comfort in the survey also felt more useful and were much less likely to assert that business should provide more subsidies to seniors to promote healthy aging concerns. Greater comfort with this survey on

health issues was directly related to reported better health and the belief that health was the individual's responsibility. This group tended to report more frequent contact with family and were more likely to be in the quadrant of very healthy individuals.

Group 1 Recommendations and Correlated Characteristics:

The following paragraphs are ranked in descending order of frequency of suggestions made about a particular idea recommended as a solution to healthy aging problems or issues. The key recommended variable is underlined and all of the relationships are significant to .05 probability, but mentioned in descending order of power of significance.

The most often cited suggestion was that more education was needed about prevention of illness and the promotion of healthy aging for seniors. Those who gave this type of suggestion tended to be the persons who spoke more, scored higher on internality in health locus of control, generally expressed more ideas overall in the interview and also suggested that quality affordable housing would contribute to the solution of health problems.

The next most frequently touted suggestion offered by the seniors, when asked what they would advise is needed to promote wellness, was the notion that seniors should join together and organize self-help groups and organizations in order to address issues of healthy aging. These same seniors were more likely to volunteer in the community and to note that the individual should

take more responsibility for health issues rather than relying on agencies. Self-help promoters were also partial to recruiting volunteers as a solution to the problems of independent healthy aging.

The third most championed notion was that more government services should be provided to facilitate independence for seniors in their homes, with assistance from such services as provided by public health workers and homemakers. The respondents who counselled this type of solution to senior health needs tended to be younger. They were not as likely to note that the government should solicit advice from the seniors when developing policy. This group were also more disposed to suggest that more homemakers should be recruited and additional government finances should be provided, (increased pensions and subsidies).

Some of the suggestions centered around the idea that it was the responsibility of the government to provide direct additional funds for seniors in provisions such as higher pensions and subsidies. Those who gave this advice were more likely to suggest that business and free enterprise agencies also provide more subsidies and services for seniors. They were likely to be coupled with their spouse during the interview. They reported less life satisfaction and also advocated the need for additional government services for seniors.

Other oft promoted recommendations centered around the concept of individual responsibility for health care. This group tended to live in a senior complex, to be older and they were more apt to volunteer in the community. They understandably were also more interested in promoting self-help groups such as neighbourhood watches and walking programs.

Affordable quality housing was a frequently cited solution to healthy aging issues. The seniors who espoused this concept tended to have significantly more frequent contact with friends. This group were also proponents of the need for more education for seniors on prevention issues. They were inclined to be more voluble and advocated the need to recruit more volunteers to assist with healthy aging concerns.

Some of the recommendations focussed on the need for affordable subsidized transportation in order to answer the questions surrounding prevention issues. Those seniors counselling this type of solution were more likely to be women and were not likely to be in the group that thought government services and funding were already sufficient and adequate to serve seniors' needs.

Various responses recommended that the government should solicit seniors' opinions and advice when determining policy and services which would affect seniors' health. These seniors were not as apt to advocate as much government services as a solution

to health problems as those who didn't suggest that soliciting seniors' opinions from the government was necessary.

Several of the responses suggested there was a need for more government safety inspections for fire safety, falling hazards and security for seniors. Seniors who brought forth these notions also tended to speak more in the interview and were less likely to be smokers.

About 4% of the suggestions focussed on making available an "Emergency Response Alert Device" attached to their bodies and connected to a medical center in order to prevent long unattended periods of incapacitation. Those who volunteered this notion tended to be older and less vocal. They were inclined to feel that the services available for seniors were already adequate and sufficient and didn't need improvement. This group scored lower on the self-esteem questionnaire and reported feeling less healthy than those who didn't suggest the need for an emergency response alert device.

Persons who were more likely to suggest recruiting volunteers (such as friendly visitors) to deal with problems in healthy aging tended to be German in ethnic ancestry. They also advocated affordable quality housing for seniors and more self-help groups to promote prevention of illness.

Several responses were made around the need for more swimming and senior recreation facilities.

Other recommendations were that there should be more public health nurses visiting seniors in their homes. Those giving this advice were very likely to be more prevention knowledgeable and didn't believe that luck or chance had anything to do with personal health. They tended to have lived longer in the area.

Some of the advice presented the notion that more homemakers would resolve problems around independent healthy aging. Those who suggested the need for more homemakers already tended to advocate more government services generally.

Almost 2% of the suggestions centered around the idea that services for seniors were already entirely adequate. These seniors tended to believe that luck, chance and fate had no influence on health (ideas of self-sufficiency). This group were apt to be of other ethnic origin than English or German (Ukrainian, Dutch, Scandinavian etc.) They also were not likely to be in the group that saw affordable subsidized transportation as a necessity for good health but they tended to advocate the need for emergency medical alert devices attached to the body to enable quick help in emergency situations.

Suggestions about promoting walking programs for seniors were presented by some seniors. Those who advocated more walking

as a solution to increasing senior wellness also tended to be more internal as far as "powerful others" such as doctors and nurses. In other words, they felt that doctors and nurses and health experts didn't really control their health as much as they themselves personally did. More of the group were in the quadrant of self-reported very healthy seniors but this group did not participate in formal organizations as much.

The notion that business and free enterprise systems should give more subsidies and service assistance to seniors was one of the least frequently suggested responses to about solutions for prevention problems. These seniors who suggested that business should contribute more to seniors were more likely to also advocate the need for more government financing in terms of subsidies and increased pensions in general. Those who responded in this manner tended to be less comfortable with the interview and less internal (more external) about personal health responsibility. They also tended to be older.

Summary

In descending order of frequency of suggestion the following recommendations were made by the respondents to promote healthy and independent aging in the community: (1) education on the topic of prevention, (2) self-help groups, (3) increased governmental services, (4) increased pensions, (5) individual responsibility and effort, (6) better quality affordable housing, (7) better subsidized transportation, (8) governmental effort to

seek seniors' advice, (9) more governmental safety and fire inspections, (10) subsidized and available medical alert response devices, (11) more community volunteers, (12) more seniors' facilities, (13) more public health involvement, (14) more homemakers, (15) services are already sufficient and adequate, (16) walking programs for seniors, (17) more business subsidies and services.

Conclusions

It is to be noted that the two most often suggested remedies for healthy aging concerns were not recommendations which required huge governmental outlay. In fact, of the 17 suggestions, 7 were not program costly (1) education, (2) self-help, (5) individual responsibility (11) more volunteers (12) services are already sufficient (16) walking programs (17) more business subsidies.

However, several of the suggested solutions for prevention of illness in seniors did require additional funds: (3) additional government services, (4) additional government pensions and subsidies (6) affordable quality housing for seniors (7) subsidized transportation (12) more facilities for seniors (13) more public health services (14) more homemaker services.

CHAPTER 7: GROUP 2 CHARACTERISTICS AND RESOURCE CITINGS

Group 1 was asked what they would advise is needed in the community in order to best deal with healthy aging issues such as general health concerns, exercise, nutrition, safety and isolation. Group 2 was asked what resources they would utilize or with whom they would consult about these same areas of general health issues, exercise, nutrition, safety and social isolation.

This resource-use information may be useful to a community center, to the local healthy aging association and other direct governmental agencies or to self-help groups promoting senior health initiatives because it gives indications about which resources are well-known, which ones are under-utilized and what characterizes the seniors who have or do not have program knowledge.

The second group's responses were analyzed using Pearson's product moment correlation (Pearson's r) formula. Following are the community resources which were cited in descending order of frequency. Along with this citation are correlations to other variables in the survey: other resource citations, health indicators, social indicators and demographic characteristics. The key variable in each paragraph is underlined for easier reference and the relationships are described in descending order of significance. All of the relationships mentioned are up to the p. <.05 level of significance.

Group 2 Characteristics

This following section will outline the relationships of the variables in the study to selected key variables: gender, volunteer behavior, sociability with friends, membership in formal organizations, type of dwelling, frequency of contact with family, status, life satisfaction, health internality, prevention orientation, self-esteem, smoking behavior, age, length of time residing in area and verbosity during the interview.

In Group 2 women (age group of 60-75) tended to be single more often then men by a wide margin and to be unattended by a partner for the interview. They were more likely to go to church functions and participate more frequently in formal organizations. Women tended to be more verbal during the survey. They expressed more ideas and were more likely to be in the quadrant of very high participators in formal organizations. Women referred more often to church and friends as a health resource. Women were also more prone to provide volunteer work in the community and were more likely to be prevention oriented.

Volunteer work correlated positively with participation in formal organizations, church attendance, verbal volume during the interview, having more ideas and being a woman. Volunteers cited friends and homemakers as a resource for prevention of illness. Volunteers in Group 2 were more likely to be German in ethnic origin.

Those who had more frequent contact with friends were more inclined to attend church functions and participate in formal organizations. Respondents who had more frequent contact with friends were likely to be more prevention oriented, cite the church as a resource and report feeling quite comfortable with the interview. They were not as likely to say "I don't know" to the questions on resources. More women were represented in this group and persons who reported frequent contact with friends scored higher on the self-esteem scales. This group was also more likely to be in the quadrant of very high participators in formal organizations than those who didn't have as much frequent contact with friends.

The seniors who were frequent participators in formal organizations were more oriented to church functions and volunteering in the community. They had more contact with friends and had more to say in the interview, with more ideas. High participators cited church as a resource more frequently. They tended to be women and were more prevention oriented. High participators were more likely to mention self-help groups. High participators said "I don't know" less in the interview and cited extended medical benefits more often as a possible resource. They were more apt to consult with their friends on health issues, were less likely to smoke and more probably resided in a housing complex.

Those seniors who lived in a network oriented housing complex were very apt to cite their housing management or neighbours as a health resource. They were quite unlikely to be in the quadrant of high frequency of contact with their family members. They pointed out more frequently that homemakers and the church were a resource. Senior complex dwellers tended to speak more and not to refer to relatives as a resource as often. They had less frequent contact with family.

Seniors on the other hand who had more frequent contact with family members were less liable to cite housing management and housing complex "others" or friends as a resource. They spoke less in the interview and didn't mention neighbours much either, as a source of information or assistance. These seniors were more likely to be coupled during the interview and more frequently lived in detached housing.

Married persons didn't as often use housing management or friends as a resource. This is congruent with the findings that in the population, the ratio of married men to married women is higher, thus when looking at large population characteristics, proportionately, married persons were more likely to be male and living in detached housing.

Seniors who chose to keep their partner as a witness during the interview spoke less. They were more likely to be men and didn't as often mention friends as a source of information and

assistance. More of them reported frequent contact with their families and were less likely to participate in formal organizations or live in a senior complex.

Those who reported high life satisfaction also scored high on the self esteem scales. They were more likely to quote the hospital dietician as a resource and responded "I don't know" less often. They used the media, books, newspapers and magazines more for information sources. They also felt they were more personally responsible for their health (internal) , than did those who reported lower life satisfaction.

High internals, those who personally took responsibility for their health were mostly younger and perceived themselves as healthier. They paid more attention to the media, books, magazines for information on prevention issues and were less likely to cite extended care benefits as a help for healthy aging. High internals reported greater life satisfaction.

Seniors who were health internals in that they didn't believe that luck or chance plays a part in personal health were more likely to believe that "powerful others" such as doctors and other health experts do not control health issues. These high internals were prevention oriented and scored higher on the self-esteem scales. They were more likely to cite free enterprise resources such as health stores and aerobic classes, as prevention resources. High internals reported being more

comfortable during the interview. They were more likely to be German and didn't cite doctors as a resource as frequently as externals did. They were more apt to mention Matsqui-Abbotsford Community Services, and public health workers as sources of information and assistance.

Those seniors who were more health internal in terms of their belief that experts such as doctors and nurses didn't really control their health, also didn't believe that chance, luck and fate influenced their health either. They had higher self-esteem but didn't cite friends as a resource as often as externals did. They did quote public health more often as a source of assistance in prevention matters. They were however less likely to rely on government publications although they referred to the Matsqui-Abbotsford Community Services more often than externals did.

Those seniors who were more prevention oriented and knowledgeable reported more frequent contact with friends, use and referral to free enterprise health and leisure businesses. They responded "I don't know" less often, participated more in formal organizations and tended to believe that luck and chance had little to do with health. Prevention oriented persons were more likely to go to church, be German in ethnic origin and didn't mention their doctor as often as a source of information and assistance. Prevention oriented persons tended to live in a

housing complex, refer to social workers, counsellors, paid-coordinators, community workers and city hall as a resource.

The seniors who scored higher on the self-esteem scales tended to report higher life satisfaction and believe experts such as doctors or luck don't control personal health much. They noted higher levels of comfort with the interview, also reported more frequent contact with friends and attended church functions more.

Smokers tended to be younger, non-church goers and non-joiners in that they didn't belong to as many formal organizations as non-smokers.

Older persons are more external in terms of feeling that they don't have personal responsibility and control of their health. There were very few super high internals in this group. Older persons were less likely to smoke, be married and not likely to report feeling that they have excellent health. Older persons were more prone to citing a homemaker as a resource for healthy independent aging. They were less likely to refer to government workers as possible avenues for assistance in health matters (such as social workers and counsellors) and they were more likely to go to church.

Those seniors who have lived the longest in the area also tended to refer to friends as an independent healthy aging resource.

Part of the interview was typed on a lap top computer, verbatim. Therefore the actual number of words was recorded. Those persons who were more verbal, expressing themselves more voluminously also were more likely to have more ideas and refer to the church and their housing complex as a resource more often. They were apt to participate in formal organizations. They were also more prone to cite friends and government education material as a resource. They tended to be of other ethnic origin than English (English persons spoke somewhat less). Talkers were more likely to use books, magazines and the media as sources of information and volunteered in the community more. Talkers were more likely to live in a complex and didn't have a partner as a witness to the interview as often. They didn't report as frequent contact with families and were more likely to be German in ethnic origin. They were also more apt to be women and church attenders.

Group 2 Resource Citings and Characteristics

The following paragraphs are arranged in descending order of resource citing frequency. In other words, those resources most frequently referred to come first. The resources are underlined and related characteristics are noted also in descending order of

statistical significance. All of the relationships are significant up to the p. (.05 level.

The most often quoted resource was the individual him/herself indicating self-sufficiency as an approach to dealing with prevention issues. Those who were most likely to choose this type of response were inclined to report better health and they were somewhat less apt to cite the doctor as a resource in prevention concerns. Although this category was cited the most often, only a few individuals were responsible for this frequency of response.

The doctor was quoted almost as often as the self on questions about prevention resources (nutrition, exercise, loneliness, general health etc.). Prevention oriented persons didn't quote the doctor as a resource as much as non-prevention oriented persons did. Those who were most likely to quote the doctor as a source of information and assistance tended to believe that luck, chance and fate governed their health.

Relatives, especially nurses were noted as the third most frequently cited resource. Persons who were inclined to use relatives as a resource tended to live in detached housing. This fits in with other results that demonstrated that those living in detached housing tended to be in closer contact with their families and as yet unwidowed.

The respondents were given ample permission to say "I don't know" as they were told that it gave the agency information about what resources were well advertised and which weren't. Those individuals who frequently said "I don't know" to questions about who they would contact or where they would go if they sought information on health matters tended not to be so prevention oriented and attended church functions less. They did not have as frequent contact with close friends and scored lower on the life satisfaction scale. They were more unlikely to participate in formal organizations.

Matsqui-Abbotsford Community Services and services such as Meals on Wheels ranked 4th in the resources referred to. Those who most frequently quoted this resource tended to be health internal in that they didn't believe doctors or nurses, luck, chance or fate had anything to do with personal health. They also tended to report better health. No one ethnic grouping quoted community services more than an other and there were no differences between those who mentioned this service and those who didn't, in the variables of age, gender or other characteristics.

The fifth most frequently quoted resource was the housing complex members, neighbours and management. The seniors who were more likely to cite this resource tended to live in a senior complex and speak more during the interviews. They were not likely to be in as frequent contact with their families and were

not as likely to be married. These findings support those of the previous paragraph which point out that those who tend to live in complexes rely more on their housing resource to replace the role of their family.

The next most noted information/assistance source were friends. Who are the seniors most likely to quote friends as an oft used health resource? Seniors who relied on friends as a prevention resource tended to speak much more, (quite a wide margin over those who didn't cite friends). They were quite likely to claim their church as a resource and not have as much frequent contact with their families. They were more apt to be other than English in ethnic descent. Persons who cited friends as a healthy aging resource were also inclined to believe that doctors and nurses had quite a bit of control over their health. They had lived in the area longer and relied on government publications. They were more probably single, widowed or divorced and very few were in the quadrant of reporting extreme close contact with family members. This group participated in formal organizations more often and were more liable to cite neighbours as a resource as well as the media, books and T.V.. They were a bit more likely to volunteer in the community.

Self-help groups such as walking programs and neighbourhood watches were the next most frequently cited resource. Seniors who referred to self-help groups as a resource also tended to cite government information booklets as a resource quite often.

These respondents participated in formal organizations to a higher degree and cited the hospital dietician in questions of nutrition. Seniors who recommended self-help groups were more likely to refer to government services and workers as a reference and resource.

The 8th most cited resource were the non governmentally run, free enterprise businesses such as aerobic centers, toning parlours, health food stores, bowling alleys etc. Seniors who cited this type of resource tended to be prevention oriented, had more ideas, spoke more and cited free enterprise information outlets, such as the media, books, ads and magazines. They tended not to believe in the role of fate, chance and luck in terms of personal health.

Government workers, such as social workers, counsellors, paid coordinators, city hall personnel, etc. were the next most quoted source of information and assistance. Those who cited this type of resource, tended to be prevention oriented. They often mentioned self-help groups such as neighbourhood and walking programs as an assistance for healthy aging. Government workers were not cited as often by other ethnic groups than German and English.

Public health nurses and workers were quoted as a resource by seniors who were much more likely to be in the quadrant of those who scored very high on the self-esteem scale. These

respondents also tended to believe that powerful others such as doctors or experts have little to do with control of personal health. Seniors who referred to public health also tended to believe that luck, chance and fate have little to do with personal health.

Homemakers were suggested as a resource by those seniors who were more likely to live in a complex, were older and slightly more likely to be volunteers.

Church and church based groups were the next most quoted resource. Seniors who referred to this source of assistance and information were more verbal by a large margin. They were much more likely to go to church and express more ideas. This group was more inclined to list friends as a resource. They participated more in formal organizations and had more frequent contact with friends. These respondents also tended to be German in ethnic origin and female.

Media, books, newspaper and magazines were presented as a resource for some of the responses on source of prevention information. The seniors who noted this type of resource tended to be more verbal. They cited free enterprises such as gyms and health spas as resources more often, were more health internal in that they felt more responsible for their personal health. They were inclined to quote their neighbours as a resource in healthy aging.

Medical extended benefits, such as chiropractor, physiotherapist, masseuse, pharmacist etc. were the next most often quoted resource for prevention questions. These seniors tended to be more health external in that they felt less personal responsibility for their health. They participated more in formal organizations and tended to report poorer health.

On questions about resources for nutrition the hospital dietician came up more frequently than expected. Those who cited the hospital dietician also reported higher life satisfaction, and more often stated that self-help groups were a potential solution for prevention concerns.

A few of the responses indicated that neighbours were used as a resource for information and assistance. These seniors seemed to be of other ethnic origins than German and English (rather they were Ukrainian, Dutch, Polish, French, Scandinavian, Italian). This group more often quoted government informative sources and garnered information from the media, books and magazines. They were not in frequent contact with their families which may also explain why they relied on neighbours and other sources of information such as the media, T.V. newspapers and their friends. This group didn't include as many English persons.

Summary

The most often cited resources quoted by the respondents in Group 2 as aids in solutions for independent healthy aging problems, in descending order of frequency of citation were: (1) the individual him/herself, (2) the doctor, (3) relatives, especially nurses, (4) didn't know what resources they would access in relation to the questions (5) Matsqui-Abbotsford Community Services (Christina Ragneborg, senior coordinator) or one of its programs such as Meals-on Wheels, (6) housing complex management or neighbours in the housing unit, (7) friends, (8) self-help groups (9) free enterprise businesses such as health-food stores or gyms etc., (10) government workers, such as social-workers, counsellors or paid coordinators in government centers, (11) government publications, such as pamphlets, (12) homemakers, (13) their church, (14) the media, T.V., books, newspapers etc., (15) medical extended care benefits such as chiropractors, masseuses, pharmacists, physiotherapists etc., (16) the hospital dietician, (17) neighbours.

In terms of characteristics, Group 2 only differed significantly from Group 1, by chance, with its increased number of persons who were German in ethnic origin. However, being German did correlate with certain cultural characteristics connected with more likelihood of prevention orientation and greater church attendance.

CHAPTER 8: KEY VARIABLE RELATIONSHIPS IN BOTH GROUPS

The previous two chapters presented data on the relationships between key concepts and other variables within the context of each separate interviewed group. This chapter on the other hand combines certain noteworthy variables common to both groups. The results are more powerful because in this process the questionnaire and scale outcomes are pooled for the whole complement of the 80 interviewed respondents.

Utilizing the results from the whole group, this section will examine the findings in this study in relationship to the various premises introduced in the literature review on the variables connected to the constructs of participation, self-reported health and internality.

Participation Correlates

The following section examines the sociability variables of participation in organizations and frequent contact with friends, in context of their relationship to other variables in the study and findings are compared to the literature.

McPherson and Kozlik, (1987) discovered in reviewing the literature that there was a decline in social involvement as people aged. This particular study in Abbotsford only looks at participation of seniors between the ages of 60 to 75 (considered to be the "young-old") and finds that there is no statistical

relationship between aging and less participation in formal organizations, within the studied age span. Interestingly enough, however, there does seem to be a slight non-statistically significant decline in frequency of contact with the family coupled with a statistically significant rise in frequency of contact with friends as the seniors increase in age between 60 and 75 ($r = .231$ p. $<.039$). This may be explained by the possibility that with increasing age, a senior will likely lose his/her spouse and will consequently begin to rely more on friends for social supports than on family. Therefore we can conclude that within this age group there does not seem to be a change in formal group behavior. However in the informal realm, there is an increase in contact with friends with age.

McPherson and Kozlik, (1987) (citing a study by Hoffman, 1985), note that health can affect participation in activities in the ages between 62 and 74. On page 9, Chapter 1 a study cited by Blunt (1982) demonstrates a negative relationship of formal organization participation and health. Health, however, is in this particular Abbotsford study not statistically related to the variable of participation in organizations, possibly because of the fact that the Abbotsford sample did not include institutionalized, non-ambulatory seniors. Table 25 outlines the relationships with participation in organizations and other factors.

Table 25

Statistically Significant Relationships Between Participation in Organizations and Other Variables

Those who participated more in formal organizations also tended to:	Pearson's r	Probability
attend church more.	.711	.000
volunteer more in the community.	.503	.000
be more prevention oriented.	.415	.000
have more contact with friends.	.378	.001
be less likely to smoke.	-0.361	.001
live in a senior complex.	.350	.001
not be coupled during interview.	-0.316	.004
participate in survey follow-up.	.265	.018
be women	.262	.019
report feeling useful in survey	.249	.026

To be noted in Table 25 are the clustering of two key concepts; sociability and health attitudes/habits. It seems that those who are more involved in their community are also more involved in their health, not only with pro-active attitudes (prevention orientation) but also with healthier habits (non-smoking).

The findings in this study do not indicate a connection between life satisfaction, self-esteem and participation in organizations as noted by Cutler (1987). Life satisfaction seems to be, (see Table 30), much more related to personal health.

Another form of sociability is church activity and membership (see Table 26).

Table 26

Statistically Significant Relationships Between Church-Going Activities and Other Variables

Those who attended church more also tended to:	Pearson's r	Probability
participate more in formal org.	.711	.000
have more contact with friends	.447	.000
be more prevention oriented	.435	.000
volunteer more in community	.391	.000
be less likely to smoke	-0.364	.001
be German in ethnic origin	.298	.007
not be of British Isles origin	-0.286	.010
not be coupled in interview	-0.269	.016
live in a senior complex	.261	.019
be a woman	.252	.024
have higher self-esteem	.243	.030
be older	.228	.042

Though individuals may believe that luck, chance or fate do not control their physical well-being, this does not necessarily mean that they assume personal responsibility for their own health. We can see in Table 26 that church going activities do not correlate with internality in terms of personal feelings of responsibility for health. This might be explained by the

finding that several church attending respondents staunchly maintained that God determined the state of their health.

Participation in church activities has been associated with "higher levels of psychological well-being" (Cutler, 1987, p. 298). Indeed those who engage in more church activities may experience increased well-being, but in the Abbotsford study, this well-being translates more into other forms of sociability and positive health habits and attitudes.

However (as with participation in formal organizations in general), we note that sociability, (as in attending church activities) and positive health habits and attitudes are not associated with increased life satisfaction, or actual reported better health (see Table 25 & 26). All three clusters (participation in formal organizations, church going activities, frequent contact with friends) describe sociability patterns outside of the home and family and illustrate a strong connection to health attitudes, habits and social participation.

Whereas Table 25, and 26 describe relationships to social participation, Table 27 demonstrates relationships to frequent contact with friends. We note the absence of association in this cluster to increased life satisfaction, self-reported better health and internality, with the exception that church attendance is correlated to an increase in self-esteem. There is no

relationship to increased contact with friends and living in a complex, but friends are more relied on with progressive age.

Table 27

Statistically Significant Relationships Between More Frequent Contact with Friends and Other Variables

Persons who reported more contact with friends tended to:	Pearson's r	Probability
attend church more.	.447	.000
participate in groups more.	.378	.001
report more comfort in survey.	.370	.001
smoke less.	-0.340	.002
be more prevention oriented.	.335	.002
be women.	.324	.003
have more contact with family.	.321	.004
not believe luck controls health.	-0.280	.012
be older.	.231	.039
report feeling useful in survey	.229	.041

In Chapter 1 Bennett (1980) postulates that isolation creates problems which can affect the elderly person negatively, both mentally and physically. There seems to be no substantiation of this claim in the Abbotsford study, because those who claim higher life satisfaction do not also claim to be very involved in their community. Smoking behavior, however, which has been incontrovertible determined to be detrimental to health is related negatively to sociability as we can see in

Table 28. Smokers do not seem to associate greatly with others outside of the home and they tend to be younger.

Table 28

Statistically Significant Relationships Between Smoking and Other Variables

Those who smoked were *less* likely to:	Pearson's r	Probability
attend church	-0.364	.001
participate in formal org.	-0.361	.001
have frequent contact with friends	-0.340	.002
be prevention oriented	-0.267	.017
be older	-0.264	.018
have frequent contact with family	-0.251	.025

It is evident when Table 28 is examined that smoking is an activity connected with persons who are socially isolated. Either this is because smokers are social isolates to begin with and they have not had the opportunity to have been influenced by others to stop smoking or because smokers feel unwelcome in the company of others. Of course, both may apply, as the smoker may have felt uncomfortable in the company of others originally and thus has never found any reason to stop smoking, as the habit offended no one. Interestingly enough, smokers did not report poorer health, poorer self-esteem or more health externality. However, there are less smokers in the older age group.

Neither church participation, participation in organizations and frequency of contact with friends is statistically related to life satisfaction or reported better health. What characteristics relate to better health? Table 29 includes the statistically significant relationships to reported better health.

Health Correlates

According to Table 29, life satisfaction, feelings of usefulness, experienced comfort in the survey and internality are all related to reported better health. Note again that sociability does not figure into the relationship with health and life satisfaction. Women are not reporting significantly better health than men, (although they live longer) nor young people superior health to the old. Married persons are not reporting better health, nor are persons living in a complex. There are no ethnic differences either in self-reported health.

We note also that in Table 29, self-reported better health is not statistically related to prevention orientation or to the concept that luck, chance or fate does not control health, which demonstrates that prevention orientation may not be a factor determining actual health. However there seems to be a strong cultural component influencing the construct of prevention orientation. When the German population is removed in the study, the construct of prevention is linked to better health, increased life satisfaction and more contact with family as well as the factors outlined in Table 31; participation in formal

organizations, church attendance and frequent contact with friends.

Table 29

Statistically Significant Relationships Between Reported Health and Other Variables.

Persons who report better health tend to report more:	Pearson's r	Probability
health internality.	.409	.000
comfort with survey	.338	.002
feelings of usefulness in survey	.312	.005
frequent contact with family	.238	.033
life satisfaction.	.231	.039

We must assume that studies undertaken such as these have the underlying premise that they attempt to benefit the studied population in some profound and meaningful manner. Such an attempt would possibly aim at a wide reaching underlying construct such as improving health or life satisfaction. What seems to be connected to life satisfaction in the elderly? The literature points out that life satisfaction is intimately related to health: "Health emerges as the most potent predictor of subjective well-being. However, self-rated health is a much stronger predictor of subjective well-being than physician-rated health (Okun, Stock, Haring, & Witter, 1984)" (Okun, 1987). Table 30 outlines the Abbotsford study's life satisfaction correlates. To be noted is that life satisfaction correlates with more frequent contact with family rather than more frequent

contact with friends, which does not figure with increased life satisfaction, but rather with increased age.

Table 30

Statistically Significant Relationships Between Life Satisfaction and Other Variables

Persons with higher life satisfaction scores also tended to report higher:	Pearson's r	Probability
self-esteem.	0.450	.000
health internality.	0.348	.002
frequency of contact with family.	0.266	.017
better health.	0.231	.039

Prevention orientation is linked to the sociability clusters of participation in organizations, church-going and frequency of contact with friends. Table 31 outlines other correlates to this construct.

Again, we note, as in other clusters, prevention orientation is not related to life satisfaction, self-esteem, better health, or more frequent contact with family. Prevention orientation, however is very strongly linked to the concept that luck, chance or fate does not control health, yet it is not necessarily connected to the idea that the individual him/herself is the responsible party in personal health (health internality). This qualified notion that chance is not responsible, but neither may be the individual could be linked to the individual's belief in the influence of God. The correlations demonstrate that those

who attend church more frequently do not believe in chance affecting health, but they do not necessarily report feeling greater personal responsibility for their health either.

Table 31

Statistically Significant Relationships Between Prevention Oriented Persons and other Variables

Prevention oriented persons tend to:	Pearson's r	Probability
attend church more.	.435	.000
participate more in formal org.	.415	.000
not believe luck controls health.	-0.405	.000
have more contact with friends.	.401	.000
be German.	.356	.001
smoke less.	-0.267	.000

Internality Correlates

Does health internality, the construct of health internal locus of control, (that the individual him/herself is ultimately responsible for personal health) differ noticeably from the construct of prevention orientation? Where does this concept fit in with the various clusters?

We can see from Table 32 that health internality does not correlate negatively or positively with participation in organizations, gender, status, frequency of contact with church, family, friends or organizations, type of dwelling, self-esteem or smoking behaviors. Health internality unlike general

internality doesn't seem to correlate positively with self-esteem (Aloia, 1973; DeCoster, 1987; Teitelman, 1983).

Table 32

Statistically Significant Relationships Between Health Internality and Other Variables

Persons who were more health Internal also tended to:	Pearson's r	Probability
report being healthier	.403	.001
report higher life satisfaction	.348	.002
be younger	-0.299	.007

In Chapter 1 it was noted that it was not known if internality decreased with age. The Abbotsford study demonstrates that health internality (not general internality of reinforcement) does decrease between the ages of 60 and 75. Interestingly, there is no evidence that actual self-reported health or life satisfaction decreases with age in this study (there is a slight non-statistically significant decrease in health with age, but no decrease at all in life satisfaction). This is in spite of the fact that these two variables do correlate positively to health internality (see Table 32).

Summary

Upon examination of the different clusters surrounding participation, health and internality, it becomes possible to discern patterns of relationships which condense to a few underlying concepts:

(1) Sociability, that is, participation in formal organizations, is surprisingly unconnected to self-esteem, life satisfaction or better self-reported health except for the fact that church attendance is linked to increased self-esteem.

(2) Prevention knowledge or orientation is not to be confused with health internality. Prevention orientation seems to be more connected to the sociability factor. The idea of prevention may even be a construct created and maintained in the social climate. To support this notion, prevention orientation figures in all of the high sociability clusters and is negatively correlated to smoking which is practically the only completely "non-social" cluster. However, if the most salient cultural component of Germanic ancestry is considered and the persons of German extraction are left out of the correlationships, than prevention orientation does correlate significantly with health, life satisfaction and closer contact with family, as well as with more attendance in church activities and more participation in organizations and with friends. Thus the cultural component influences this construct to some notable degree, but not in ways which can be easily explained.

(3) The concept of not believing that luck or chance has anything to do with health is much more positively correlated to the construct of prevention orientation than to "internality" which it is a subset to. (Prevention to health locus of control-

chance, r = -0.405 p. < .000 with a high score meaning less belief in chance whereas there is no statistical relationship at all to internality and the concept of prevention). In other words, those who are prevention oriented do not necessarily believe that they themselves are responsible for their own physical well-being as much as they believe that luck has nothing to do with health. Some respondents, who are church attenders believe that God determines health, which can be interpreted to mean that, luck does not control health and neither does the individual.

(3) Health internality is as its name implies, more of a concept which is not seemingly socially driven and less dependent on influences from outside of the home. Health internality appears to be, a much more powerful construct than prevention orientation or sociability since it is related fairly exclusively to life satisfaction and better health. It is not associated with church attendance or the belief that luck or chance do not control health. Health internality is not related either to the concept that doctors, nurses and other health experts control health. Health internals simply attach a greater amount of importance to their own responsibility in controlling their physical well being.

(4) Those who are health internal, although they do not socialize overly outside of the home are not true isolates as they tend to report frequent contact with their families.

(5) Smokers on the other hand can be categorized as much more socially isolated because they associate neither with family, friends or strangers in organizations. They do not however report lower life satisfaction, self-esteem or worse health.

CHAPTER 9: SUMMARIES, CONCLUSIONS AND RECOMMENDATIONS

This chapter summarizes and draws conclusions about the two distinct parts of this project, the survey component and the experimental component. The survey element is the type of advice given by the seniors in Group 1 as well as the resource citings by Group 2. The experimental element are the results of the hypotheses and what elements of the study support or refute current literature.

This chapter also notes and draws conclusions about the key relationships in the study. Associations to the background literature are construed throughout and some recommendations are included with each section.

SURVEY COMPONENTS OF THE PROJECT

What Seniors in Group 1 Advised was Needed in the Community to Promote Healthy Aging

Group 1, the advice-giving respondents gave the following recommendations about what is needed in the community to promote healthy, independent aging, in descending order of frequency: (1) more education on the topic of prevention, (2) more self-help groups, (3) increased governmental services, (4) increased pensions, (5) individual responsibility and effort, (6) better quality affordable housing, (7) better subsidized transportation, (8) governmental effort to seek seniors' advice on health matters, (9) more governmental safety and fire inspections, (10)

subsidized and available medical alert response devices, (11) more community volunteers, (12) more seniors' facilities, (13) more public health unit involvement, (14) more homemakers, (15) services are already sufficient and adequate, (16) walking programs for seniors, (17) more business subsidies and services.

A sizable number of the suggestions were not capital intensive and could make full use of the concept of recruiting seniors to assist seniors.

Recommendations

If a government or community agency were to examine these results with promoting healthy aging goals in mind the most efficient approach might be to provide more education for seniors about prevention issues and to recruit already motivated seniors to do this whilst encouraging self-help initiatives. Because of their sheer frequency it seems sensible to combine several of the first suggestions. Thus we could propose that those seniors who are already health oriented could be recruited to assist in *self-help* endeavors to *educate* other seniors in their homes about prevention issues. If smokers were a population (one quarter of the respondents were smokers) that were deemed necessary to reach, it is obvious that such an effort could not be successful if attempted through any of the usual social channels. Here again, intervention might best be undertaken by communicating directly to the person in the home.

Specific recommendations can be combined keeping in mind the self-help model, budgetary concerns and promoting education. Some of these suggestions could be implemented without monumental costs to the government, such as:

(1) stepping up and enforcing legislated safety and fire inspections within the structures of building codes, housing and personal insurance policies.

(2) providing educational and suggestion seeking material in the same envelope as the pension checks.

(3) encouraging shopping mall managements to promote walking and other senior programs within the mall structures during lighter or non-shopping hours.

(4) encouraging businesses to provide delivery and other transportation services for seniors with a tax shelter incentive.

(5) promoting senior volunteer work within existent public, governmental and community organizations and structures by providing trips, special membership privileges, bonus lottery opportunities, special publicized community recognition or other valued enducements as incentive to assist with healthy aging enterprises.

(6) opening up existing facilities for additional hours to service community groups at appropriate hours, staffed with community volunteers.

(7) provide tax shelters for private homes who rent quality housing for seniors within their premises, whether they are relatives or not.

Since self reported better health and higher life satisfaction were correlated with internality and more frequent contact with family members, perhaps these connections should be strengthened in the effort to promote healthy aging. These relationships could be enhanced with:

(1) encouraging more research about what creates and maintains health internality.

(2) encouraging additional research about what enhances and maintains close family ties.

(3) enabling seniors to remain in closer contact with their families, with appropriate tax rebates, transportation and telephone subsidies.

(4) increasing public education about health internality issues to promote more personal responsibility for preventive health care.

(5) involving church and other senior organizations to acquire additional responsibility for their own health in the internality education process, since those who participate in the community are already prepared by virtue of their inclinations to pro-active health attitudes and habits.

What Resources Group 2 (Information Giving) were Most Apt to Cite in Response to Inquiries about Healthy Aging Issues

The most often cited resources quoted by the respondents in Group 2 as aids in solutions for independent healthy aging problems, in descending order of frequency of citation were: (1) the individual him/herself, (2) the doctor, (3) relatives, especially nurses, (4) didn't know what resources they would access in relation to the questions (5) Matsqui-Abbotsford Community Services (Christina Ragneborg, senior coordinator) or one of its programs such as Meals-on Wheels, (6) housing complex management or neighbours in the housing unit, (7) friends, (8) self-help groups (9) free enterprise businesses such as health-food stores or gyms etc., (10) government workers, such as social-workers, counsellors or paid coordinators in government centers, (11) government publications, such as pamphlets, (12) homemakers, (13) their church, (14) the media, T.V., books, newspapers etc., (15) medical extended care benefits such as chiropractors, masseuses, pharmacists, physiotherapists etc., (16) the hospital dietician, (17) neighbours.

Group 2 seniors demonstrated a considerable interest in remaining independent because the most often quoted health resource was the individual him/herself.

The doctor was predictably uppermost in most of this age group's mind as a health prevention resource. To be noted also was that 66% of the resources named were people which the respondent knew. This included: (1) self, (2) doctor, (3) relatives, (5) Christine Ragneborg, senior coordinator at Matsqui-Abbotsford Community Services, (6) persons in the respondent's housing complex, (7) friends, (8) self-help groups (13) church, (17) neighbours. Conceivably the seniors know some of the individuals in the other resources also, but by and large the seniors tend to rely on "known person resources" rather than on books, agencies or strangers.

Those seniors who lived in community type housing seemed to benefit more than just economically, since many of their physical and mental health needs were reported to be taken care of in this type of housing context.

Recommendations

Prevention information could most easily be dispersed through the doctor, either verbally or with simple attractive literature, because the doctor is still in the front line for prevention in the view of the senior, even if doctors are presumed to concentrate much of their practice in diagnosis,

treatment and prescription. According to the findings, those who are not prevention oriented are much more ready to consult with their doctors than those who are prevention knowledgeable.

Community services and centers on the other hand who have access to the more prevention oriented and health conscious may find it possible to recruit volunteers (ex-nurses are used by their relatives quite often) who would provide healthy aging programs such as walking programs, health monitoring and information dispersal initiatives and other self-help enterprises.

Housing complex managements, co-operatives and church groups which are already a significant resource for many seniors could also recruit their more health sophisticated and motivated members to form the core groups who reach out to the more socially isolated in the community.

Some seniors (smokers) who do not participate in organizations and are also socially isolated from friends could be informed about resources with the telephone or through a "friendly visitors" program or by some other means than through church or formal organizations.

EXPERIMENTAL COMPONENTS OF THE PROJECT

Hypotheses Findings

Giving advice about health topics was not found to increase the possibility of participation in those areas related to that topic, nor did it increase self-esteem, health internality or life satisfaction.

In support of the literature and the validity of the measurement instruments, life satisfaction was found to correlate highly with self-esteem.

Health internality was not found to correlate markedly with self-esteem or speaking more during the interview. Health internality on the other hand was discovered to correlate positively and quite significantly with life satisfaction.

Loquacity during the interview/survey was noted to correlate positively with the self-esteem before the experience of giving advice in Group 1 and with participation in formal organizations in Group 2.

Recommendations about Research Design

If such a study were pursued again it would be important to establish that the respondents knew and understood the topic on which advice is to be given, sufficiently well (e.g. housing for seniors) to feel at ease with the topic.

It would also be desirable for any future research in this area to set up a design that had the possibility of expressing a greater difference between the two most important variables (advice-giving and information-giving). These two variables were next to each other as rungs on Arnstein's Ladder of Participation and did not prove to be very different on the empowerment dimension. In other words, Group 2 felt that its information-giving was just as useful as Group 1 felt that its advice-giving was and the feeling of usefulness is assumed to be connected to the empowerment principle in Arnstein's design.

To ensure a better caliber of sampling procedure it would be advisable in the future to ask the respondents from the control group if they would be interested in being interviewed (without actually making a commitment to interview them) so that all respondents from the three groups would be equally motivated to participate at the onset. In the actual study, the control group respondents were contacted and it was established that they indeed were available, but no interview was mentioned (except as with the other two groups, in the introductory letter). Thus the control group contained an unknown number of unmotivated respondents which may have affected this group's participation rates. Fortunately Group 3's participation was not an important component to the study as most of the comparisons were meant to be made between the interviewed groups 1 and 2.

Relationships Between the Key Variables

Two fairly mutually exclusive groups of variables cluster around the two constructs of sociability/participation and health internality.

It seems from the results that prevention orientation and sociability with friends and organizations are not related to self-esteem, life satisfaction or better health. The findings about social participation in formal organizations are aligned with the findings reviewed in the literature by Cutler (1987), (Cutler, 1973; Edwards & Klemmack, 1973; Lemon, Bengston & Peterson, 1972; Longino & Kart, 1982) that there is no relationship to membership in organizations and psychological well-being. In fact, as mentioned in Chapter 1, Blunt (1982) found in a study on participation and social stress and health, that although health was positively associated with learning, participation in formal social organizations had negative effects upon health.

As mentioned in Chapter 1, perhaps lack of internality may be connected with the experience of participating in organizations not being connected with higher self-esteem and life satisfaction. When one examines the cluster of relationships around participation in formal organization, contact with friends and contact with church activities, health internality does not figure as one of the related constructs. Could it be that those high participators tend to be more

externally oriented in more ways than just their health? The question would bear more research as Cicirelli (1987) mentioned in Chapter 1, who reviewed the literature on aging and locus of control (not health locus of control, but general locus of control, a construct formulated by Rotter) found that social participation was associated with internality of control.

Prevention orientation seems to be a construct cultivated in a social milieu which is not connected to health internality, but much more with association with others and a strong belief that chance does not control health.

Health internality on the other hand, or a feeling that the self is mainly responsible for health is quite related to more frequent contact with family members, life satisfaction and better health.

The difference between the two clusters of health internality and sociability seems to reside in the notion that those who no longer or have never had frequent contact with family members, seem to rely more on outside supports, but do not necessarily enjoy greater self-esteem, life satisfaction or better health along with this greater outside participation. It is also important not to leap to conclusions and assume that non-contact with family members necessarily means loss in terms of widowhood or distance. Loss of frequent contact may also mean that meaningful and rewarding contact is not possible with other

family members and thus the reliance on friends and outside contacts.

Recommendations

If these findings are accurate, it would seem vital to conserve positive family connections for as long as possible and to promote internality in order to foster better health, greater self-esteem and life satisfaction amongst seniors.

Indeed the findings seem to support the notions of Kuypers and Bengston and Bell cited in Chapter 1 who maintain that we must encourage and facilitate the development of internal control and self-determination of the elderly so as to enable them to develop greater self-confidence. Further research is essential to determine just how this empowerment can be best developed.

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APPENDIX 1: U.B.C. ETHICS COMMITTEE CERTIFICATE OF APPROVAL

APPENDIX 11: AGENCY LETTER OF INTRODUCTION OF RESEARCHER

MATSQUI, ABBOTSFORD COMMUNITY SERVICES
2420 MONTROSE ST.
ABBOTSFORD, B.C.
V2S 3S9

In order to provide better service and programs, Matsqui-Abbotsford Community Services is conducting a research study with its Seniors.

We have a Masters student in Social Work who will be conducting the research in co-operation with Community Services. Her name is Anne St. Onge and she will be interviewing Seniors, with their permission. The questions in the survey will assist in our knowledge about the needs of the Seniors in the area of prevention of illness and health needs.

Anne St. Onge will be calling you by telephone and asking you if you are open to an appointment for the interview. This meeting should take about an hour and a half and will only occur once.

You may choose to have the interview in your own home or any other place of your choice and you can let Anne know this when she speaks to you on the phone.

The answers on the questionnaires will be compiled. These answers added together should give us a sense of what the Seniors are concerned about.

The information on the questionnaires will be used strictly for the purposes of the study. Names will not be attached to the summaries and the raw data connected to personal identification will be destroyed after the study is completed. Your name has been randomly selected as a potential participant in the survey. You may elect not to participate if you wish. If you choose to participate, you can refuse to answer any specific question you wish. If you refuse any part of this project, this will have no bearing on any of the services you receive or will receive in the future by Community Services.

Thank you very kindly for you attention.

Yours truly,

Walter Paetkau
Executive Director

P.S. Any further information about the project can be fielded by the research student, Anne St. Onge, at the phone number: 853-8871 and if she is not home, leave your name and phone number on the answering machine and she will respond to any of your inquiries. Or phone Christina Ragneborg at 859-7681 for more information.

APPENDIX 111: MULTIDIMENSIONAL HEALTH LOCUS OF CONTROL SCALE - FIRST HALF

by Wallston, Wallston and DeVellis, 1978

CODE NUMBER:___ QUESTIONNAIRE A1: AGE:___ SEX: M___ F___

1

1	2	3	4	5	6
STRONGLY DISAGREE	MODERATELY DISAGREE	SLIGHTLY DISAGREE	SLIGHTY AGREE	MODERATELY AGREE	STRONGLY AGREE

___ 1. IF I GET SICK, IT IS MY OWN BEHAVIOR WHICH DETERMINES HOW SOON I GET WELL AGAIN.

___ 2. NO MATTER WHAT I DO, IF I AM GOING TO GET SICK, I WILL GET SICK.

___ 3. HAVING REGULAR CONTACT WITH MY PHYSICIAN IS THE BEST WAY FOR ME TO AVOID ILLNESS.

___ 4. MOST THINGS THAT AFFECT MY HEALTH HAPPEN TO ME BY ACCIDENT.

___ 5. WHENEVER I DON'T FEEL WELL. I SHOULD CONSULT A MEDICALLY TRAINED PROFESSIONAL.

___ 6. I AM IN CONTROL OF MY HEALTH.

___ 7. MY FAMILY HAS A LOT TO DO WITH MY BECOMING SICK OR STAYING HEALTHY.

___ 8. WHEN I GET SICK, I AM TO BLAME.

___ 9. LUCK PLAYS A BIG PART IN DETERMINING HOW SOON I WILL RECOVER FROM AN ILLNESS.

___ 10. HEALTH PROFESSIONALS CONTROL MY HEALTH.

___ 11. MY GOOD HEALTH IS LARGELY A MATTER OF GOOD FORTUNE.

___ 12. THE MAIN THING WHICH AFFECTS MY HEALTH IS WHAT I MYSELF DO.

___ 13. IF I TAKE CARE OF MYSELF, I CAN AVOID ILLNESS.

___ 14. WHEN I RECOVER FROM AN ILLNESS, IT'S USUALLY BECAUSE OTHER PEOPLE (FOR EXAMPLE, DOCTORS, NURSES, FAMILY, FRIENDS) HAVE BEEN TAKING GOOD CARE OF ME.

___ 15. NO MATTER WHAT I DO, I'M LIKELY TO GET SICK.

___ 16. IF IT'S MEANT TO BE, I WILL STAY HEALTHY.

___ 17. IF I TAKE THE RIGHT ACTIONS, I CAN STAY HEALTHY.

___ 18. REGARDING MY HEALTH, I CAN ONLY DO WHAT MY DOCTOR TELLS ME TO DO.

APPENDIX 1V: MULTIDIMENSIONAL HEALTH LOCUS OF CONTROL SCALE - SECOND HALF

by Wallston, Wallston and DeVellis, 1978

CODE NUMBER:___ QUESTIONNAIRE A2:

1	2	3	4	5	6
STRONGLY DISAGREE	MODERATELY DISAGREE	SLIGHTLY DISAGREE	SLIGHTLY AGREE	MODERATELY AGREE	STRONGLY AGREE

___ 1. IF I BECOME SICK, I HAVE THE POWER TO MAKE MYSELF WELL AGAIN.

___ 2. OFTEN I FEEL THAT NO MATTER WHAT I DO, IF I AM GOING TO GET SICK, I WILL GET SICK.

___ 3. IF I SEE AN EXCELLENT DOCTOR REGULARLY, I AM LESS LIKELY TO HAVE HEALTH PROBLEMS.

___ 4. IT SEEMS THAT MY HEALTH IS GREATLY INFLUENCED BY ACCIDENTAL HAPPENINGS.

___ 5. I CAN ONLY MAINTAIN MY HEALTH BY CONSULTING HEALTH PROFESSIONALS.

___ 6. I AM DIRECTLY RESPONSIBLE FOR MY HEALTH.

___ 7. OTHER PEOPLE PLAY A BIG PART IN WHETHER I STAY HEALTHY OR BECOME SICK.

___ 8. WHATEVER GOES WRONG WITH MY HEALTH IS MY OWN FAULT.

___ 9. WHEN I AM SICK, I JUST HAVE TO LET NATURE RUN ITS COURSE.

___ 10. HEALTH PROFESSIONALS KEEP ME HEALTHY.

___ 11. WHEN I STAY HEALTHY. I'M JUST PLAIN LUCKY.

___ 12. MY PHYSICAL WELL-BEING DEPENDS ON HOW WELL I TAKE CARE OF MYSELF.

___ 13. WHEN I FEEL ILL, I KNOW IT IS BECAUSE I HAVE NOT BEEN TAKING CARE OF MYSELF PROPERLY.

___ 14. THE TYPE OF CARE I RECEIVE FROM OTHER PEOPLE IS WHAT IS RESPONSIBLE FOR HOW WELL I RECOVER FROM AN ILLNESS.

___ 15. EVEN WHEN I TAKE CARE OF MYSELF, IT'S EASY TO GET SICK.

___ 16. WHEN I BECOME ILL, IT'S A MATTER OF FATE.

___ 17. I CAN PRETTY MUCH STAY HEALTHY BY TAKING GOOD CARE OF MYSELF.

___ 18. FOLLOWING DOCTOR'S ORDERS TO THE LETTER IS THE BEST WAY FOR ME TO STAY HEALTHY.

APPENDIX V: ROSENBERG'S SELF-ESTEEM SCALE

by Rosenberg (1965, cited in Mangen & Peterson, eds. 1982)

CODE NUMBER:_____ QUESTIONNAIRE B2:

BELOW ARE 10 STATEMENTS WITH WHICH YOU MAY AGREE OR DISAGREE.

USING THIS SCALE, GIVE YOUR LEVEL OF AGREEMENT WITH EACH ITEM, BY PLACING THE APPROPRIATE NUMBER ON THE LINE BEFORE THAT ITEM.

PLEASE BE OPEN AND HONEST IN YOUR RESPONDING.

1	2	3	4
STRONGLY DISAGREE	AGREE	DISAGREE	STRONGLY AGREE

___ 1. I FEEL THAT I'M A PERSON OF WORTH, AT LEAST ON AN EQUAL PLANE WITH OTHERS.

___ 2. I FEEL THAT I HAVE A NUMBER OF GOOD QUALITIES.

___ 3. ALL IN ALL, I AM INCLINED TO FEEL THAT I AM A FAILURE.

___ 4. I AM ABLE TO DO THINGS AS WELL AS MOST OTHER PEOPLE.

___ 5. I FEEL I DO NOT HAVE MUCH TO BE PROUD OF.

___ 6. I TAKE A POSITIVE ATTITUDE TOWARD MYSELF.

___ 7. ON THE WHOLE, I AM SATISFIED WITH MYSELF.

___ 8. I WISH I COULD HAVE MORE RESPECT FOR MYSELF.

___ 9. I CERTAINLY FEEL USELESS AT TIMES.

___ 10. AT TIMES I THINK I AM NO GOOD AT ALL.

(Rosenberg, taken from Mangen & Peterson, 1982).

APPENDIX V1: GROUP 1 ADVICE-ASKING QUESTIONNAIRE

CODE NUMBER: QUESTIONNAIRE #1:

I AM GOING TO ASK FOR YOUR OPINION AND FOR YOUR ADVICE ON COMMUNITY PROGRAMS ABOUT HEALTH, PREVENTION OF ILLNESS AND KEEPING WELL.

WE NEED THE ADVICE AND SUGGESTIONS OF SENIORS IN THIS AREA SO WE CAN KNOW WHAT TYPES OF PROGRAMMING TO ORGANIZE.

SUGGESTIONS ARE USEFUL FOR COMMUNITY WORKERS SO THAT THEY CAN IMPROVE EXISTING PROGRAMS AND THE BEST PERSONS TO GIVE ADVICE ABOUT THESE POSSIBLE IMPROVEMENTS ARE THE SENIORS THEMSELVES.

1. HEALTH AND PREVENTION OF ILLNESS: GENERAL PROGRAMS.

1.01 IF YOU HAD TOTAL CONTROL AND PROVINCIAL AND FEDERAL MONIES WERE AT YOUR DISPOSAL, WHAT WOULD YOU ADVISE IS NEEDED IN THE AREA OF PROGRAMS AND SERVICES FOR SENIORS SO THEY CAN REMAIN AS HEALTHY AS POSSIBLE?

.....
.....
.....

1.02 YOU HAVE TOTAL CONTROL AND GOVERNMENT MONEY IS AT YOUR DISPOSAL, WHAT WOULD YOU ADVISE IS NEEDED TO SEE THAT SENIORS REMAIN AS INDEPENDENT AS LONG AS POSSIBLE?

.....
.....
.....

1.03 YOU ARE IN CONTROL OF GOVERNMENT MONEY, WHAT WOULD YOU ADVISE SHOULD BE DONE TO MAKE SURE THAT SENIORS ARE THE ONES WHO HAVE A SAY ABOUT WHAT THESE PROGRAMS ARE?

.....
.....
.....

2. HEALTH AND PREVENTION OF ILLNESS: EXERCISE

2.01 AGAIN, YOU HAVE TOTAL CONTROL AND MONEY IS NO REAL PROBLEM, WHAT WOULD YOU LIKE TO SEE POSSIBLE IN TERMS OF EXERCISE AS PREVENTION OF ILLNESS FOR SENIORS?

.....
.....
.....

2.02 WHAT WOULD YOU ADVISE IS NEEDED TO ENSURE THAT SENIORS INCLUDE EXERCISE IN THEIR LIVES TO PROMOTE HEALTH AND PREVENT ILLNESS?

.....
.....
.....

2.03 WHAT WOULD YOU ADVISE IS NEEDED TO ENSURE THAT THE SENIORS GET TO HAVE AN EFFECTIVE SAY ABOUT GOOD EXERCISE PROGRAMS FOR SENIORS?

.....
.....
.....

3. HEALTH AND PREVENTION- NUTRITION:

3.01 WHAT WOULD YOU ADVISE IS NEEDED TO ENSURE THAT SENIORS GET HEALTHY NUTRITION THAT WILL KEEP THEM WELL?

.....
.....
.....

3.02 WHAT WOULD YOU ADVISE IS NEEDED SO THAT THE VIEWS OF SENIORS ARE CONSIDERED IN THE DECISION MAKING PART OF THESE PROGRAMS?

.....
.....
.....

4. HEALTH AND PREVENTION- SAFETY

4.01 WHAT WOULD YOU ADVISE SHOULD BE DONE TO MAKE CERTAIN THAT SENIORS ARE SAFE IN THEIR HOMES FROM FIRE HAZARDS?

.....
.....
.....

4.02 WHAT WOULD YOU ADVISE IS NEEDED TO SEE THAT SENIORS ARE SAFER IN THEIR HOME IN TERMS OF BEING ALONE AND HAVING FALLS?

.....
.....
.....

4.03 WHAT WOULD YOU ADVISE IS NEEDED TO ASSIST IN THE PROTECTION OF THE ELDERLY FROM CRIMINAL BEHAVIOR?

.....
.....
.....

5. HEALTH AND PREVENTION: NURTURING RELATIONSHIPS

5.01 WHAT WOULD YOU ADVISE IS NEEDED TO INCREASE THE POSSIBILITY THAT SENIORS GET THE NURTURING RELATIONSHIPS THEY WANT?

.....
.....
.....

5.02 WHAT WOULD YOU ADVISE IS NEEDED TO PREVENT LONELINESS AMONGST SENIORS?

.....
.....
.....

6.01 HAVE YOU HEARD OF THE CONCEPT OF "WELLNESS", "PREVENTION" AND WHERE HAVE YOU HEARD THE TOPIC? DOES IT MEAN ANYTHING TO YOU? FOR EXAMPLE, ON TELEVISION, BOOKS, WITH FRIENDS ETC.? HAVE YOU EVER SEEN OR BOUGHT THE "PREVENTION" MAGAZINE?

.....
.....
.....

APPENDIX V11: GROUP 2 INFORMATION-ASKING QUESTIONNAIRE

CODE NUMBER QUESTIONNAIRE #2:

I AM GOING TO ASK YOU ABOUT WHAT YOU KNOW ABOUT SOME COMMUNITY PROGRAMS WHICH ARE CURRENTLY AVAILABLE AND WHICH YOU MIGHT KNOW ABOUT. WE ALSO WISH TO KNOW WHO YOU TURN TO FOR INFORMATION.

WE NEED TO KNOW HOW WELL ACQUAINTED THE SENIORS ARE WITH SERVICES IN THIS AREA, SO THAT WE KNOW WHAT TYPES OF COVERAGE THESE PROGRAMS HAVE.

THE BEST PERSONS TO GIVE US INFORMATION ABOUT THIS ARE THE PEOPLE IN THE COMMUNITY.

1. <u>HEALTH AND PREVENTION- GENERAL PROGRAMS</u>:

1.01 WHO WOULD YOU CONTACT IF YOU HAD A HEALTH PROBLEM? (LIST IN PRIORITY).

.....
.....
.....

1.02 WHAT HEALTH AND MEDICAL PROGRAMS ARE AVAILABLE IN THE COMMUNITY WHICH YOU KNOW OF?

.....
.....
.....

1.03 WHO WOULD YOU ASK ABOUT PROGRAMS FROM IN THE COMMUNITY BESIDES A PROFESSIONAL? (FRIEND, RELATIVE, ACQUAINTANCE, NEIGHBOR?) LIST IN PRIORITY.

.....
.....
.....

1.04 IF SOMETHING HAPPENS TO YOUR HEALTH THAT LEAVES YOU WITH SOME DISABILITY, WHERE WOULD YOU TURN TO FOR SPECIAL PHYSICAL ASSISTANCE (NO FUNDING,) TO ENABLE YOU TO STAY IN THE HOME?

.....
.....
.....

2. HEALTH AND PREVENTION:EXERCISE

2.01 WHO WOULD YOU CONTACT IF YOU WISHED TO BEGIN AN EXERCISE PROGRAM TO IMPROVE YOUR HEALTH? (LIST IN PRIORITY)

.....
.....
.....

2.02 WHAT TYPES OF EXERCISE PROGRAMS ARE NOW AVAILABLE IN THE COMMUNITY THAT YOU ARE AWARE OF?

.....
.....
.....

2.03 WHO WOULD YOU ASK ABOUT EXERCISE OPPORTUNITIES IN THE COMMUNITY BESIDES A PROFESSIONAL? (A FRIEND, RELATIVE, ACQUAINTANCE, NEIGHBOR?) (LIST IN PRIORITY).

.....
.....
.....

3. HEALTH AND PREVENTION-NUTRITION

3.01 WHO WOULD YOU CONTACT IF YOU HAD QUESTIONS ABOUT HEALTHY NUTRITION? (LIST IN PRIORITY).

.....
.....
.....

3.02 WHAT HEALTH AND PREVENTION PROGRAMS FOR HEALTHY NUTRITION ARE AVAILABLE IN THE COMMUNITY WHICH YOU KNOW OF? (LIST IN PRIORITY).

.....
.....
.....

3.03 WHO WOULD YOU ASK ABOUT HEALTHY NUTRITION FROM OR PROGRAMS ABOUT NUTRITION BESIDES A PROFESSIONAL? (FRIEND, RELATIVE, ACQUAINTANCE, NEIGHBOR?). (LIST IN PRIORITY).

.....
.....
.....

4. HEALTH AND PREVENTION- SAFETY

4.01 WHO WOULD YOU CONTACT IF YOU HAD A CONCERN ABOUT SAFETY IN THE HOME FROM FIRE HAZARDS?

.....
.....
.....

4.02 WHAT SERVICES DO YOU KNOW OF THAT ARE AVAILABLE IN THE COMMUNITY WHICH DEAL WITH FIRE HAZARDS?

.....
.....
.....

4.03 WHO WOULD YOU CONTACT IF YOU HAD A CONCERN ABOUT SAFETY IN THE HOME FROM THE DANGERS OF FALLS OR BEING ALONE DURING A FALL?

.....
.....
.....

4.04 WHO WOULD YOU CONTACT IF YOU HAD A CONCERN ABOUT ALL ROUND SAFETY IN THE STREET AND HOME FROM THE TYPES OF INCIDENTS WHICH YOU MIGHT FIND OF CONCERN? THIS INCLUDES CRIMINAL ACTIVITIES?

.....
.....
.....

4.05 WHO WOULD YOU ASK ABOUT SAFETY FROM ACCIDENTS OR CRMINAL ACTIVITY CONCERNS FROM IN THE COMMUNITY THAT IS NOT A PROFESSIONAL? (FRIEND, RELATIVE, ACQUAINTANCE, NEIGHBOR) (LIST IN PRIORITY).

.....
.....
.....

5. HEALTH AND PREVENTION: NURTURING RELATIONSHIPS

5.01 WHO WOULD YOU CONTACT IF YOU WERE LONELY OR IF YOU FELT THAT YOUR RELATIONSHIPS WERE NOT SATISFACTORY?

.....
.....
.....

5.02 WHAT RESOURCES AND PROGRAMS ARE AVAILABLE IN THE COMMUNITY FOR PERSONS WHO ARE LONELY OR WHO HAVE HURTFUL RELATIONSHIPS?

.....
.....
.....

6.01 "HAVE YOU HEARD OF THE CONCEPT OF "WELLNESS", "PREVENTION" AND WHERE HAVE YOU HEARD THE TOPIC? DOES IT MEAN ANYTHING TO YOU? FOR EXAMPLE, ON TELEVISON, BOOKS, WITH FRIENDS ETC. HAVE YOU EVER SEEN OR BOUGHT THE "PREVENTION" MAGAZINE?

.....
.....
.....

APPENDIX V111: SATISFACTION WITH LIFE SCALE

by Ed Diener, Robert A. Emmons,
Randy J. Larsen and Sharon Griffeth (1985)

CODE NUMBER:_____

QUESTIONNAIRE C:

BELOW ARE FIVE STATEMENTS WITH WHICH YOU MAY AGREE OR DISAGREE.

USING THIS SCALE GIVE YOUR LEVEL OF AGREEMENT WITH EACH ITEM BY PLACING THE APPROPRIATE NUMBER ON THE LINE BEFORE THAT ITEM.

PLEASE BE OPEN AND HONEST IN YOUR RESPONDING.

1	2	3	4	5	6	7
STRONGLY DISAGREE	DISAGREE	SLIGHTLY DISAGREE	NEITHER AGREE NOR DISAGREE	SLIGHTLY AGREE	AGREE	STRONGLY AGREE

___ 1. IN MOST WAYS MY LIFE IS CLOSE TO MY IDEAL.

___ 2. THE CONDITIONS OF MY LIFE ARE EXCELLENT.

___ 3. I AM SATISFIED WITH MY LIFE.

___ 4. SO FAR i HAVE GOTTEN THE IMPORTANT THINGS I WANT IN LIFE.

___ 5. IF I COULD LIVE MY LIFE OVER, I WOULD CHANGE ALMOST NOTHING.

(taken from Corcoran, K., & Fischer J., 1987).

APPENDIX 1X: ORGANIZATION PARTICIPATION QUESTIONNAIRE

based on F. S. Chapin's (1939) "Social Participation Scale" (as cited in Miller, 1983)

CODE NUMBER:_____

ORGANIZATION QUESTIONNAIRE:

AN ORGANIZATION MEANS SOME ACTIVE OR ORGANIZED GROUPING, USUALLY, BUT NOT NECSSARILY IN THE COMMUNITY OR NEIGHBORHOOD OF RESIDENCE, SUCH AS CLUB, LODGE, BUSINESS OR POLITICAL OR PROFESSIONAL OR RELIGIOUS ORGANIZATION, LABOUR UNION, ETC. SUBGROUPS OF A CHURCH OR OTHER INSTITUTION ARE TO BE INCLUDED SEPARATELY PROVIDED THEY ARE ORGANIZED AS MORE OR LESS INDEPENDENT ENTITIES.

ATTENDANCE OR NON-ATTENDANCE WITHOUT REGARD TO THE NUMBER OF MEETINGS ATTENDED, WITHIN THE LAST YEAR.

RECORD UNDER CONTRIBUTIONS, YES OR NO, BUT NO AMOUNT.

PREVIOUS MEMBERSHIPS, COMMITTEE WORK, OFFICES HELD ETC. SHOULD NOT BE COUNTED OR RECORDED OR USED.

NAME OF ORG.	YES/NO ATTENDANCE	YES/NO CONTRIBUTION	YES/NO COMMITTEE	YES/NO OFFICE
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

(based on Chapin's "Social Participation Scale")

APPENDIX X: DEMOGRAPHICS QUESTIONNAIRE

CODE NUMBER:

AMOUNT OF CONTACT I HAVE WITH INTIMATE SUPPORTIVE FAMILY IN AREA:

1----2----3----4----5----6----7----8----9----10
Not Fair Excellent
at
all

AMOUNT OF CONTACT I HAVE WITH INTIMATE SUPPORTIVE FRIENDS:

1---2----3----4----5----6----7----8----9----10
Not Fair Excellent
at
All

STATE OF HEALTH:

1 = Poor 2 = Fair 3 = Good 4 = Excellent

STATE OF HEALTH OF SPOUSE:

1 = Poor 2 = Fair 3 = Good 4 = Excellent

ETHNIC GROUP:

AMOUNT OF TIME LIVED IN THE AREA:

On a scale of 1 to 10 how do you feel after this survey?

"I feel that I have been *useful* and been able to contribute in this survey".

1----2----3----4----5----6----7----8----9----10
Not Fair Excellent
Useful
At
All

"I have felt *comfortable* with the nature of this survey overall".

1----2----3----4----5----6----7----8----9----10
Not Fair Excellent
at
all

TYPE OF HOUSING:

SMOKING:

APPENDIX X1: RESPONDENT'S CONSENT FORM

APPENDIX X11: LETTER # 1 - INVITATION TO PARTICIPATE # 1

MATSQUI, ABBOTSFORD COMMUNITY SERVICES

2420 MONTROSE ST.
ABBOTSFORD, B.C.
V2S 3S9

Dear _____

We will have available several free well written and illustrated books on the topic of "Choosing Wellness: An Approach to Healthy Aging".

The "Choosing Wellness" book has chapters for seniors on health, making choices, nutrition, companionship, keeping the body in tune and the concept of "Wellness".

This book was written by the Ministry of Health and is popular so it is being reprinted again for redistribution.

If you wish to have one ordered for you please fill in the request at the bottom of the page and mail it to the:

"Health Awareness Senior Project"
c/o Senior Services
Matsqui-Abbotsford Community Services
2420 Montrose Street
Abbotsford, B.C. V2S 3S9

Your name will be added to the list of persons who have requested it and you will be phoned to pick up the book when the shipment of books has arrived.

I am requesting a copy of the book on "Choosing Wellness": An Approach to Healthy Aging".

Please order a copy of this book for me and call me at _____ (phone #) when my book has arrived.

Signed: _____
(sign your name here)

APPENDIX X111: LETTER # 2 - INVITATION TO PARTICIPATE # 2

MATSQUI, ABBOTSFORD
COMMUNITY SERVICES

2420 MONTROSE ST.
ABBOTSFORD, B.C.
V2S 3S9

Dear_____

Several members of the community, made up of seniors and persons who work with seniors, are forming a group for increasing health awareness to seniors which is (until we find a better name), called "Advisory Council on Healthy Aging".

We need more ideas and input from members of the senior community and are inviting you to become involved.

If you are interested in attending our meetings and being on our mailing list please fill in the bottom of this page and mail it to the following address:

"Health Awareness Senior Project"
c/o Senior Services
Matsqui-Abbotsford Community Services
2420 Montrose Street
Abbotsford, B.C. V2S 3S9

I would like to be placed on the mailing list for the group, "Advisory Council on Healthy Aging" and notified of the meetings.

I may not be able to attend all the meetings but I would like to be kept posted about what is happening on this topic.

Please send any notice of the meetings to me at:
(please sign your name and give your address and phone number).

_____ _____
(sign here) (phone number)

Address: _____
_____
_____
_____

APPENDIX X1V: LETTER # 3 - INVITATION TO PARTICIPATE # 3

APPENDIX XV: CORRELATION MATRIX OF PARTICIPATION, HEALTH AND OTHER INDICATORS CORRESPONDING TO TABLES 25, 26, 27, 28, 29, 30, 31, 32.

Correlation Matrix of Participation, Health and Other Indicators Corresponding to Tables 25, 26, 27, 28, 29, 30, 31, 32.

Variables

	1	2	3	4	5	6	7	8
1	X	.711**	.415**	.378**	-0.361**	.350**	-0.316**	.265*
2		X	.435**	.447**	-0.364**	.261*	-0.269*	ns
3			X	.335**	-0.267*	ns	ns	ns
4				X	-0.340**	ns	ns	ns
5					X	ns	ns	ns
6						X	ns	ns
7							X	ns
8								X

Variables

	9	10	11	12	13	14	15	16
1	.262*	.249*	ns	ns	.503**	ns	ns	ns
2	.252*	ns	ns	ns	.391**	.298**	-0.286**	.228*
3	ns	ns	ns	ns	ns	.356**	ns	.356**
4	.324**	.229*	.320**	.324**	ns	ns	ns	.231*
5	ns	ns	-0.251*	ns	ns	ns	ns	-0.264*
6	ns	ns	ns	ns	ns	ns	ns	ns
7	-0.385**	ns	ns	.507**	-0.222*	ns	ns	ns
8	ns	.262*	ns	ns	.315**	ns	ns	ns
9	X	ns	ns	-0.502**	.235*	ns	ns	ns
10		X	ns	ns	ns	ns	ns	ns
11			X	.248*	ns	ns	ns	ns
12				X	ns	ns	ns	ns
13					X	ns	ns	ns
14						X	-0.489**	ns
15							X	ns
16								X
17	ns	.555**	ns	ns	ns	ns	ns	ns
18	ns	ns	ns	ns	ns	ns	ns	ns
19	ns	.322**	.238*	ns	ns	ns	ns	ns
20	ns	ns	ns	ns	ns	ns	ns	-0.299**
21	ns	.216*	.266*	ns	ns	ns	ns	ns
22	ns	ns	ns	ns	ns	ns	ns	ns

Variables

	1	2	3	4	5	6	7	8
17	ns	ns	ns	.370**	ns	ns	ns	ns
18	ns	-0.237*	-0.405**	-0,280*	ns	ns	ns	ns
19	ns	ns	ns	ns	ns	ns	ns	ns
20	ns	ns	ns	ns	ns	ns	ns	ns
21	ns	ns	ns	ns	ns	ns	ns	ns
22	ns	.243*	ns	ns	ns	.273**	ns	ns

*-Significant at the .05 level. **-Significant at the .01 level.
ns-Not significant. N = 80

Code for Variable Numbers.

1 Participation in formal organizations.
Positive for increased participation, 0 for none.

2 Church or church activity attendence.
Positive for more attendence, 0 for none.

3 Knowledge of prevention concept. Yes = 1, No = 0.

4 Positive for increased contact with friends.

5 Smoking, yes = 1, no = 0. Smoking has a positive value here.

6 Living in a senior complex = 1. Detached housing = 2.

7 Coupled for the interview = 1. Single during interview = 0.

8 Positive for increased participation after interview.

9 Gender, positive for femaleness. Women = 2. Men = 1.

10 Reported feeling of being useful during interview. Positive for increased feeling of usefulness during interview.

11 Positive for increased contact with family.

12 Married status = 2. Single = 1.

13 Positive for increased volunteering in the community.

14 German in ethnic origin = 1. Non-German = 0.

15 British in ethnic origin = 1. Non-British = 0.

16 Age, positive for increased age.

17 Positive with increased reported comfort in the survey.

18 Belief that luck does not control health.
High score for belief that luck controls health and lower score for belief that luck has nothing to do with health.

19 Positive for better health.

20 Health internality. The more the person believes he/she is the one who controls his/her health, the higher the score.

21 Positive for increased life satisfaction.

22 Positive for increased self-esteem.