

**PREDICTORS OF LIFE SATISFACTION AMONG OLDER ADULTS
LIVING IN THE COMMUNITY**

**A THESIS SUBMITTED
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
MASTER OF SCIENCE**

(c) Copyright by Fernanda Fresco 1990

**DEPARTMENT OF PSYCHOLOGY
SAINT MARY'S UNIVERSITY**

**BY
FERNANDA FRESCO**

HALIFAX, NOVA SCOTIA

1990



NOTICE

The quality of this microform is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

Reproduction in full or in part of this microform is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30, and subsequent amendments.

AVIS

La qualité de cette microforme dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de qualité inférieure.

La reproduction, même partielle, de cette microforme est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30, et ses amendements subséquents.

ISBN 0-315-60432-8

PREDICTORS OF LIFE SATISFACTION AMONG OLDER ADULTS

LIVING IN THE COMMUNITY

A THESIS SUBMITTED

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

MASTER OF SCIENCE

DEPARTMENT OF PSYCHOLOGY

SAINT MARY'S UNIVERSITY

BY

FERNANDA FRESCO

HALIFAX, NOVA SCOTIA

1990

Approved: _____

J. Chadwick-Jones
Thesis Advisor

Approved: _____

B. Vulcano
Thesis Committee
Member

Approved: _____

B. Keddy
Thesis Committee
Member

Date: _____

April 3, 1990

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS.ii
ABSTRACT.	iv
LIST OF TABLES.vi
TEXT	
INTRODUCTION.1
METHOD.	108
RESULTS.	161
DISCUSSION.	247
REFERENCES.	337
APPENDICES	
A. SAMPLE SIZE REQUIRED FOR STUDY.	358
B. INTERVIEW SURVEY SCHEDULE.	361
C. POISSON DISTRIBUTION.	376
D. MULTIPLE REGRESSION ANALYSIS.	378
E. MULTIPLE REGRESSION ANALYSIS.	379
F. CORRELATION OF VARIABLES.	381
G. ONE-WAY ANALYSIS OF VARIANCE.	382
H. ONE-WAY ANALYSIS OF VARIANCE.	383

ACKNOWLEDGEMENTS

I have been bestowed with the kind consideration of several talented individuals during this entire research project. The completion of this manuscript is a testament of their efforts and accomplished through the spirit of sharing. I want to gratefully thank Dr. John Chadwick-Jones for his astute guidance, continuous support, and kind words. There were times when I was discouraged, but Dr. Chadwick-Jones had a very special gift for making me believe in myself despite some trying circumstances. I would like to acknowledge Dr. Brent Vulcano for his unending patience, expert advice, and generous support. He was instrumental in helping me cope with graduate life and made me smile many a time. I am indebted and grateful to Dr. Grace Pretty for her endearing support and helpful suggestions. Her guidance was most helpful and provided me with spiritual strength. I also wish to acknowledge the continuous support and personal interest of Dr. Barbara Keddy. She helped me to appreciate the delightful wisdom and adventure of the elderly. Various organizations have provided me with their assistance, many too numerous to document. However, I wish to thank the assistance of staff at the Spencer House in Halifax and at the Senior Citizen's Information Centre in Dartmouth.

I am indeed grateful and indebted to all of the beautiful and very special individuals who voluntarily shared their experiences and memories with me. Their creativity and inner peacefulness made me realize how privileged I was to walk down memory lane with them...I shall always remember the joy, unconditional love and acceptance bestowed to me by these kind people.

How could I ever repay my loving family and endearing friends for their constant love and support? I shall always be indebted to them for this and so much more. The dedication of this manuscript to my parents is but a small token of my appreciation. They have shown me the beauty and vitality of living each day to the fullest, of making each day a masterpiece. And finally, a very special thank you to my husband Leo, for his wonderful support and devotion throughout the project. His enduring strength and commitment continually inspired me and allowed me to accomplish my goal. I feel blessed.

ABSTRACT

The purpose of the study was to investigate the linear relationship of eight predictor variables and the self-reports ratings of current and global life satisfaction among older men and women living in a community. The predictor variables employed were: (1) level of activity (leisure, intimate and religious); (2) social interactions (informal and formal networks) ; (3) social roles; (4) personal major life events (work, family and leisure); (5) socioeconomic factors (level of education, monthly income, occupation, adequacy of income, and economic activity); (6) perceived physical health status; (7) gender; and (8) chronological age. Two main questions were addressed in the study: (1) In general, what relationships exist between the eight chosen variables and life satisfaction, and (2) what is the relative contribution of the eight variables in reported life satisfaction? The participants in the study were a convenience sample of 60 men and 60 women, residing in Halifax and Dartmouth, in three age groups: young-old (60 - 69), middle-old (70 -79), and old-old (old + years). Data was collected utilizing a cross-sectional face-to-face semi-structured interview design and featured the use of 26 open-ended questions to aid in the interpretation of the study findings. Measures used in the study were the: (1) Life Satisfaction Index - A (LSI-A), (2) Activity Inventory,

(3) Social Lifespace Measure, and (4) Role Count Index. The data was analyzed using descriptive, correlational, and multivariate techniques, in addition to being thematically analyzed. The major findings of the study demonstrate that life satisfaction is related to particular types of activities (global, intimate and leisure), informal and formal social interactions, number of social roles, satisfying family and leisure life events, functional and adequacy of physical health. However, religious activity, work life events, gender, chronological age and all of the socioeconomic factors are not found to be significantly associated with life satisfaction. Adequacy of health was shown to be the predominant correlate of life satisfaction. Simultaneous multiple regression analysis using four variables (perceived adequacy of health, number of satisfying family events recalled, intimate and leisure activity) explained almost 30 percent of variance in self- assessment of life satisfaction among older adults. These findings are congruent with evidence in the literature indicating that good health and involvement in social activities are principal contributors to life satisfaction in later life.

LIST OF TABLES

Table	Page
1. Description of Demographic Characteristics of Respondents	110
2. Description Of Health Characteristics and Physical Conditions of Respondents	114
3. T-Test for Life Satisfaction Scores of Respondents Residing in Two Cities	162
4. T-Test for Life Satisfaction Scores of Respondents Interviewed in Two Settings	163
5. Descriptive Information for Study Scales	165
6. Intercorrelations of Variables In Activity Predictor Set with Life Satisfaction	171
7. Multiple Regression Analysis: Partial R-Squared Values, Increments in R-Squared Values, Correlation Coefficients, Beta Weights, and F-Values of Activity Level for Life Satisfaction Criterion	174
8. Analysis of Variance Table for Multiple Regression of Activity Level Predictor Set	175
9. Intercorrelations of Variables in Social Interactions /	

Social Roles with Life Satisfaction	180
10. Intercorrelations of Variables in Personal Major Life Events Predictor Set with Life Satisfaction	184
11. Intercorrelations of Variables in Socioeconomic Predictor Set with Life Satisfaction	190
12. Intercorrelations of Variables in Health Predictor Set with Life Satisfaction	194
13. Multiple Regression Analysis: Partial R-Squared Values, Increments in R-Squared Values, Correlation Coefficients, Beta Weights, and F-Values of the 4 Best Predictor Variables for Life Satisfaction	197
14. Analysis of Variance Table for Final Multiple Regression Model of Life Satisfaction with 4 Variables	199
15. Multiple Regression Analysis: Partial R-Squared Values, Increments in R-Squared Values, Correlation Coefficients, Beta Weights, and F-Values of the 6 Best Predictor Variables for Life Satisfaction	200
16. Analysis of Variance Table for Final Multiple Regression Model of Life Satisfaction with 6 Variables	202

17. R-Squared Values for Sets of Variables in Predicting Life Satisfaction	203
18. Correlations Between Study Variables and Life Satisfaction	205
19. Answers to the question, "How would you define life satisfaction?"	220
20. Answers to the question, "Could you tell me about the events/situations that make you satisfied at this time in your life?"	221
21. Answers to the question, "Could you tell me about those times that are less satisfying to you at this time in your life?"	222
22-A. Answers to the question, "Could you be more satisfied with your life at the present time? Explain." "YES"	223
22-B. Answers to the question, "Could you be more satisfied with your life at the present time? Explain." "NO"	224
23. Answers to the question, "What do you think was the most satisfying aspect(s) of your life 10 years ago?"	225
24. Answers to the question, "What do you think was the least satisfying aspect(s) of your life 10 years ago?"	226

25. Answers to the question, "What do you think might be the most satisfying aspect(s) of your life 10 years from now?"	227
26. Answers to the question, "What do you think might be the least satisfying aspect(s) of your life 10 years from now?"	238
27. Answers to the question, "Of all the activities that you are presently involved in, which do you derive the most satisfaction from?"	229
28. Answers to the question, "Of all the activities that you are presently involved in, which do you derive the least satisfaction from?"	230
29. Answers to the question, "Of all the relationships that you have shared with others, which are the most meaningful to you at this time in your life?"	231
30. Answers to the question, "Of all the relationships that you have shared with others, which do you derive the least satisfaction from at this time in your life?"	232
31. Answers to the question, "Of all the relationships that you shared with others, in the past, which were the most meaningful to you?"	233

32. Answers to the question, "Of all the relationships that you shared with others, in the past, which did you derive the least satisfaction from?"	234
33. Answers to the question, "Could you please state for me the most satisfying work events in your life?"	235
34. Answers to the question, "Could you please state for me the least satisfying work events in your life?"	236
35. Answers to the question, "Could you please state for me the most satisfying family events in your life?"	237
36. Answers to the question, "Could you please state for me the least satisfying family events in your life?"	238
37. Answers to the question, "Could you please state for me the most satisfying leisure events in your life?"	239
38. Answers to the question, "Could you please state for me the least satisfying leisure events in your life?"	240
39. Answers to the question, "What, if anything, do you miss about your workplace?"	241
40. Answers to the question, "What, if anything, do you miss about your family life?"	242

41. Answers to the question, "What, if anything, do you miss about your leisure life?" 243
- 42 A-B. Answers to the question, "Do you think that your income is adequate in meeting all your needs?" "YES" ? "NO" 244
- 43 A-B. Answers to the question, "Do you think that your health enables you to do what it is that satisfies you? Explain." "YES" / "NO" 245
44. Answers to the question, "What is your philosophy of life?" 246

Predictors of Life Satisfaction Among Older Adults

Living in the Community

For the past 45 years the dominant focus of the social psychology of aging has been the adjustment process and coping styles of older individuals as they confront novel social, psychological, and physiological changes (Havighurst, 1968). Gerontologists and social scientists have examined a plethora of factors that could potentially influence an older adult's life satisfaction and patterns of adjustment to aging (Mancini, Quinn, Gavagan, & Franklin, 1980).

To the extent that the life satisfaction approach seeks to explain why people with differing lifestyles and values can all successfully adapt to aging (Palmore & Jeffers, 1971), this enquiry will examine the influence of a broad range of individual and lifestyle variables on life satisfaction. Two questions will be addressed: (1) In general, what relationships exist between eight chosen variables and life satisfaction, and (2) what is the relative contribution of the eight predictor variables in reported life satisfaction among older adults living in the community? In considering these theoretical research questions, the predictor variables are:

(1) level of activity (leisure, intimate and religious); (2) social interaction (informal and formal); (3) social roles; (4) personal major life events; (5) perceived physical health status; (6) socioeconomic factors; (7) gender; and (8) chronological age.

The main focus of this study will be to assess the ability of these eight variables to predict life satisfaction among the older adults living in the community.

Background

According to Horley (1984), the first conceptual and empirical works on subjective well-being indicators were conducted in the 1930's. However, it was not until the mid-1940's that a formative period of development emerged. Veroff and Kulka (1981) concede that the establishment and recommendations of the United States Joint Commission on Mental Illness and Health in the 1950's was the main impetus for the proliferation of extensive studies in this area.

Since this period, thousands of research projects have been published on the topic of aging. Indeed, the last fifteen years have evidenced an influx of literature that has overridden the efforts of pioneering researchers. However, we are far from understanding the intricate nature of aging, albeit successful aging. Life satisfaction is a complex variable and this fact does not simplify the endeavors of describing, defining and measuring the construct (Roadburg, 1985).

Before undertaking how various variables are related to life satisfaction, preliminary comments about the theories, definition and measurement of life satisfaction are in order.

Theoretical Perspectives of Subjective Well-Being

Several major theoretical perspectives have addressed the issue of successful adjustment and life satisfaction in later life. Ryff (1982) reviews the four approaches to successful aging that were proposed in the Kansas City Studies of Later Life (Neugarten, Havighurst, & Tobin, 1961). The first pertained to the amount of activity in which the individual was engaged ; the second was related to the ability of the individual to disengage from various roles and activities; the third concerned studying the satisfaction with life; and the fourth was most interested in the maturity or integration of the personality. Of these various formulations, life satisfaction became the most popular dimension of successful aging (Ryff, 1982). These will be briefly presented and followed by two other current perspectives.

The activity approach (Havighurst & Albrecht, 1953) posits that successful aging is maintained by activity patterns and attitudes held during the middle-age years. When circumstances alter the general life patterns, an individual should find substitute activities to avoid a truncated life space (Atchley, 1980). This theory will be elaborated on in the section, "life satisfaction and level of activity".

Diametrically opposed, the disengagement approach (Cumming & Henry, 1961) to successful aging claims that an individual gradually disengages from a myriad of roles and positions commonly held in earlier life. This new developmental stage

thus provides an avenue for which the person is able to withdraw from various responsibilities by his or her own volition. Society at large and its norms are thought to be a conducive environment for activity reduction in later life to occur (Atchley, 1980). As well, an elaboration of this theory will be presented in the preceding section.

The life satisfaction approach suggests that individuals age successfully if they are content and feel satisfied about their past and present life (Atchley, 1980). Success is determined more by subjective and experientially-derived definitions, than by external standards of adjustment. Life satisfaction, in this perspective, is defined as the degree to which an individual is content with his or her current life situation. The present investigation will employ this definition to the criterion variable.

Medley (1976) suggests that older adults are more apt to adjust to several different kinds of circumstances, provided that they have the following: (1) a sense of accomplishment, (2) a moderate degree of independence, (3) satisfaction in interpersonal relationships, (4) involvement in some kinds of activity that are meaningful, and (5) a proclivity or willingness to change. The notion is that older people who are content with their lives are those whose activities are purposeful and provide them with feelings of self-worth. In addition, the individual with a flexible nature is able to adapt to different situations, and this enables one to "weather the storms of

life" more efficiently.

A more current perspective of life satisfaction attempts not only to explain the phenomenon, but to predict subjective well-being. A causal model of life satisfaction in the elderly has been proposed and tested by Markides and Martin (1979). Their model uses education, monthly income and self-reported health status as exogenous variables, activity level as an intervening variable, and life satisfaction as the predicted variable. The investigators espouse the view that, "health, income and education are the critical forces which enable individuals to engage in high levels of activity which in turn, influence positively one's level of life satisfaction," (p. 88). Concerning both sexes, activity and self-rated health were found to be highly predictive of life satisfaction. Markides and Martin (1979) also found that for men, income had the largest indirect effect, although the indirect effects of health and education were also substantial. However, this effect was not found to be as strong for women.

There are very few causal models of subjective well-being that are proposed. However these are slowly gaining ground with the advent of sophisticated statistical procedures, such as multivariate analyses. The ultimate goal of behavioural science is to predict behaviour and researchers are being encouraged to develop models that will be most expedient to the cause.

For the most part, social gerontologists have examined the aging process by investigating the specification of factors that are significantly related to successful aging (Leonard, 1981-82). Social scientists have been interested in delineating personal adjustment and successful aging by measuring these against some ideal standard (Roadburg, 1985).

Many investigators (Marshall, 1980; McPherson, 1983; Roadburg, 1985; Ward, 1979) contend that it may be more fruitful to "... let aging individuals define what satisfaction means for themselves, in terms of their own needs, desires , interests, and past patterns. In effect, the standard has become: if it works it is successful," (Ward, 1979, p. 138). This view is posited by the interactionist theory of later life.

According to the symbolic interactionist theory of later life, behaviour is a result of a continuous two-way interaction between the individual and the particular social situation (McPherson, 1983). This approach takes into account "the objective circumstances surrounding the retired person, their perception of themselves and circumstances, and the socialization history of each individual, " (Russell, 1985, p. 5). This perspective is not a novel way of examining human behaviour. However, the "phenomenology of aging" approach (Ward, 1979) is fast becoming one of the more popular ways by which to examine life satisfaction. In part this is due to its eclectic nature and its unobtrusive approach; it does so by taking into consideration

the various meanings that individuals ascribe to life situations. "But while this approach removes the biases of the investigator and lends an air of value-free science to the measurement of successful aging, it is itself not entirely satisfying," (Ward, 1979, p. 138). The information disclosed by individuals is very difficult to verify and this alone compounds the investigators' efforts to systematically study well-being.

As can be evidenced, all of the perspectives that have been presented attempt to explain for and at times, predict successful adaptation as the expected outcome. Indeed longitudinal studies of various natures illustrate to us that there are multiple pathways to this common outcome (Maddox & Willey, 1976). It might well be that there is a kernel of truth in each of the perspectives presented. But none of these, at the present time, is comprehensive or exhaustive in explaining for life satisfaction in older adults.

The present investigator firmly believes that perceptions and attitudes that individuals have amassed throughout their lives should be a dominant focus of aging research. Hence, the author supports the symbolic interactionist theory of later life. With this stance, the study will include both quantitative and qualitative aspects of psychological well-being.

Definition of Life Satisfaction

Various attempts have been made to rigorously define and measure the subject-

tive well-being of older adults. The point of interest has been to operationally define "successful" aging (Neugarten et al., 1961). However, the difficulty of trying to assess individual well-being has resulted in a variety of concepts, definitions, and measurements; "...most of which are related semantically but some of which are culturally or subculturally biased," (Adams, 1971, p. 64). Life satisfaction has been referred in the literature as "adjustment", "morale", "happiness", "enjoyment", "quality of life", and as various kinds of well-being: "psychological", "subjective", and "perceived," (Roadburg, 1985).

Horley (1984) documents that the constructs of life satisfaction, happiness, and morale are three indicators of subjective well-being with which contemporary psychosocial gerontologists have been concerned. Thus, it remains essential to demonstrate the problematic nature of utilizing a myriad of indicators for the umbrella topic of subjective well-being.

To illustrate this dilemma in the literature, Horley (1984) raises the interesting question:

When dealing with the concepts of life satisfaction, happiness and morale, are we considering three different ways of defining a single construct, or are we dealing with three distinct constructs related to a higher order construct? (p. 125).

Many researchers maintain that each construct of subjective well-being measures a unique and diverse aspect of well-being. The investigators contend that the characteristics of "life satisfaction", "happiness", and "morale" are so distinct that there is very little conceptual overlap among these constructs (Lohmann, 1980).

To illustrate this point, Stones and Kozma (1980) have primarily concerned themselves with providing conceptual definitions of these three constructs. Life satisfaction is defined as, "gratification of an appropriate proportion of the major desires of life," happiness as "an activity or state in the sphere of feelings," and morale as "moral condition with regards to discipline and confidence," (p. 270). In essence, these conceptual definitions are related but are not identical in nature.

However there are other researchers who contend that many of these constructs are related and similar to each other, in that they share a common underlying construct (George, 1981; Horley, 1984; Lohmann, 1977; Lohmann, 1980). In 1977, Lohmann examined the construct validity of "life satisfaction," "morale" and "adjustment". She found that the nominal, or dictionary-type, definition of these concepts were quite similar and hardly warranted the view that they reflected "distinct entities" of happiness. Horley (1984) supports this view with both semantic and empirical analyses. He concludes by denouncing to confound well-being and its various

indicators and chooses to broadly define subjective well-being as "self-perceived positive feeling of state," (p. 125).

Considering the two opposing viewpoints presented, there is a need for conceptual clarity and consistency because of the usage variance (George, 1981). Paradoxically, how do we go about defining a concept which is so subjective in nature? The task is not an easy one to attend to. It might very well be that there is no solution to this dilemma. Cutler (1979) captures the root of the problem when he writes:

To assume that there is a single or unitary concept called life satisfaction or subjective well-being, and that this concept can be simply used to index life course changes, is to assume something which does not exist. (p. 578)

Life Satisfaction: Stable versus Temporal Trait

Differences also exist between definitions of life satisfaction as a stable trait or as a temporal characteristic. The traditional viewpoint has been that happiness, morale and life satisfaction represent a relatively stable individual trait. The premise is that the individual, once happy, continues to be content with life. It assumes that the past and present life of the person influences his or her propensity to be satisfied in the future. George (1981) and Larson, Zuzanek and Manneil (1984) present disparate views from the more conventional standpoint.

George (1981) intimates that well-being evaluations are a daily phenomenon and, according to Horley (1984), they "occur at a day-to-day, specific action level,"

(p. 124). Larson et al. (1984) demonstrate the occurrence "of dramatic daily fluctuations in older adults' subjective states," (p. 2). They contend that mood (which they equate with mood tone, affect and morale) is an important and central component of the focal construct of subjective well-being. They believe that more insight can be obtained in understanding the daily fluctuations in subjective well-being by considering day-to-day factors that impinge on the mood level of an individual. These researchers propose that we need to recognize that there are conceptual limits in our search for life situational correlates of well-being and that this should be replaced by an examination of hourly factors and daily phenomenon that act to influence morale and life satisfaction that are more transitional in mood state. This position is an innovative way of examining life satisfaction. Unfortunately, this level of well-being assessment has not been sufficiently considered by current researchers.

It is not the intent of the author to investigate these various issues, but rather bring them to the reader's attention. Given this review of the definitional disparities in the field, the term "life satisfaction" will be used henceforth and will refer to George's (1979) definition, "an assessment of one's overall conditions of existence and of one's progress toward desired goals. It refers to life in general over a long-range time period," (p. 210). For the purposes of this study the term will be utilized as a long-term referent in assessing current and global satisfaction with life (Schulz, 1985).

Measurement of Life Satisfaction

In the 1940's many investigators were confronted with the inadequacies of studying life processes after 65 years of age. Their plight was compounded by the lack of focus in the novel research area and by the conceptual inconsistencies of "social adjustment" at that time. Nevertheless, the researchers were undaunted in their efforts to understand the aging process and to assess people's adjustment (Cavan, Burgess, Havighurst, & Goldhammer, 1949).

The pioneering studies in this field (Cavan et al., 1949; Havighurst & Albrecht, 1953) were interested in looking at how an individual adjusted to specific domains or life spaces (i.e. work, family, health). This perspective launched the development of several life satisfaction Likert scales that used a close-ended format. These measures represented a range of conceptualizations (Larson, 1978; Roadburg, 1985). Several investigators were of the opinion that happiness or life satisfaction was a multidimensional construct. Examples of these measures are the Life Satisfaction Index (Neugarten et al., 1961) and the Philadelphia Geriatric Centre Morale Scale (Lawton, 1975). While other researchers contended that subjective well-being was a unidimensional construct. Some of the measures developed for this type of conceptualization are Havighurst and Albrecht's Scale of Happiness (1953) and the Kutner Morale Scale (Kutner, Fanshel, Togo, & Langner, 1956).

A major research issue has been whether psychological well-being represents a single construct that can be measured by many indicators or whether it is multidimensional (Lawton, 1977). The discrepancies found in the measurement of the two concepts of psychological well-being, bring us to the second problem in the research area of life satisfaction. Although subjective well-being is often conceptualized by many researchers as being multidimensional, it has frequently been computed as a single measure and thus credited as if it were unidimensional (Hoyt, Kaiser, Peters, & Babchuck, 1980). A prime example of this is shown by the single score obtained in the Life Satisfaction Index-A (LSI-A) (Neugarten et al., 1961). A brief presentation of the development of LSI-A will follow. This index will be used to measure the criterion variable in the study.

Neugarten et al. (1961) were interested in developing a multidimensional measure that would represent the intricacies of subjective well-being. The LSI-A was developed for use in the Kansas City Study of Adult Life (Neugarten et al., 1961). This was an extensive study examining the psychological and social factors involved in aging. The index was designed to assess the "individual's own evaluations as the point of reference; and one that would be relatively independent of the level of activity or social participation," (Neugarten et al., 1961, p. 135).

Based on factor analytical studies, Neugarten et al. (1961) examined measures

of adjustment and morale in order to derive "the most distinguished components," (p. 136) for their life satisfaction index. After six waves of interviews, in which they exhausted several conceptual redefinitions, the authors presented an operational definition of life satisfaction with five dimensions: (1) zest versus apathy - the degree of ego involvement in various activities; (2) resolution and fortitude - the extent to which the person takes personal responsibility for their own life; (3) congruence between desired and achieved goals - the extent to which life goals were achieved; (4) self-concept - the person's concept of self with regards to physical, psychological, and social attributes; and (5) mood tone - the expression of happy feelings, and optimistic attitudes.

Thus, a person who is at the positive end of the continuum of subjective well-being:

1) takes pleasure from the round of activities that constitutes his everyday life; 2) regards his life as meaningful and accepts resolutely that which life has been; 3) feels he has succeeded in achieving his major goals; 4) holds a positive image of self; and 5) maintains happy and optimistic attitudes and mood . (Neugarten et al., 1961, p. 137)

Hence, it was demonstrated how life satisfaction involves both affective and cognitive components, but is computed as a single score.

Some investigators (Cutler 1981-82; Lawton, 1983) argue that single-score measures may be too simplistic and constraining. Lawton (1983) writes:

An injustice is done to the individual when we attempt to give a simple score that represents psychological well-being - when in actuality, it is composed of highly varying indicators. (p. 351)

Horley (1984) emphasizes that, as researchers, we should aspire to develop multi-level assessments of subjective well-being. It is important to keep this in mind throughout the presentation of the present investigation. However, Cutler (1981-1982) maintains that it might be best to use several measures of life satisfaction, each reflecting an individual's satisfaction with his or her range of "domains" of life. He contends that the satisfaction that one person has with life as a whole "is not necessarily the simple sum of specific domain satisfactions," (p.131).

For the purposes of this study, it will be assumed that life satisfaction entails both cognitive and affective components for several spheres of life (i.e. work, family and leisure). Participants of the study were asked to comment on the most satisfying and least satisfying aspects of their life domains. However, respondents were also administered the LSI-A, to obtain a score for their global or general level of satisfaction in current life. An elaboration of both these approaches will be provided in the methods section.

Apart from the unidimensional - multidimensional debate, there is a third problem that is slowing down research progress. Research in well-being deals with the exclusive use of survey self-assessments (Horley, 1984; Larson, 1978). Larson

(1978) contends that the interpretation that we obtain from survey measures is limiting because they are dependent on the "social psychological level of people's day-to-day verbal behaviour," (p. 109). And also, in most instances, these measures ask "how many" and "how often" questions, rather than identifying personal needs and understanding the meanings attached to the variables in question.

Some Discerning Remarks about Life Satisfaction Research

In conclusion, it appears that there are three major problems encumbering gerontological research on subjective well-being. Firstly, there is a vast amount of inconsistency in terminology which accounts for the difficulty in conceptualizing and measuring subjective well-being (George, 1981; Horley, 1984; Lohmann, 1980). Secondly, the traditionally-used global level of assessment is believed, by many researchers, to be inexact and inelaborate (Horley, 1984). The third problem deals with an overemphasis placed in the past years, on utilizing objective self-report measure of life satisfaction, as opposed to subjective self-assessments of well-being (Larson, 1978).

These issues pertain to research efforts of the past and present times. However, they are most pertinent to investigations executed during the period of the mid-forties to mid-seventies. The last ten years has shown a modest paradigm shift in the methodologies used for studies on aging. Several researchers are realizing

that because life satisfaction is a subjective experience, its measurement should reflect this idiosyncratic nature. There has been an upsurge in the use of open-ended questions which enable participants to appraise their life situations, to disclose their sentiments and perceptions, and to provide us with glimpses of personal meanings for various contingencies in their lives. Some researchers have termed the move from asking close-ended questions to an open-ended format, the "phenomenology of aging," (Marshall, 1987; McPherson, 1983; Roadburg, 1985; Ward, 1979). In this study the investigator has attempted to use both open-ended and close-ended questions, in hopes of obtaining a more comprehensive view of aging.

Finally, another clarifying point should be addressed before this is brought to a close. All too often the emphasis of research on successful aging has directed its questions on the relationship between psychological well-being and a myriad of variables. Few attempts have been made by social scientists to survey the other end of the spectrum, namely "unhappiness," or "dissatisfaction with life." This, in itself, may prove to be a fruitful endeavor. A great deal of information is inferred about this area, by means of overestimating the importance of happiness in daily life. It is frequently assumed that the lack of whatever it takes to make someone content is a precursor to a dissatisfied state. This may not necessarily be true. Instead, it might be more feasible to ask direct questions about one's "satisfaction

with life" and one's "dissatisfaction with life". As alluded to earlier, the present investigator has attempted to do so with some aspects of aging, albeit in an exploratory manner.

Some Assumptions Underlying Life Satisfaction Research

Before the author deals further with the motives for studying life satisfaction, she will direct her comments on some commonly-held assumptions in the research area. These suppositions all too often colour the perceptions of the investigators. As a result these themes are overused and overgeneralized.

It is widely assumed in western society that successful adjustment in later life (arbitrarily set at 60 years of age) is a unique and victorious feat accomplished by a competent individual. Most commonly pronounced during this period in life are many adversities that an individual must deal with such as: worsening health, loss of major roles, and depleting financial resources (Herzog & Rodgers, 1981). To rise above these possible misfortunes is to bestow a resilience to many adverse life experiences.

There remains an elusive idea that happiness, is an accomplishment to obtain, let alone maintain. In essence, many of the theoretical writings and empirical studies in the literature are replete with the premise that aging has a negative effect on personal adjustment or subjective well-being (Russel, 1985). Roadburg (1985) may

be correct when he questions the motives of investigators and their interest in examining life satisfaction. "It leads one to believe that many social gerontologists assume that satisfaction is reduced with advanced age. If they do not proceed on this assumption, there would be no reason for the excessive amount of research on this issue. If, on the other hand, they do make this assumption,..., they would be guilty of holding ageist attitudes," (p. 139).

Atchley (1980) contends that there is a value judgement that underlies the study and concept of successful aging. Implied is the notion that some forms of adjustment are better (successful) than other kinds (unsuccessful). It appears as though the act of aging successfully is regarded as an achievement, so that the key elements are worth noting and securing. This notion may be illusory at best and misleading at worst.

A cautionary note must be made for the term "adjustment". A few investigators posit that it is unsuitable in the study of aging (MacLean, 1980; Neugarten et al., 1961). Firstly, it implies that the most desirable pattern of behaviour is conformity (Neugarten et al., 1961). For several years social scientists have attempted to delineate personal adjustment and successful aging against some ideal standard construed by various measures (Roadburg, 1985). Secondly, it connotes an ambiguous positive-negative continuum (MacLean, 1980). For instance, a person may

adjust to a certain experience without enjoyment. And finally, it suggests that a person struggles to overcome certain difficulties or problems encountered in later life.

Perhaps, the most ubiquitous assumption of all is that which gives credence to the "more is better" adage to life. An example in the gerontological literature will be used to illustrate that this additive view of the world does not adequately explain relationships that occur. There is strong evidence to suggest that social roles and relationships are important to the well-being of older adults. Usually the more there are of these, the better for the individual. However, Menaghan (1985) found, in her study of 90 elderly women living in Chicago, that it was the type of social roles and not the quantity that was most related to high levels of psychological well-being. Consistent with many other findings, this study suggests to us that it is important to look not just at the quantity, but the quality of social ties and social support. This cannot be stressed enough in the field of gerontology. In modifying the modern slogan, it is most imperative that "quality comes in, before quantity rules out."

Why Examine Life Satisfaction?

Considering all the conceptual and methodological problems and presumptions found in the study of psychological well-being in later life, why have investigators been so tenacious in their research efforts? Lohmann (1980) offers three explanations as to why there is a plethora of gerontological literature in this area.

One argument is that the research efforts reflect an exercise in epistemology - "knowledge for the sake of knowledge," (p. 29). This has extended itself in several studies. However, upon examining the product of these wide spread endeavors, one is still not able to fully understand what life satisfaction is or what factors are related to it.

Lohmann (1980) posits another reason for research in this field is to obtain peer approval:

It is almost as if such research has meaning, not because of what it contributes to our search for knowledge, but because of the tacit approval it represents of the research focus others have taken. Thus we become involved in an act of mutual affirmation where my research is important because you also engaged in research on this topic and your research is important because of my research on this topic. (p. 29)

Lohmann (1980) claims that a third rationale for why we examine life satisfaction is the potential impact that this type of research can have on the development of public policy and social programs. The author ascribes to this motive for being

involved in the research field of social gerontology. Apart from embellishing the breadth of knowledge in this discipline, it provides a viable means by which we can perhaps ameliorate the quality of life by small gradients at a time. This investigator suggests that research is most helpful when "applied" in nature, whenever the circumstances allow for this to occur. It does not suffice to intellectualize about the influence of certain variables on life satisfaction. These efforts may be deemed as superficial and futile. Instead, "the importance of life satisfaction research to the field of social gerontology could be found in the utility of such research improving the lives of the aged; it is the potential utility of such research that makes a compelling argument for the continuation of this research thrust," (Lohmann, 1980, p. 30)

The crux of the issue is let us make research utile, not futile.

It seems particularly relevant at this time and age to discover under what conditions of individual and social life, the older person is most likely to experience a pleasurable passage to old age. The higher standard of living conditions, advancement in medical and technical sophistication and a greater health consciousness among our society, has both promoted and prolonged life expectancy. We have slowly come to realize that the fountain of youth is indeed a myth, but it's being replaced with the fountain of happiness. Our society is very much obsessed with this particular phenomenon. Self-awareness, fulfillment and contentment are what

many people seek to find in their lives.

The zeitgeist of the twentieth century promotes an advancement and maintenance in the quality of life. Palys and Little (1980) explicate this wide-scale effort in the following fashion:

One purpose of government is to maximize the well-being of the society as a whole, as well as that of its constituents, through particular social interventions (or non-interventions). (p. 67)

The environmental psychology of later life is an important area to consider. Marshall (1981) reports that there is a great increase in the numbers of aged persons from the past century and that there is a great increase in the proportion of the population over 65 years of age. The 1981 Census showed that just under 10% of Canada's 23 million people were aged 65+. Denton and Spencer (1980) have projected that by the year 2001, approximately 12 -14% of Canadians will be aged 65+, and by the year 2031, when the baby boom cohort has entered the later years, approximately 18% of the population will be over 65 years of age.

Overall then, and especially today, Canada can be characterized as a rapidly aging society (Marshall, 1980; Marshall, 1987; McPherson, 1983). Some evidence of this is that politically-oriented organizations of the elderly are becoming a powerful voice for the rights of older Canadian adults. Slogans like "gray is beautiful," and "senior power" are becoming very popular. What this suggests is that in the future,

the government and its auxiliary service vehicles will be forced to maintain and enhance the personal and societal well-being of its older generation.

Life Satisfaction and Level of Activity:

General Overview

For several years social scientists have investigated the relationship between role involvement (activities) and psychological well-being among older adults. The impetus for this type of research developed from the popular belief that the loss of roles resulted in a lower morale (Beck & Page, 1986; Cavan et al., 1949; Havighurst & Albrecht, 1953). Still, other investigators were of the opinion that gradual and voluntary withdrawal from social responsibilities was conducive in ameliorating the quality of life for the older individual (Cumming & Henry, 1960; Gordon, Gaitz, & Scott, 1976).

The controversy over two major theories of aging - Activity theory (Havighurst & Albrecht, 1953) and Disengagement theory (Cumming & Henry, 1961) - has shaped the field of social gerontology since the 1960's (McPherson, 1983). The two diametrically opposed theories have enabled many researchers to further investigate the phenomenon involved in the relationship between life satisfaction in later life and social participation.

Activity Theory

Activity theory, developed by Havighurst and Albrecht (1953) was the first theory in North America to provide a description of personal adjustment and successful aging in later life (McPherson, 1983). This theory proposed that there was a positive relationship between activity and life satisfaction. The central hypothesis being that the greater the involvement in social activities and role involvement, the higher would be life satisfaction in later life. It was argued that adequate levels of social activity were essential for the maintenance of health and of psychological well-being in the elderly. Havighurst and Albrecht (1953) contended that later life was most satisfying for individuals who remained socially active and who sought to replace the loss of roles and activities by substituting them with new roles and activities (Atchley, 1976).

For several years this theory was accepted by most researchers and, in fact, "was the basis for much of the social programming and services provided to the elderly - that is, keep them busy by providing a range of activities and social roles, and they will age 'successfully'," (McPherson, 1983, p. 136). Then in 1960, Cumming and Henry proposed a new way of examining the aging process. "The appearance of a second theory within social gerontology stimulated questions and led to research studies that

sought to support or refute either theory," (McPherson, 1983, p. 136). Consequently, many earlier studies were initiated to explore the relationship between high levels of activity and role involvement and life satisfaction.

Many investigators have found a positive relationship between degree of social activity and life satisfaction (Haven, 1968; Havighurst & Albrecht, 1953; Himmelfarb & Murrell, 1986; Graney, 1975; Larson, 1978; Markides & Martin, 1979; Palmore, 1968; Ragheb & Griffith, 1982). Other studies (Bull & Aucoin, 1975; Hoyt et al., 1980; Lemon, Bengston, & Peterson, 1972) have yielded conflicting results. These researchers did not find activity levels to be good predictors of psychological well-being.

These contradictory findings were considered by many social scientists, who also began to question the validity of the activity theory (McPherson, 1983). It was believed that the theory may not have been complete in its description of successful aging.

Lemon et al. (1972), in their attempts to formulate and replicate activity theory, further advanced the area of inquiry concerning the relationship between five types of social activity (i. e. Informal activity with friends, with relatives, with neighbors; formal activity ; and solitary activity) and life satisfaction. The central theorem in their explication of activity theory was: "The greater the frequency of activity, the greater one's life satisfaction," (Lemon et al., 1972, p. 515).

Lemon et al. (1972) were among the first to make a distinction between different types of activity, based on the degree of intimacy for each activity: Informal (interaction with relatives, friends and neighbors), formal (participation in voluntary associations and church-related activities), and solitary (e.g. reading, watching television). These researchers argued that personal interaction was more conducive to life satisfaction as it provided older adults with more role supports than any other kind of activity, thus enhancing one's role identity.

A set of axiomatic statements, based on an interactionist framework, were supplied by Lemon et al. (1972). Not only was activity involvement supposed to be beneficial for an individual's psychological well-being, but particular types of activity would have a greater impact on life satisfaction than others. That is, informal social activity was expected to exert the greatest effect in subjective well-being, followed in the order of formal activities and solitary activities. Surprisingly, Lemon et al. (1972) did not find significant relationships between life satisfaction and measures of informal, formal and solitary activity. Their data did suggest that of all three types of activity, participation in an informal friendship group appeared to be an important correlate of life satisfaction - but not as important as it was expected to be. It did not exert the greatest impact on morale as initially anticipated.

Longino and Kart (1982), in their effort to formally replicate the theorems of the activity theory explicated by Lemon et al. (1972), also found little support for the theory in relation to certain types of activity. They were responding to the need for theoretical development in this area of social gerontology, as many studies yielded contradictory findings. The study was comprised of 1209 older adults living in three urban public housing settings. Their replication supported Lemon et al.'s (1972) original formulation in two ways: (1) They found a positive relationship between informal activity and life satisfaction and, (2) solitary activity was not shown to be directly associated with life satisfaction. However, unlike Lemon et al., (1972), they found that formal activity was inversely associated with life satisfaction. That is, the more formal activities that an individual was involved in, the less content that person was likely to be. They argued that this finding was at variance with the fundamental assumption of, "the greater the activity, the greater one's life satisfaction," (Lemon et al., 1972, p. 515). "No consideration was given to the possibility that certain activity, perhaps that absence of intimacy, contributes negatively to self-concept. Findings from this replication suggest that theirs [Lemon et al., 1972] was a sin of omission," (Longino & Kart, 1982, p. 718).

Longino and Kart (1982) concluded that certain parts of activity theory have predictive power. That is, the more intimate the type of activity, the higher one's life satisfac-

tion is expected to be. They suggest that the activity theory may need to be revised and broadened by being grounded in symbolic interaction theory. They also intimate that it would be advantageous to consider it in a life-course perspective.

Burrus-Bammei and Bammel (1985) state that activity theory is not removed of methodological difficulties. They list several investigators in social gerontology that make the following criticisms of activity theory: (1) inferences are made about the process of aging from cross-sectional analysis of data; (2) the validity of several subjective well-being scales is questionable; (3) quality or type of interaction should be given more important consideration than quantity or frequency of interaction; and (4) there appears to be an overlap between sets of predictors, whereby previously reported relationships are often reduced when control variables are included in the data analyses. An elaboration of the first three criticisms will ensue. The fourth limitation will be illustrated in another part of this section. When applicable, the investigator will comment on whether the proposed shortcomings also pertain to the present study.

Beck and Page (1986) explicate that the lack of consistent support for activity theory may, in some part, be influenced by the widely varying samples used to test the theory. They argue that many of the samples are more homogeneous than is acknowledged, especially those samples involving retirement community samples.

Predominantly, the studies in social gerontology are cross-sectional in nature. This type of investigation does not permit researchers to infer about the stability or change in patterns across the life cycle. The realm of the present cross-sectional study does not allow the investigator to provide an explanation for this important issue. That is, do people disengage from social participation as believed by Cumming and Henry (1961) (Disengagement theory), or do individuals adhere to their habits and lifestyles by maintaining lifelong interests and pursuing them in later life, as posited by Williams and Wirths (1965) (Continuity theory), or do people become active to compensate for lost roles as claimed by Havighurst and Albrecht (1953) (Activity theory)? These questions have also been addressed by McPherson and Kozlik (1987). They conclude, "studies to date have been unable to explain fully the existing patterns due to a reliance on cross-sectional rather than longitudinal data, " (p. 212).

In addition, the inconsistencies found in the literature may be affected by the myriad measures of activities used in these studies. Researchers may be studying the relationships between life satisfaction and activity, however they often use different indicators to measure both these variables. This is plausible, of course, as the breadth of knowledge is expanding every few years - however, it provides little stability over several research endeavors. "it thus seems advisable that future research on the relation-

ship between activity involvement and psychological well-being should be oriented toward the construction and validation of more standardized measures of these central concepts," (Beck & Page, 1986, p. 15).

Most of the recent research in the field has focused on the quantity of older adults' activities, and has placed less value on the quality or meaning of the leisure and social experience (McPherson, 1983). McPherson and Kozlik (1987) note that there is an array of frequency or intensity intervals employed in the study of social involvement. In some questions the individual reports whether he or she engaged in the activity or not, while in other inquiries frequency of participation on a weekly basis is reported.

For the purpose of this study, level of activity was indexed by the Activity Inventory (Cavan, Burgess, Havighurst, & Goldhammer, 1949). It was developed to assess readjustment and social participation for use with older populations (Mangen & Peterson, 1984). It was one of the first multimodal measures of social participation and one of the few measures for which longitudinal data are available (Mangen & Peterson, 1984). The Activity Inventory attempts to tap the activity level of individuals in five domains: leisure, religious, intimate, health, and financial security. Its questions revolve around descriptive dimensions of self-report: namely, what types of activities are engaged in and how often during a one-week or one-month period.

Cavan et al. (1949) comment that in developing the Activity Inventory (1949) they assumed that the greater the person's degree of participation in an activity, the greater his or her satisfaction with it. This assumption may be questioned in that participation in a given activity may be a compensation for frustration in other activities. Cavan et al. (1949) admit that this may be feasible, however they do not elaborate on the ramifications of such a possibility. Contemporary Canadian researchers such as Marshall (1987), McPherson (1983) and Roadburg (1985) argue that although higher levels of activity are conducive in ameliorating an individual's quality of life, activity is a holistic or multidimensional concept and should be studied with this issue in mind. It is generally agreed, that the external nature of the activity as well as its meaning to the person would warrant a more eclectic view of activity and how it relates to life satisfaction.

To illustrate this point, Lowenthal and Haven (1968) found that a person reported to be happier when they had a confidant. Hence they, like other investigators (Edwards & Klemmack, 1973; Hoyt et al., 1980), suggest that it is not random activity, per se, that is related to life satisfaction, but more intimate and meaningful types of participation as perceived by each individual. Lowenthal and Haven (1968) conclude their discussion by stating that future research, unless it takes into consideration the quality of the activity and intimacy of interactions, will not be able to supply a breadth of new knowl-

edge on the relationships between these two variables.

The present investigator is aware of the shortcomings in the field of social gerontology as it pertains to the study of social activity. For various reasons presented she has utilized instruments measuring frequency and intensity of participation and she has also asked participants open-ended questions about their perceptions. That is, "what kinds of activities are regarded as satisfying and dissatisfying to you?" It is hoped that with this kind of approach, some comments can be made about the quality and quantity of social activity and their relation to life satisfaction.

There is another issue that must be addressed. There are some investigators (Hoyt et al., 1980; Roadburg, 1985) who argue that there are many variables in research that should be taken into account which are not studied. The attempt of this investigation skims the surface of the multidimensional relationship between level of activity and life satisfaction. It is for the reasons provided that activity theory has been criticized for being an oversimplification of the phenomenon of aging. For instance, Hoyt et al. (1980) have found that there is no relationship between life satisfaction and activity. They espouse the view that their data negate activity theory and that its postulates may be too simplistic in providing an explanation for successful aging.

Perhaps Roadburg (1985) is correct when he states, "the activity theory is more

useful as a prescription of how some people can adjust to advancing age than as a theory of explanation," (p. 47). In short, it becomes apparent that activity is a multidimensional concept, and we are just beginning to realize its intricate and versatile nature.

Disengagement Theory

The second tradition in social gerontology represents an alternate perspective in explaining for the aging process. The development of disengagement theory (Cumming & Henry, 1961) was based on empirical findings, whereby the authors' subjects were found to disengage themselves from others and society as they grew older (Roadburg, 1985). Cumming and Henry (1961) viewed aging as, "a functional and voluntary process that involves the inevitable withdrawal or disengagement of the individual from society and of society from the individual," (McPherson, 1983, p. 137). It appears that the disengagement theory may have been a direct response in refuting the activity theory, however McPherson (1983) intimates that this may not be the case. Nevertheless disengagement theory and activity theory are diametrically opposed and are often regarded as antitheses of each other.

Disengagement theory (Cumming & Henry, 1961) views the individual as voluntarily and gradually withdrawing from social roles and social interactions as a result of the

aging process. The individual is supported by societal norms and customs to disengage and is thus given the permission to release himself from the social systems of which he is a member of. "This process of withdrawal replaces the equilibrium that had existed between the individual and society in middle life with a new balance characterized by greater distance," (Burrus-Bammel & Bammel, 1985, pp. 858-859).

In general, the proponents of disengagement theory, as summarized by Crandall (1980) are that individual and societal disengagement are: (1) a gradual process, so that there is a decline in both the number and intensity of social roles with advancing age; (2) inevitable, as death will ultimately be the last life period; (3) mutually satisfying processes, that is, society promotes the aged to become disengaged and make allowances for younger people, while older adults are contented to relinquish their roles to others and may relax in the latter stages of life; and (4) this phenomenon is the norm, especially with regards to mandatory retirement.

Disengagement is believed to be conducive to the psychological well-being of the individual, "because it provides release from normative constraints: the individual is released from pressures to behave as expected, and is given more freedom to deviate from societal expectations without negative sanctions being invoked," (McPherson, 1983, p. 138).

Findings show that, in general, older adults tend to be more introverted and to be less achievement-oriented (Riley and Foner, 1968). It is commonly believed that roles people engage in and the frequency of social participation may decrease with advancing age. In this light, disengagement theory provides a description of some of these trends. However, the debate over disengagement theory is centered around its reasons for disengagement and the consequences that ensue (Ward, 1979).

Many studies have been conducted to either support or refute the basic assumption of disengagement theory. There has been inconsistent support, in the literature, for disengagement theory. Some researchers have reported a decrease in activity with decreasing age (Gordon et al., 1976; Ostrow, 1974; Williams & Wirths, 1960), while still others do not support this premise in their findings (Palmore, 1968; Videback & Knox, 1965).

Application of this theory has helped to explain some puzzling findings: the high morale of individuals who are faced with difficult and constraining conditions in life, and the acceptance of a more contemplative life by many older adults (Back, 1976). However, it is not able to account for those persons who are extremely creative and active in later life, or for those others who are despondent at being forced to withdraw from various activities and social contacts (Back, 1976). Like activity theory, many criticisms

have been directed at disengagement theory.

One particular criticism is directed at the notion that disengagement is mutually satisfying for both the older adult and society. There are several older individuals who engage in many activities and are not discontented by this (Crandall, 1980). Prasad (1964) examined retired industrial workers, did not support the notion that older men were content with their disengaged lifestyle. He found that those who were most active were also the most content, whereas those individuals whose activity was reduced had the lowest level of morale. As suggested earlier, the theory does not adequately explain these empirical findings.

A second criticism addresses the postulate that the process of disengagement is "voluntary" in nature. That is, individuals choose to disengage themselves from roles and activities of their own volition. Some researchers contend that if people do disengage from their normal activities, this may result from a lack of opportunities for older adults rather than a willingness to disengage oneself from preferred activities (Roman & Taiezt, 1967). For instance, Roman and Taiezt (1967) found that emeritus professors, given the opportunity to engage in their usual roles and activities in an academic setting, preferred to do so rather than retire. In addition, Kleiber and Kelly (1980) make an important argument when they comment that the disengaged state may be more a

reflection of limiting factors, such as reduced income, poor health, loss of friends, and inadequate transportation, than of the increasing age. It appears that, in some instances, disengagement is forced on individuals and is not always a product of their own volition.

These two criticisms of disengagement are succinctly summarized by Itzin (1983).

He writes:

The disengagement theory of aging is simplistic and does a disservice to the elderly because it does not focus attention on the factors that really limit or enhance social relations. The amount of social activity by older persons is related to health, income and the economic well-being, previous patterns of social activity, the operation of choice in retirement, loss of friends and relatives, and the opportunities that are, or older people can make, available for social relations and activities. (p. 103)

Thirdly, some researchers have attacked disengagement theory for the misleading interpretations that have spawned from it. Clark and Anderson (1967) are critical of disengagement theory as they believe it downplays the autonomous behaviour of older individuals. They contest that it puts the onus of responsibility on the individual for disengaging, rather than considering the role of circumstances such as ill health and inadequate financial resources. They argue that this theory, when interpreted erroneously, can facilitate misconceptions about the aged and encourage policy makers to be

indifferent in their planning schemes for older adults. In other words, it may discourage the development of progressive interventions that are directed in assisting older adults. Roadburg (1985) argues that if we accept the notion that disengagement is conducive to psychological well-being and that it is a universal phenomenon, there is no need to provide interventions for older adults.

A fourth criticism is directed at the premise that disengagement is inevitable. Indeed, Streib and Schneider (1972) argue that disengagement may be a reversible phenomenon. That is, disengagement may occur at different times for various roles. For instance, it is apparent that when an individual retires he or she disengages from the work role. However, that same individual could take up roles in other domains in life (i.e. being a volunteer, joining clubs). In this vein, Hochschild (1975) suggests that disengagement is believed to be a unitary process, when it should be viewed as involving several kinds of disengagement. With this in mind, it might be more feasible to consider that disengagement may occur at several different levels and it is not an all-or-nothing phenomenon.

McPherson (1983) suggests that there may be a combination of patterns that may lead to more or less life satisfaction. For instance, certain social roles may be continued, discontinued, intensified, reduced, initiated for the first time and have an effect on

life satisfaction. Hence, in order to achieve this role and activity flexibility, a combination of structural disengagement (from work, family or organizations) and continued interaction with age peers, in age-related activities may allow the individuals to reach a healthy medium.

Other critics of disengagement theory are skeptical of the research methods used to test the theory (Hochschild, 1975; Sill, 1980). Like activity theory, most of the studies conducted have been cross-sectional in nature and are limited in their explanations of the aging process. Other individuals, such as Roadburg (1985) comment on the underestimation of the role of the individual personality factors in the theory. While still others attack the theory because it does not consider the meanings that aging and disengagement have for each individual (Hochschild, 1975).

Hence, it appears that the two traditions in social gerontology, in shedding light on some issues, are not totally removed from conceptual and methodological limitations. This point should be taken into account when reviewing the literature on life satisfaction and level of social activity.

Life Satisfaction and Leisure Activity

The term "leisure" is an elusive one and the parameters of leisure are so ambiguous

that it is difficult to delineate the meaning of leisure. It remains a contentious issue to study because the meanings of leisure are highly individualistic (Roadburg, 1985).

Moreover, this area of research is confounded by the ubiquitous assumption in which, "leisure is generally regarded as respite from work, something which must be earned, and which has little intrinsic value beyond its recreational function," (Roadburg, 1985, pp. 62-3). Hence, leisure in the past has been viewed as a secondary issue in aging. The role of work has always been in the forefront.

A clarifying note about one methodological limitation in the study of leisure patterns over the life cycle is also in order at this time. McPherson and Kozlik (1987) contend that descriptive typologies may blur the boundaries of both active and passive forms of leisure. They go on to argue that reading, which is often regarded as a passive activity in the physical sense, can be viewed as an active type of leisure in the cognitive domain (p. 212). Hence, it must be clarified that the activities classified as passive would encompass the first definition. In many instances they are regarded as sedentary in nature because there is often little "physical exertion" entailed in the activity. However, this is not the case for gardening, home maintenance, and the like.

For the purposes of this study, leisure is viewed as an activity that an individual engages in for its intrinsic value and does so on a voluntary basis. The present author

agrees with Ward's (1979) concept of leisure activity as expressive, pleasant, varying in intensity and functioning to be relatively nonobligatory in nature. The present work will focus on the nature and frequency of various activities, such as: reading, watching television, participating in sports, visiting friends, and the like.

Despite these issues, several investigators have stressed the importance of leisure activities to the subjective well-being of older adults (Havighurst and Albrecht, 1953; Marshall, 1980; McAvoy, 1979; McPherson, 1983; Morgan & Godbey, 1978; Palmore, 1968; Peppers, 1976; Roadburg, 1985). Many investigators have found that there is a positive relationship between life satisfaction and social activity (Atchley, 1980; Larson, 1978; McAvoy, 1979; Palmore, 1968; Peppers, 1976; Roadburg, 1985). That is, subjective well-being among the elderly is found to be positively related to high levels of role and activity involvement.

Other researchers have attempted to examine the nature of social activities which are most related to psychological well-being. The investigators (McAvoy, 1979; Morgan & Godbey, 1978; Peppers, 1976) have generally found that the most frequent activities engaged in by older adults are often done alone, tend to take place indoors, are sedentary in nature, and are often inexpensive to partake in. Roadburg's (1985) recent results concur with these findings. The most common solitary pursuits are

reading, watching television, gardening, and walking.

The activity patterns of older adults show that there is a decrease in vigorous, participatory activities and an increase in sedentary spectator activities (Ray, 1979).

Some social scientists believe that television viewing and radio listening are popular because (1) they are important sources of companionship and entertainment, and also (2) they allow the individual to keep in contact with the larger world and with current affairs (Ward, 1979). Ward (1979) further argues that, "television appears to be more than just a way to pass the time - it can perhaps compensate for a shrinking world by providing electronic contact with the larger community," (p. 241). In addition, television viewing has the added bonus which allows for "simultaneous consumption," (Burrus-Bammel & Bammel, 1985), whereby an individual may engage in two or more activities at the same time. These reasons may help us to understand why sedentary activity, such as reading and watching television, are so popular among older adults.

Socializing, especially in the context of the home, is shown to be a favored activity. This suggests that there is little disengagement from family and friends (Ward, 1979). Considered by many elderly people to be a leisure activity, socializing with others will be viewed in the following section.

Mullins and Hayslip (1985-86), in their study of 110 subjects, found that almost all

reported regular church involvement, volunteer work and solitary behaviours. They explain their results by suggesting that the structure of daily activities of older adults adheres to include both work and play, each performed either alone or in the presence of others. "One supposes they are meeting common meaningful needs: to be productive and to be leisurely as well as to interact with others and to have solitary time," (Mullins & Hayslip, 1985-86, p. 49).

This offers a challenging way to examine why some forms of leisure activity are more popular than others. Perhaps an analysis of the needs and potential psychological benefits obtained by partaking in a particular activity, may provide insight into the multidimensional aspects of activity. Adler (1937) espoused the viewpoint that humans are self-determined creatures and directive beings, always striving and capable of shaping their internal and external environment. This might be part of the reason why individuals act as they do, or why they participate in the things that they are involved in. It may be germane to look at the needs of individuals and to see how they attempt to seek the gratification of their practical wishes and desires

An issue that must be addressed is that activity may be influenced by many variables. Hence, the relationship between life satisfaction and level of activity may be confounded or mediated by other factors. Roadburg (1985) cites that, when examining

cross-tabulations between variables, there are relationships found between leisure activities/leisure choices and marital status, living arrangement, education, former occupation, and transportation. For instance, Atchley (1980) found that in terms of their relative importance, goal space, social status, health and income adequacy are all important influences of activity level.

In general, the results of Roadburg's (1985) multiple regression analysis show that "depending on the activity, the nature of the person's living arrangement and marital status seem to be the most important predictor variables in leisure choices, " (p. 79). What this suggests is that current leisure pursuits, per se, may be dependent on other variables that are indirectly related to subjective well-being. Like life satisfaction, leisure activity seems to be a product of a wide variety of factors. The present study will focus solely on examining if there is a relationship between social activity and life satisfaction. The scope of this investigation does not allow the author to make inferences about what influences the social activity of the participants of the study.

It must be stressed that we have limited knowledge about the relationship between level of activity and life satisfaction. This is partly due to the cross-sectional nature of most studies in this field, including the present investigation. It has been illustrated that leisure activities in later life tend to become more sedentary and have the propensity to

be home-centered (McPherson & Kozlik, 1987). Although solitary activity and socializing with friends may be popular types of activity in the elderly, the inclination to be involved in these activities may be a carryover from earlier levels of activity, and not a consequence of retirement or old age (Peppers, 1976).

McPherson and Kozlik (1987) point out that socialization experiences may play an important role in explaining the overall decreasing social participation rates in older adults today. They contend that in the past, leisure was relegated to a secondary status, and a large amount of time was spent at work. They argue that this cohort (those 60 years and older) may not have acquired a high value for leisure (p. 224).

McPherson and Kozlik (1987) note that, at the present time, individuals are more involved in leisure activities and this may follow through in the future. They project that those who are in the 25-to-34 year-old cohort today will be considerably more involved in a wider variety of leisure activities when they reach age 65 and beyond than those in the present 65+ age cohort. However, they maintain that only through longitudinal studies will we be able to explain whether an increase in social participation rates is indeed related to the socialization experiences of this cohort or to the adoption of placing physical activity on a high priority list.

As evidenced, a thorough description of the phenomenon of social participation

entails a study of both the number and frequency of leisure experiences throughout life, as well as its meaning for each person (McPherson, 1983). However, this is not so readily attainable in any research endeavor. The scope of this current study cannot meet the first objective mentioned, however it deals indirectly with the second objective. Respondents are given the opportunity to disclose information about satisfying and dissatisfying activities through the use of open-ended questions. These and mostly other questions (i. e. "definition of life satisfaction") allow for us to obtain some insight into the meaning of how activity relates to life satisfaction.

Life Satisfaction and Intimate Activity

There has been a proliferation of literature on life satisfaction and informal activities with relatives and friends that is voluminous in nature. Several studies show that life satisfaction is positively associated with the frequency of informal activities involving relatives, friends and neighbors (Edwards & Klemmack, 1973; Graney, 1975; Hochschild, 1973; Larson, 1978; Lemon, Bengston & Peterson, 1972; McAvoy, 1979; Peppers, 1976; Roadburg, 1985).

In the 1975 in-depth survey conducted by Harris and associates, of a wide variety of attitudes and beliefs about the aged, 42% of the 2,797 older adults stated socializing with friends as a primary activity, while 21% said that they were involved in the care of

younger or older members of the family. These findings are pertinent to other cultures as well.

Bengston (1969) investigated the activity patterns of retired teachers and factory workers in six countries (Austria, Italy, the Netherlands, Poland, the United States, and West Germany). In general, he found that the most prevalent activity levels were those involving the family. Intermediate activity levels were evidenced with friends and neighbors, while low activity levels were shown in formal settings. Lemon et al., (1972) also found that informal activity in primary relationships was positively associated with life satisfaction. They argued that the more intimate the type of activity (the degree of close personal interaction), the higher will be the life satisfaction of an individual.

Indeed, socializing with family and friends appears to be a prevalent pattern of older adults. Barfield and Morgan (1978) found that the retirees in their study were more satisfied when they were most active in post-retirement work, leisure activities, and social interactions with relatives and friends. In addition, Reid and Ziegler (1977) found that what made their respondents happy was their family and the friendships they had. Ward (1979) espouses the view that although there may be conflicting findings about level of activity in later life, there appears to be little disenchantment from family and friends.

Roadburg (1985), in his open-ended interviews with 352 older adults, examined the sources of pleasure in life. Almost one third of the retirees found pleasure in associations with family and friends and in travel and outings. At the same time, they tended to pursue solitary activities such as reading, gardening, and watching television. He goes on to suggest that activities are qualitatively and quantitatively diverse. "Television and reading can be pursued at will and on a daily basis, whereas interaction with family or friends is dependent on having these individuals close at hand and willing to interact," (Roadburg, 1985, p. 156).

For the purposes of this study, participants were asked about the frequency of interaction with relatives and friends. Respondents were also asked open-ended questions pertaining to this type of activity.

Life Satisfaction and Religious Activity

Religion has been depicted as one of the primary sources of meaning to life. It is often presumed that involvement in religious activity is conducive to the achievement and maintenance of life satisfaction (Guy, 1982). McPherson (1983) states that organized religion has a functional and symbolic role in most societies. It has the potential (1) to provide a sense of security, (2) to allow individuals to be affiliated with an accessible social group, (3) to involve people in another social role, and finally (4) it may offer an

avenue in how to cope with grief, illness and death. Because of these functions, gerontologists have employed moderate efforts in the last 20 years to study patterns of religious behavior during the middle and later years of life (Argyle & Beit-Hallahmi, 1975; Blazer & Palmore, 1976; Crandall, 1980; Guy, 1982; Hadaway, 1978; Hunsberger, 1982; Moberg, 1983; Steinitz, 1980).

According to Atchley (1980, p. 333), religious involvement involves (1) knowledge of the Bible, (2) activism, which includes church attendance, organizational participation, and financial support, (3) creed or adherence to doctrine, and (4) devotional observance, which involves personal prayer and religious meditation. He notes that all dimensions, except for devotional practices, show a decline in later years (especially the 70- and-over age group).

Several researchers have found that there is a positive relationship between life satisfaction and religious indicators, such as: church membership, attendance, reading religious literature and the like (Blazer & Palmore, 1976; Cutler, 1976; Guy, 1982; Hadaway, 1978; Moberg, 1983). However, other researchers (Ray, 1979; Steinitz, 1980) reported no association between the two variables.

The literature on religious activity is replete with discrepancies in supportive evidence. This is because some investigators espouse the traditional view that beliefs

and frequency of religious activity increase in later life (Cavan et al., 1949; Crandall, 1980), while others claim that both religious belief and activity remain stable throughout life (Hendricks & Hendricks, 1981).

In addition, it appears that many investigators often assume that frequency of church attendance and religious beliefs are synonymous with each other, whereby one is directly related to the other. This is not necessarily the case, as will be evidenced. It may be more sapient to differentiate between behaviour and attitudes or beliefs (McPherson, 1983) and to direct future investigations with this issue in mind.

Argyle and Beit-Hallahmi (1975) suggest, after reviewing the literature on religious activity, that frequency of church attendance seems to decline in the 18-30 year-old period, stabilizes during the 30-60 year-old period, and then decreases after 60 years. Religious beliefs appear to remain stable from the late teens until age 60, and then increase after age 60. Blazer and Palmore (1976), in their longitudinal study, supported the belief that religious activity decreases in later life. Guy's (1982) results concur with these general findings. She goes on to suggest that physical limitation is the intervening variable that explains declining church attendance with age. McPherson (1983) concedes with this explanation, "Religious attitudes and beliefs may persist until death; church or temple attendance (behavior) may decrease as health or access

to transportation declines," (p. 423).

Most of the studies that investigate patterns of religious involvement throughout the life span are mainly concerned with and measure church or temple attendance. The religious activity subscale of the Activity Inventory (Cavan et al., 1949) used in this study is one of these measures, and may be regarded as being simplistic in its approach. It fails to enlighten the researcher about the nature and significance of religious experience for each individual.

For some individuals, religion may be a private and subjective experience. To the observer these people may appear to be disengaged from religious events. However, their adherence to religious beliefs may be more readily seen in a nonorganizational sense (McPherson, 1983). Indeed Moberg (1983) found that ritualistic practices outside of the home decreased slightly with advancing age, primarily due to low income, transportation difficulties and physical limitations. However, he notes that this was counterbalanced by activities taking place in the home. Moberg (1983) suggests that a decrease in "external" religious practices (eg. church attendance) may be counterbalanced by an increase in "internal" religious practices, such as prayer or reading religious books at home. That is, these individuals may be involved in personal devotional observances such as listening or watching religious broadcasts on the radio or televi-

sion, reading religious books, or praying at home.

Hunsberger (1982) believes that cross-sectional and retrospective reports of life experiences are efficiently able to tap rich sources of information, that would otherwise not be possible with standard psychometric methods. Retrospective reports allow for us to obtain insight into the older adult's perception of and interpretation of the world (Hunsberger, 1982).

An important point made by Atchley (1980) is that the current research is inadequate in telling us whether religious involvement aids adjustment or whether it is personal adjustment that leads to religiosity. Atchley (1980) asserts a reason why there is little information in this research area is that it has been given low priority. He contends that the federal government has evaded the study of religion and aging, by granting insufficient funds to agencies interested in examining this topic. Indeed, it may take some time before we are able to further our understanding of how and if religion is related to life satisfaction. The focus of this study will be to examine if there is a relationship between religious activity (i. e., frequency of church attendance, listening to radio broadcasts, and reading religious literature) and current life satisfaction in older adults.

Life Satisfaction and Formal Activity

Formal activity can be viewed as leisure activity. However, the author has chosen to devote a specific section on the relationship between group-oriented involvement and life satisfaction. In this study formal activity will be measured by the number of organizations, clubs, and unions that an individual is a member of and by the number of club meetings attended on a monthly basis.

The past ten years has seen an increase in senior citizens' organizations and multi-purpose centres. These centres are social settings where older adults can meet together and socialize at their own discretion in a myriad of recreational and informative services. Senior clubs "provide information and educational services, serve as social centres and support networks, offer leisure opportunities at lower costs, and act as political advocacy groups for the rights and needs of older persons," (McPherson, 1983, p. 421). There are other settings where older adults, just like their younger counterparts, congregate. These are lodges, unions and various religious and political associations.

Several researchers have attempted to examine the relationship between voluntary association membership or formal activity and life satisfaction (Bull & Aucoin, 1975; Edwards & Klemmack, 1973; Riley & Foner, 1968; Ward, 1979). However, there are

several contradictory findings for the relationship between formal activity and psychological well-being. These differences are especially seen between urban and rural populations. Life satisfaction and formal activity are positively related in rural settings (Edwards & Klemmack, 1973; Palmore & Luikart, 1972). This relationship is not readily apparent in urban samples (Lemon et al., 1972). Surprisingly, a consensus has been reached in that once health and socioeconomic variables are controlled, there appears to be no significant relationship between voluntary associations and subjective well-being (Bull & Aucoin, 1975; Cutler, 1973; Edwards & Klemmack, 1973; Ward, 1979).

Ward (1979) cites three possible reasons for the relative unimportance of group involvement. Firstly, older adults who are members of voluntary associations have typically been "joiners" throughout their lives. "This suggests that we are prisoners of past activity, patterns and there may be few new or attractive associational options available to older people,... relatively few are reared to the interests and needs of older people," (p. 250).

Secondly, volunteer association memberships may only be meaningful to a select number of individuals who derive satisfaction from being group leaders. Ward (1979) in his earlier works found that many participants disclosed that the reason for group participation was "it makes the time pass." He posits that this "is hardly a glowing

affirmation of the significance of their involvement. If voluntary associations offer little more than 'lukewarm' social integration, they fail to serve as creative, self-expressive accommodations to new needs in the use of time," (p. 215).

Furthermore, unless group participation is experienced as "meaningful" to each older person and regarded as an avenue for active and intense group involvement, it may fail to be regarded as beneficial. Individuals involved in group involvement that fosters new experiences, creativity, and active participation through various mediums and projects are more inclined to derive enjoyment from such experiences (Ward, 1979).

Cutler (1973) presents another view as to why some of the research findings fail to find a direct relationship between the number of organizational involvements and life satisfaction after control variables have been used. He suggests that those individuals involved in voluntary associations may be better off financially and more healthy than their cohorts and may be seeking the company of others like themselves. The saying "birds of a feather, flock together" may not be so remote in this case.

Cutler (1981-82), in his attempts to apply Cutler's (1973) conclusions, used second-order partial correlations and controlled for sex and education. He found in his study of 2,164 older respondents, that there was an indirect relationship between the member-

ship in voluntary associations and life satisfaction. The data indicated that the higher the levels of membership, the higher was the level of satisfaction derived from such an activity, and in turn the greater the general level of satisfaction in life. Cutler (1981-82) goes on to suggest that voluntary associations may provide the recently retired individual (65-74 age group) much satisfaction, which in turn will influence his or her overall happiness in life. But, "for the older person, however, satisfaction with 'life as a whole' appears to be unaffected by his or her satisfaction with organizational involvements, even though specific satisfaction is indeed affected by the level or magnitude of memberships," (p. 136).

Hence, conclusions made about the relationship between life satisfaction and formal activity must be interpreted cautiously. The cluster of relationships that are concerned with life satisfaction and membership in voluntary associations is quite complex and may be better understood when age-appropriate indicators are regarded in future research (Cutler 1981-82).

Summary of Activity Research Findings

From the literature review it can be evidenced that social activity is a major contributor to the life satisfaction of older adults. However, there are certain kinds of activities

that are most related to psychological well-being. These levels of activity involve leisure or solitary types and intimate forms of social participation. More specifically, they are characterized as being "less intense" physical activities, often done alone, and home-centered forms of sociability including children, siblings, and friends.

Bosse and Ekerdt (1981) found that respondents claimed to have the greatest level of involvement in the following order: solitary, social and physical activities. Concurring with these results, Atchley (1980), in his cross-sectional study of 1,107 older adults, found reading and watching television to be the most common activities performed by his sample. This was proceeded by talking or visiting family and friends. Gardening and travel were the next most common types of activities recorded. Ray (1979), in utilizing the Adult Activity Inventory developed by Cavan et al. (1949), also found that the significant activity correlates to life satisfaction were "health," "leisure activity," and "intimate contacts." Hence what all these studies show is that social activity, not just random activity, is related to life satisfaction. However, particular kinds of activities contribute more to psychological well-being than others. These are mainly leisure activities - of the solitary nature - and social activities with family members and friends.

One of the foci of the present study was to examine the relationship between life

satisfaction and various levels of social activity. The levels of activity were measured by the Activity Inventory (Cavan et al., 1949) and were comprised of "Intimate " or informal activity (contact and associations with family members and friends); "leisure" or solitary activity (reading, watching television, hobbies, gardening, walking and the like); and "religious" or formal activity (church attendance, reading religious works, and voluntary organizational participation). The words in quotations are the actual levels of activity that are measured by the Activity Inventory (Cavan et al., 1949).

The investigator had taken the liberty to use certain parts of this inventory to obtain information on particular kinds of leisure activities, namely those that are done by one-self (solitary activities). The motive for this is that it has been found that solitary activity is an important determinant of life satisfaction. Ordinarily, the leisure subscale accounts for both solitary (i.e., reading, gardening, etc.) and group-oriented involvement (i.e., participation in voluntary associations). Hence, the investigator examined leisure activity as it pertains to solitary and group-oriented involvement and solitary activity (those activities which are done in isolation). This point is elaborated on in the Methods section.

Two goals of this research were to examine whether general activity involvement was associated with psychological well-being, and specifically if leisure or solitary

activity was related to life satisfaction. In addition, the study also examined the relationship between life satisfaction and intimate or informal activity. The literature suggests that there is a positive relationship between these two variables.

Another level of activity addressed was religious involvement. The findings that pertain to this type of activity are contradictory. This is partly due to the conceptual limitations present in the field of social gerontology. The investigator also decided to look at formal activity (i.e., frequency and number of voluntary organizational involvement and church attendance). Formal activity is a broader term that involves a group-oriented involvement (i.e., voluntary associations) and church-related participation. In examining formal activity in this fashion, the author used a few items from the leisure subscale of the Activity Inventory (Cavan et al., 1949) (i.e., those pertaining to organizational involvement) and all the items from the religious subscale. This will also be elaborated in the Methods section. Hence, for the purposes of this study, formal activity involves both these group-centered activities. The literature shows that formal activity is positively related to life satisfaction, but is not an important determinant of psychological well-being as are intimate or leisure activity.

The research on activity level and its relationship to life satisfaction was a partial replication of the theorems of the Activity Theory as explicated by Lemon et al. (1972).

These were: (1) that general activity involvement was positively related to life satisfaction; (2) that three types of activity - leisure, intimate and religious - were all positively associated with life satisfaction; and (3) that the more intimate the activity type was, the higher the psychological well-being of the individual. In addition, the investigator sought to examine which of the different activity levels was most efficient in predicting life satisfaction.

Lemon et al. (1972) also measured role support, role change and self-concept in their study and how these were related to the different types of activity. The present investigator did not attempt to test this aspect of Lemon et al.'s (1972) study. The author was able to obtain information about the number of roles that an individual was presently involved in. However, the type of data did not warrant the author to comment on role support and role change and how it was associated to level of activity and life satisfaction. Another clarifying point is that the researcher directed her investigation on the relationship between level of activity and life satisfaction, as opposed to Lemon et al.'s (1972) examination of the association between level of activity and self-concept.

Life Satisfaction and Social Interactions

General Overview

It is a commonly held belief, by both social scientists and lay people, that participation in social interactions is conducive to personal adjustment throughout life. With this perspective in mind several investigators have studied the relationship between social interactions and life satisfaction (Duff & Hong, 1982; Ell, 1984; Lubben, 1987; Krause, 1987; Shanas, 1973; Thoits, 1982; Ward, Sherman & LaGory, 1984).

Many researchers have assumed that individuals who are actively involved in interpersonal relations with others will have a greater propensity to be satisfied with their lives (Simons, 1984). Indeed many investigators have found that social interactions are positively associated with subjective well-being (Bultena & Dyer, 1971; Graney, 1975; Harel & Noelker, 1982; Snow & Gordon, 1980; Tesch, Whitbourne, & Nehrke, 1981). Still, other researchers have not found any relationship between social interaction and psychological well-being (Connor, Powers, & Bultena, 1979; Lemon et al., 1972; Larson, 1978; Smith & Lipman, 1972). Hence, this area of research is plagued with inconsistent findings.

Social Network versus Social Support

Before the literature in this area of social gerontology is presented any further, it would be appropriate to provide a few definitions. Several investigators have used the terms "social networks" and "social support" interchangeably when defining the concepts involved in social participation. However, the author argues that these terms describe different aspects of social participation and should be regarded as separate from each other. Our knowledge concerning the social relationships of elderly populations has been hampered by several limitations of previous research. One of these shortcomings is a lack of precision defining social networks (Cohen, Teresi, & Holmes, 1985). To distinguish between the terms social network and social support, formal definitions of each will be presented.

Eil (1984) defines social networks as including all of an individual's social contacts. Social networks can be "described along structural and interactional dimensions including size, source of ties, member homogeneity, frequency of contacts, and opportunity for reciprocal exchange of supports," (p. 134). Hence social ties, organization memberships, friends, neighbors, and family can thus be conceived as a social network (Barrow & Smith, 1983).

In contrast, Thoits (1982) claims that a social support system includes individuals within a person's network whom are perceived to be supportive. In other words, social support implies that there is an exchange of instrumental support evidenced by both parties concerned (Lubben, 1987) and that the exchange between these individuals is perceived as beneficial to the recipient (Cohen et al., 1985). Hence, when examining social support, both a need for support and an exchange in support from one individual to another must be evidenced. However, social network includes a variety of interactions that do not necessarily imply benefits to the recipient (Barrow & Smith, 1983; Cohen et al., 1985). For these reasons, social support is a more complex and difficult construct to measure than social networks.

For the purposes of this study, the investigator examined the social networks of older adults. She asked the elderly respondents questions about the scope and frequency of informal social interactions (with household members, relatives, friends, and neighbours) and formal interactions (with specific people such as church goers, salespeople, bus drivers, etc.). To a lesser degree, information on the social support systems of the study's participants were obtained through the open-ended questions.

Theoretical Perspectives of Social Interactions

Some researchers attribute the importance of social interactions to helping people cope in times of stressful life events. The contributions made by social networks to the well-being of the individuals seem to be analogous to the “buffering” view of social support (Dean & Lin, 1977; Ward, 1985).

Still other investigators (Gubrium, 1975; Neugarten et al., 1961) believe that the relationship between social participation and perceived life satisfaction in later life may be a function of the continuity of social activity levels throughout the adult life. In essence, the social lifestyle of an individual's earlier life is continued as that person ages.

A social exchange perspective (Blau, 1964; Chadwick-Jones, 1986) has been put forth in explaining continuing patterns of social interaction among individuals, in accounting for the allocation by age of roles and resources in social groups, and in explaining the acquisition of power and independence by some individuals. This might be one way of understanding the position of older adults in society: are they more dependent, less powerful?

Some authors have been strongly influenced by ideas of economic exchange and rational choices. For example, Barrow and Smith (1983, p. 86) argue for four prem-

ises:

- (1) Individuals and groups act to maximize rewards and minimize costs.
- (2) Individuals use past experiences to predict the outcomes of similar exchanges in the present.
- (3) An individual will maintain an interaction if it continues to be more rewarding than costly.
- (4) When one individual is dependent on another, the latter accrues power.

Hence, social interactions can be regarded as being similar to economic transactions, involving psychological satisfaction and need gratification (Barrow & Smith, 1983).

Informal Interactions versus Formal Interactions

Several investigators concede that there is a direct relationship between life satisfaction and frequency of interaction with family members (Allan & Brotman, 1981; Medley, 1976; Sauer, 1977; Shanas, 1973). Other researchers have shown that subjective well-being is positively associated with interactions with friends (Hochschild, 1973; Graney, 1975; McAvoy, 1979; Peppers, 1976). Still other social scientists (Chappell, 1983; Larson, 1978; Ward, Sherman & LaGcry, 1984; Wood and Robertson, 1978) have found that friends make a greater contribution to morale than do family ties.

Larson (1978) describes the latter group of findings to be both unexpected and puzzling. This is especially the case if we consider that it is the children of older adults that are most likely to provide instrumental support at times of infirmity (Chappell, 1983). In addition, the findings are contradictory if one examines the contribution that social participation has on helping an individual to cope more efficiently during stressful life events (Dean & Lin, 1977).

Larson et al. (1984) suggest that older adults may enjoy interactions with their friends more than with their family because it is in these relationships that they are more apt to feel vital and alive. Hence, they state that "it may well be this ongoing experience of social vitality that makes friendships related to global measures of well-being," (p. 4). To complement this explanation, Berghorn and Place (1978) suggest that family interaction may decline as a rewarding activity because of certain negative connotations, such as dependence and because of generational distance. From this perspective, interaction with friends may be valued more highly because it is voluntary, and is based on choice rather than obligation (Blau, 1973; Chappell, 1983). Friends are more inclined to be viewed as equals and contemporaries.

Nevertheless, there is an area of research that suggests the importance of diversity and substitution in the social networks of the aged. Simons (1983-84) examined

whether three psychological desires (desire for security, for intimacy, and for self-esteem) could be satisfied by various types of relationships. He found that the adult children and spouse of an elderly individual served as a primary source of aid and security, that the spouse was a primary source of intimacy and that participation in formal groups (e.g., clubs and organizations) secured the older adult with a primary source of self-esteem. It was also evidenced that the absence of one type of relationship could be substituted for another, but no simple relationship could satisfy all three of the psychological desires.

Methodological Problems in this Research Area

There is a convergence of findings that suggest that the relationship between life satisfaction and social interactions is not as linear as previously believed to be. Several investigators (Connor, Powers, & Bultena, 1979; Duff & Hong, 1982; Krause, 1987; Ward, 1985) have stressed that the beneficial effects of social networks may be contingent on both the quantitative and qualitative aspects of social relationships (Levitt, Antonucci, Clark, Rolton, & Finley, 1985-86). Hence, it may be possible to attribute inconsistent findings in this field by examining the different methodologies employed.

Ward (1985) argues that most research on the social networks of older people in the

past have been quantitative studies and have sought to make a connection between "frequency of contact" and "number of friends" with psychological well-being. The assumption here is that more is better (Cohen et al., 1985). In most instances these studies have not yielded clear patterns of results between the two variables. Ward (1985) suggests that there is a need for a more qualitative approach to studying social ties and supports. This would include, "the nature of the contact with different network members - casual, intimate, helping, and the like... and the perceived openness of relationships and the extent to which they are viewed as 'enjoyable'," (p. 57). In essence, "attention should be shifted from questions of 'how many' and 'how often' to the meaning of social relationships," (Connor et al., 1979; p.120).

This area of research is plagued with several methodological flaws. According to Lubben (1987), very few social network scales have been developed specifically for the elderly. Hence there is a need for better measures of social networks. However, several investigators have attempted to use composite measures of social networks. Nunally (1978) concedes that these measures generally are more reliable than the single item indexes but, they are often very lengthy and cumbersome to score. Such is the case for the instrument, Social Litespace Measure (Cumming & Henry, 1960), used in this study. For the various reasons presented the investigator utilized an instrument

measuring frequency and scope of social interactions and then asked the respondents about their perceptions. That is "of all relationships that you have shared with others, which are the most meaningful to you at this time in your life?"

The present study attempted to examine the relationship between life satisfaction and social interaction with informal and formal networks (e.g. involving relationships with club and association members, churchgoers, and other specific people). It was hypothesized that both types of social interactions would be positively associated with life satisfaction, and that interactions with friends would make a greater contribution to morale than relationships with family ties.

Life Satisfaction and Social Roles:

General Overview

Another way of examining the social resources of older people is to investigate their present social roles. Social roles can be defined as behavioural patterns, rights, and responsibilities expected from an individual who occupies a specific social status position. According to McPherson, (1983, p. 127) a social role is "a socially defined position within a given social structure that is separate from but related to other positions." The definition results in a set of role expectations derived from what the individual expects while occupying that status, and, more important, what others expect of the

individual in a given situation. These normative expectations serve as guidelines for behaviour in specific situations (McPherson, 1983, p. 127).

Theoretical Perspectives of Role Involvement

Two major hypotheses have been directed at the relationship between role involvement and psychological well-being. The "enhancement" hypothesis (Marks, 1977; Sieber, 1974) maintains that there are several benefits that an individual derives from multiple role involvement: increased self-esteem, privileges at the societal level, and more status.

Recent empirical evidence tends to support the enhancement hypothesis. Some investigators have found that there is a positive relationship between subjective well-being and the number of roles a person is involved in (Thoits, 1983; Baruch & Barnett, 1986). Conversely, the "scarcity" hypothesis (Goode, 1960; Marks, 1977) emphasizes the costs of multiple role involvements and suggests these may lead to demanding, if not tenuous, role obligations.

Role theory can be quite useful in understanding personal development in certain transitory periods in an individual's life. McPherson (1983) describes role theory as making the premise, that movement through the life cycle, especially in later years, is

characterized by a loss or reduction in major social roles (worker, parent, or spouse). Hence, the process of aging involves major role transitions or role exits such as retirement, the deaths of friends and loss of independence (Marshall, 1980). In essence, the number of social roles that an individual maintains can be viewed as a crude estimate of their social resources. Thus, exit from any significant social role depletes an individual's social resources.

Role theory and the role loss perspective have been directed towards the attention of the loss of meaningful roles in later life and their impact on identity, self-concept, and social interaction (McPherson, 1983). This role loss perspective has dominated the thinking of social gerontologists for many years (Kremer, 1984-85). However, there has been a proliferation of literature which suggests that aging is viewed as less problematic than this theory would allow us to think (McPherson, 1983). Larson (1978) found that, in most cases, a change or loss of social roles is not usually sufficient to threaten one's identity or lower one's self-esteem.

Elwell and Maltbie-Crannell (1981) note that many studies that have examined role loss and life satisfaction have yielded contradictory results. It is not sure whether role loss is salient enough to affect overall life satisfaction or whether it is

dependent on certain demographic variables, such as health and social participation. In their study they found that role loss had both a direct and indirect effect on coping resources and life satisfaction for the elderly. This was especially prominent with men. The significant impact of role loss for the men concerned a decrease in formal group participation, while women who had lost a role were found to engage in more informal types of social participation.

Theoretical and Methodological Flaws in Research Area

The field of social gerontology is replete with certain overused and overgeneralizable themes. The most ubiquitous assumption of all is that which gives credence to "the more is better" approach to life. The additive view of the world does not seem to adequately explain the relationship between social roles and life satisfaction. The role of social involvement in later life may be more complex than what is recognized by gerontologists. Hansson (1986) concedes that this complexity may reflect changes in interpersonal needs and opportunities for social interaction in addition to the changing nature and meaning of one's social roles.

Baruch and Barnett (1986) argue that if an individual perceives a particular role

as yielding more benefits than costs, "involvement in that role will have a positive impact on well-being, even if such involvement also increases the number of roles a woman occupies. Although merely occupying a role in no way guarantees that role will be rewarding, not occupying a role clearly precludes deriving any benefits from it," (pp. 583-4).

According to Baruch and Barnett (1986) both the enhancement and scarcity hypotheses are limited because they focus on the number of roles an individual occupies rather than how a particular role might promote or hinder psychological well-being. They suggest, "a clearer understanding of the relation of role involvement to well-being requires examining specific roles and their quality, in relation to specific aspects of well-being," (p. 579).

Moreover, Menaghan (1985) argues that:

it is important to consider the entire context of the individual, including other life changes occurring at about the same time, to understand the impact of specific events on individuals. Such understanding demands a more complex and substantially varied approach than the simple addition models with which this line of research began. (pp. 2-3)

In using two waves of interview data from a Chicago urbanized area, she found that it was the type of social role and not the quantity that was most related to high

levels of psychological well-being. These results show that some social roles (organizational memberships and friends) had little impact, others such as childbearing were shown to have a severe impact if the person already had a repertoire of roles. Menaghan (1985) concludes by stating, "it is important to examine the effect of specific role gains and losses, rather than simply considering the entire social context of individual role changes," (pp. 14-15).

Albeit there are problems with the quantitative approach to social gerontology, the present study investigated the association between life satisfaction and the number of social roles an older individual occupies. It was hypothesized that the more roles an older adult was involved in, the more content that person would be in life. The rationale for using this approach was to provide the reader with an insight into quantitative data regarding older people's social resources, while still being able to administer two measures (Social Lifespace Measure, Role Count Index) in successive order as suggested by their developers (Cumming & Henry, 1960).

Life Satisfaction and Personal Life Events:

General Overview: Identity Crisis versus Identity Continuity

Mutran and Reitzes (1981) note that there are two orientations to consider when

examining retirement and later life, namely identity crisis and identity continuity.

The identity crisis approach suggests that a person's psychological well-being is hindered by the loss of the work role. Conversely, the identity continuity position suggests that retirement has a weak or negative effect on an individual's subjective well-being. In this instance, adjustment to late life may be a gradual and ongoing process.

The former approach emphasizes the negative aspects of later life as it stresses adjustments to be made when withdrawing from a central life role, that of participating in the labour force (Kremer, 1984-85). The latter approach to retirement provides a more positive picture of later life. In effect, it suggests that the loss of a work role allows people time for relaxation and the pursuit of leisurely activities. "It is assumed that the retiree adapts to the unfamiliar situation either by enjoying the reduced pace of his new lifestyle, or by seeking substitutes for his former worker status through re-entry into the labour force or through participation in voluntary organizations," (Kremer, 1984-85; p. 114).

MacLean's Lifestyle Concept of Personal Life Events (1977, 1980)

MacLean (1980) combined both aspects of identity continuity and identity crisis in his version of life events framework. He proposed that the lifestyle concept of personal life events would be an insightful way to examine an individual's reactions to retirement and later life. Life events are often defined as those changes that require adaptive behaviour and that occur over a long period of time in an individual's life (Chiriboga, 1982).

In the past, the concept of life events has been extensively studied and has primarily focused on stress events (Dohrenwend & Dohrenwend, 1974). However, MacLean (1980) argues that research with older adults on life events should be focused on examining the major life events from an individual's perceptions and not just general life events. He believes that a measure of life satisfaction can be obtained by asking an individual to state the most important events of his or her life.

Such events may occur in a variety of domains which include work (e.g., changed jobs, was promoted or demoted, retired), love and marriage (e.g., engaged, married, separated or divorced, death of spouse), children (e.g., birth / death

of children and grandchildren), social activities and recreation (e.g., vacationed, relationships with friends). "Note that some of these events are 'negative' in the sense that they are typically socially undesirable, and some of them are socially desired and hence 'positive.' In either case, they require adaptation and change on the part of the individual experiencing them," (Hultsch & Deutsch, 1981; p. 219).

Work, Family, and Leisure Events

Hence, MacLean (1980) suggests that an individual's lifestyle in three areas (e.g., work, family and leisure) may be related to the most salient events of a person's life. Information about the most important events in life were obtained by retrospective self-reports. The assumption here is that the number of personal major events concerning each of the three lifespaces reflects the importance of each domain in the person's life. Hence, these events may prove to be instrumental in contributing to how a person will react or adjust to later life.

MacLean (1977) put forth three hypotheses that were thought to reflect the relationship between personal major life events and reactions to retirement. They rested on the following three assumptions:

- (1) If work is more important than either family or leisure to an individual he may not adjust well to retirement because a precondition of this new phase in life is that he not work. If the individual gives up a source of satisfaction he may tend to see its replacement in negative terms.
- (2) If family is more important than work or leisure to the individual, he may adjust well to retirement because he will be able to spend more time with his family as a result of giving up work.
- (3) If leisure is more important than work or family to the individual, he may adjust well to retirement because he will be able to spend more time on leisure activities as a result of giving up work. (pp, 2-3)

The present study attempted to test these three hypotheses proposed by MacLean (1977). This aspect of the study was exploratory in nature.

MacLean (1980) found that there was a significant negative relationship between the work proportion of personal major events and the person's enjoyment of retirement. In addition, it was also reported that a significant positive relationship was found between the family proportion of personal major events and enjoyment during later life. He did not find any significance with respect to the leisure proportion of personal major events and reactions to retirement. Although MacLean (1980) examined the personal major events of 44 retired professional men, he does sug-

gest that concept of personal life events may be a significant contribution to the field of pre-retirement courses.

Methodological Flaws in Research Area

As stated earlier, the individuals' perceptions of events was considered as the participants were asked questions regarding both satisfying and dissatisfying life events with regard to work, family and leisure life. However the retrospective research design used involves challenging methodological issues. Several investigators (Hudgens, Robins & DeLong, 1970; Markson, 1985-86, Nisbett & Ross, 1980) have questioned the reliability of subjects' ability to recall events over long periods of time. In addition, life events studies have been criticized because recall of events may also be distorted towards either positive or negative events (Thoits, 1981). Subjects may seek to remember past events and either romanticize these or use them to explain an unfortunate circumstance in their lives.

Nevertheless, Osberg and Shrauger (1986) argue that self-assessments are as valid as traditional assessment methods. They suggest that individuals "have better access to relevant data when judging themselves than when judging others," (p.

1045). Osberg and Shrauger (1986) agree with other investigators (Bower & Gilligan, 1979; Markus, 1977) in that individuals are good at remembering salient and important aspects of their lives. In addition, Shrauger and Osberg (1982) have found that the accuracy of self-predictions is highly associated with the frequency of the events' occurrence. Events that had high or low frequency rates of occurrence were found to be more predictable than those whose frequency rates of occurrence were in the middle range.

Life Satisfaction and Socioeconomic Status:

General Overview

Achieved attributes of an individual such as socioeconomic status often indicate a standard of living and act to influence lifestyle. Hence, socioeconomic status is an important factor to consider in the analysis of a satisfying phase in one's life. Larson (1978) concedes that socioeconomic status is related to life satisfaction, but that this relationship is not attributable to any single component of the socioeconomic factors. That is, income, occupational status, and education all seem to

show relationships to life satisfaction. However, Palmore and Luikart (1972) found that socioeconomic status was weakly and nonsignificantly related to psychological well-being.

Educational Achievement and Life Satisfaction

Educational achievement has been found to be positively associated with life satisfaction (Crandall, 1980; Havighurst, 1976; Hurst & Guldin, 1981; Leonard, 1981-82). Individuals with higher levels of education had higher life satisfaction scores and were more apt to feel that they had fulfilled and even exceeded their life expectations (Havighurst, 1976). In addition, these persons who had attained a higher level of educational training tended to have the highest incomes and often had comfortable lifestyles as a result.

Nevertheless, other researchers (Edwards & Klemmack, 1973; Kremer 1984-85, Markides & Martin, 1979; Toseland & Rasch, 1979-80; Usui, Keil & Durig, 1985) found no relationships between educational attainment and subjective well-being. Markides and Martin (1979), in their path analysis model of life satisfaction, concluded that education had a minor effect for females and a fairly strong effect for

males. In effect, there seems to be a discrepancy in literature findings with regards to life satisfaction and educational attainment. It is commonly assumed that education is a means by which an individual can obtain social mobility and hence a more comfortable lifestyle. Yet, it is also maintained that educational attainment, for the elderly population, does not play as great a role in quality of daily living as it currently does for adults in modern society. For these reasons it was hypothesized that educational attainment would not be positively associated with life satisfaction.

Occupational Status and Life Satisfaction

The findings are also inconsistent with regards to the relationship between psychological well-being and occupational status. Some researchers (Hurst & Guldin, 1981; Leonard, 1981-82) purport that occupational prestige is positively associated with subjective well-being. While other investigators (Markides & Martin, 1979; Toseland & Rasch, 1979-80) found no association between occupation and life satisfaction. Once again, it was hypothesized that there would be no linear relationship between life satisfaction and occupation. The discrepancy in research findings alerted the present investigator to be cautious in her hypothesis in this area.

Income and Life Satisfaction

Most research has shown that there is positive relationship between life satisfaction and income (Barfield & Morgan, 1978; Beck, 1982; Dorfman, Kohout & Heckert, 1985; George & Maddox, 1977; Larson, 1978; Leonard 1981-82). Larson noted that of all factors involved in the relationship between psychological well-being and socioeconomic status, income tended to be the most salient one. Markides and Martin (1979) found that income was indirectly related to life satisfaction via activity. Hence, financial security was seen as being an important factor and was known to play a role in subjective well-being. Once an individual had money, this enabled one to live a more comfortable lifestyle and to be involved in various recreational activities. Income tended to allow older persons to become involved in several hobbies and activities.

However, a few other investigators found no relationship between life satisfaction and income (Snider, 1980; Toseland & Rasch, 1979-80). There seems to be a general consensus that older individuals need less income than their younger counterparts (Snider, 1980; Strate & Dubnoff, 1986). The elderly are spared from

expenses that are work-related and are not saving for retirement. It is assumed that they have spent several years of their lives making financial preparations for later life. Strate and Dubnoff (1986) note that many elderly individuals are free of any mortgage and often pay less property and federal taxes than the rest of the population. Some others benefit from federal and provincial government programs such as home health care and meals on wheels, in addition to senior citizen discounts on public transportation, consumer goods, and entertainment (Strate & Dubnoff, 1986). However, it has been shown that the elderly spend more money on health care than any other group (Strate & Dubnoff, 1986).

Self-Perceptions of Income Adequacy and Life Satisfaction

Although income is an important indicator of economic well-being, several investigators (Carp, Carp, & Millsap, 1982; Peterson, 1973; Wan, Odell & Lewis, 1982; Youmans, 1966) believe that an individual's assessment of their financial security is dependent on several factors: income, age, social status, relative deprivation, and life expectations. Usui, Kell & Durig (1985) found that the better an individual perceived his or her situation to be when comparing it to a close relative's predicament,

the higher the life satisfaction rating was. These findings are consistent with the theory of relative deprivation (Merton & Kitt, 1950). Merton and Kitt (1950) argue that an individual is constantly comparing oneself to other members of one's primary group. The individual constantly appraises life and does so by using a reference group of significant others. Therefore, "feelings of relative financial deprivation in comparison with previous lifestyle and in comparison with peers may influence how people assess the adequacy of incomes," (Wan et al., 1982, p. 25). However, contrary to literature findings, Baur and Okun (1983) did not find that perceived adequacy of income was significant in predicting life satisfaction.

An important distinction should be made between actual financial resources and perceived financial resources. Palmore and Luikart (1972) and Spreitzer and Snyder (1974) found that the person's perception of having adequate financial resources for needs and extras, and having no need for financial assistance seemed to be a more important determinant of life satisfaction than objective economic resources (monthly income) and actual SES. Thus, a factor implicated is that if the income during later life is perceived as being adequate to live on, the greater the standard of living and the greater the global life satisfaction will be. "The impli-

cation is that there is a level of sufficient income, above which additions in income are less consequential to contentment," (Larson, 1978, p. 113). It was hypothesized that perceptions of income adequacy were positively associated with life satisfaction.

Economic Activity Score and Life Satisfaction Score

In examining the relationship between socioeconomic status and life satisfaction, the investigator also used the economic activity subscale of the Activity Inventory (Cavan, Burgess, Havighurst, & Goldhammer, 1949) as a measure of financial security. Cavan et al., (1949) believed that economic status and activity were related to each other. An individual who was financially secure was more capable of becoming involved in recreational activities, as compared to another person experiencing financial difficulties. The investigator did not wish to violate the psychometric qualities of the Activity Inventory (Cavan et al., 1949) and chose to give the participants the Inventory in full. However, she was aware that this subscale might have been methodologically flawed. As a result, it was hypothesized that the economic activity score would not be related to the life satisfaction scores.

Life Satisfaction and Perceived Physical Health Status:

General Overview

Several variables have been found to be associated with life satisfaction. Health is the most frequently examined variable investigated and several studies have found a robust and positive relationship between life satisfaction and physical health status (Baur & Okun, 1983; Beck, 1982; Bull & Aucoin, 1975; Cavan et al., 1949; Crandall, 1980; Datan & Lohmann, 1980; Edwards & Klemmack, 1973; George & Landerman, 1984; Kozma & Stones, 1983; Larson, 1978; Light, 1984; Lubben, in press; Markides & Martin, 1979; Palmore & Kivett, 1977; Palmore & Luikart, 1972; Sauer, 1977; Spreitzer & Snyder, 1974; Stones & Kozma, 1986; Toseland & Rasch, 1979-80). Hence, good physical health has been shown to be associated with high levels of life satisfaction, while poor health has been found to correlate with lower levels of psychological well-being. In effect, an individual is most apt to enjoy later life if he/she has the physical health and mobility to live a lifestyle of his/ her own choosing.

Datan and Lohmann (1980) concede that most studies that have examined health and life satisfaction, have found that a relationship does indeed exist. However, they note that there is a primary disagreement about the strength of the relationship between the two variables. There are some studies whose premise is that health is the most important predictor of life satisfaction, while others show it to be of less importance.

The Importance of Health on Life Satisfaction

Based on his review of the literature findings on life satisfaction, Larson (1978) reported that health was the most strongly related element, from a diverse selection of other variables, to subjective well-being. Several other researchers also found that health was the most salient predictor of life satisfaction (Edwards & Klemmack, 1973; George & Landermann, 1984; Light, 1984; Markides & Martin, 1979). Based on the proliferation of research findings, it was hypothesized in this study that perceived physical health status was positively associated with life satisfaction and that it would be the best predictor variable.

Zautra and Hempel (1984) argue that, although there appears to be a significant relationship between well-being and physical health, there are few explanations that

can help us to understand why these two variables are associated with each other.

The underlying premise in research is that an individual with good physical health is able to lead a comfortable life, can partake in various activities, is not plagued with feelings of physical discomfort, and therefore can spend more time being involved in various recreational pursuits.

However, various researchers have concluded that the relationship between subjective well-being and health is a complicated one. Zautra and Hempel (1984) believe that "the relationship between life satisfaction and health may be a conditional one, moderated by socioeconomic status and other individual differences in resource availability, [activity, number of close friendships, interactions with family, friends, and neighbors]," (p. 103). For instance, Soumerai & Avorn (1983) found that the presence of optional, paid employment opportunities had positive effects on perceived health and life satisfaction. Lohr, Essex, and Klein (1985) found that the relationship between life satisfaction and social support was mediated by health status. That is, "focusing on social support, it is clear that women with a greater number of supports for health problems were more satisfied with life. And those

who were in less equitable support relationships, receiving more help for health problems than they gave, had lower life satisfaction," (p. 6).

Using their replicated secondary analysis to examine the association between life satisfaction and health, George and Landerman (1984) concluded: (1) Although a moderate relationship was found between health assessments and well-being, physician-assessed health showed lower correlations with well-being than subjective indices of health status, (2) subjective health is associated more robustly to negative affect, and (3) life satisfaction and subjective physical health are influenced by age. Hence, more seems to be involved in the robust and linear relationship between life satisfaction and health. There are several intervening variables which seem to play a role in the association between the two variables examined.

Definitions of Physical Health

When examining physical health status, there are several different methods that can be used to obtain information from the respondents concerning this issue.

Liang (1986) posits that there are three major approaches to the operationalization of physical health: (1) the physical definition (medical model: presence or absence

of a disease), (2) the social definition (functional model: individual being mobile), (3) the subjective evaluation of health (psychological model). The present study used the psychological model and examined the individual's perception of his/her overall physical health and its relationship to life satisfaction. Hence, respondents were asked whether they felt that their health enabled them to do what was satisfying to them (adequacy of health) and to describe their overall health status (from poor to excellent).

According to Levkoff, Cleary, and Wettle (1987), health perceptions are influenced by several factors and there does not seem to be a consistent general finding that the elderly underreport or overreport bodily symptoms. However, some researchers (Levkoff et al., 1987; Palmore & Luikart, 1972) found elderly individuals were most apt to be overly negative in their self-perceptions of health. Levkoff and associates (1987) believe that several stresses caused by situational events most evident with advancing age (e.g., widowhood, retirement, chronic illness, loss of social roles, and feelings of isolation) may act to elicit increased body preoccupation. Furthermore, chronic illness may promote self-absorption with the body's ill-functionings. This problem may be perpetuated with a general feeling of malaise,

which may act to further allow an individual to have a poor perception of health.

Conversely, Maddox and Douglass (1973) found that their elderly subjects had more of a propensity to overestimate the assessment of their health than to underestimate it. In conclusion, these investigators believed that elderly individuals were overly optimistic in their self-evaluation of health.

Self-Perceptions of Health and Life Satisfaction

Despite some of the discrepant findings in this area of research, several investigators (Larson, 1978; McPherson, 1983) noted that self-health perceptions among elderly adults were congruent with objective evaluations by medical professionals.

Several social scientists found that the relationship between physical health and life satisfaction was the strongest when the respondent rated his/her own health

(George & Landerman, 1984; Larson, 1978; Levkoff et al., 1987; Okun, Stock,

Haring, & Witter, 1984; Zautra & Hempel, 1984). Moreover, several researchers

(Edwards & Klemmack, 1973; Larson, 1978; Palmore & Luikart, 1972; Spreitzer &

Snyder, 1974) showed that health satisfaction was a more important determinant of

life satisfaction than actual state of health. Larson (1978) maintained that those in-

dividuals who perceived their health to be better and who reported fewer functional limitations had a consistently higher morale and were more satisfied with their lives.

Levkoff et al. (1987) stated that reference group theory (Kemper, 1968) provided a good framework by which to explain an elderly person's positive health assessments. "According to this perspective, elderly adults maintain positive health perceptions when confronting illness, adjusting their perception of health in relation to their age peers," (pp. 114-115). Tornstam (1975) conceded that the elderly, as a group, were most likely to be realistic in their expectations for their health and would compensate for this by being thankful for having some functional health. As a result, the aged would be most likely to maintain positive health perceptions, even if their state of health was not optimal. Another explanation commonly used is that the aged may be aware of certain disabilities, but attribute this to the 'normal processes of aging rather than to disease...elderly persons believe that old age is inextricably associated with illness and functional decline, which leads to normalization of symptoms," (Levkoff et al., 1987, p. 115).

Zautra and Hempel (1984) reviewed eighty-one studies that examined subjective well-being and physical health. Of eighty-one studies reviewed, they noted that a

majority found a moderate and robust association between psychological well-being and self-reported health. Zautra and Hempel (1984) found that eight of the eleven studies with nonsignificant findings used objective indices of health. They noted that self-ratings of health were more multidimensional and gave added information on both the presence and absence of disease and the positive or negative physical and psychological well-being associated with one's health. Based on these findings, the present investigator measured physical health status using self-evaluations of health. It was hypothesized that the subjective perception of health (e.g., adequacy of health and labeling of health status) would be positively associated with global life satisfaction among older adults.

Life Satisfaction and Gender:

General Overview

A recurrent issue in social gerontology has been gender differences in life satisfaction. Despite numerous studies, Larson (1978) states that the empirical evidence on the relationship between the two variables is inconclusive. Several inves-

tigators have found that there is no association between life satisfaction and gender (Collette, 1984; Edwards & Klemmack, 1973; Jackson, Bacon, & Peterson, 1977-78; Kelly, 1982; Larson, 1978; Leonard, 1981-82; Liang, 1982; Neugarten, Havighurst & Tobin, 1961; Palmore & Lulkart, 1972). The evidence is strong to suggest that there is no relationship between the two variables. Hence, it was hypothesized that there would be no relationship between life satisfaction and gender.

On the other hand, Sauer (1977) found that females were more content with their lives than their male counterparts. Other investigators, as will be shown, found that older males were more satisfied with their lives than older females. Roadburg (1985) maintains that these conclusions are exceptions to what is generally found in the literature. He goes on to suggest that these differences can be accounted by the various measures used to obtain information on life satisfaction.

However, a few investigators (Atchley, 1976; Knapp, 1977; Spreitzer & Snyder, 1974) found that men, on average, had a higher morale than women. When controlling for various variables, Atchley (1976) found that loneliness, depression, feelings of anxiety, uncertain self-concepts, and being highly sensitive to criticism were significantly more prevalent among older women than among older men. Nev-

ertheless, older men were more apt to identify themselves as being old and were more susceptible than women to anomie. Atchley (1976) concluded that older women showed a greater prevalence of "negative" psychological characteristics when compared with older men.

Atchley (1976) believes that aging for men, especially those from a working-class background, seems to bring desirable disengagement. Many older men are involved with their friends and in organizations when compared to older women. Atchley (1976) suggests that older women, when compared to older men, are less likely to respond to aging in active terms (e.g. increasing social interaction, participating in labour force).

Liang (1982) uses the concept of sex roles to provide an explanation for the inconclusive results. It has been regarded by many researchers that men obtain their status and identification through their means of employment, whereas women derive their identity from roles in the family - however, this situation is beginning to change. At the present time, the woman's traditional role as a homemaker is making room for the breadwinner role that is becoming more prevalent in our society. Liang (1982) seems to suggest that both men and women now face similar proc-

esses of attainment in life satisfaction. It remains feasible to suggest that any gender differences observed at the present time for older individuals may not be the same for upcoming cohorts of senior citizens (Atchley, 1976; Cain, 1967). There are many generational differences between the younger and older generations living in this point in time. It remains unlikely that women in the past were confronted with both roles concerning the homemaker and breadwinner task dimensions: unlike the choices which modern women of today can make. It seems that this perspective would be suitable in accounting for the present population of younger people who are aging. An important consideration is argued by Atchley (1976) and this should be cautiously exercised in future studies.

Methodological Flaws in Research Area

Atchley (1976) reported that "compared to older men, older women are older, more likely to be widowed, more likely to be less well-educated, and more likely to have inadequate incomes." (p. 204). He contends that if gender differences are found, they are usually confounded with the effects of other determinants of morale such as education, income and health status (Markides & Martin, 1979; Medley,

1976). He argues that investigators examining gender differences in later life should do so by controlling for certain variables, such as: age, marital status, education, and income adequacy. Consequently, this may be a reason why no consistent sex differences can be determined (Liang, 1982).

Liang (1982) argues that these inconsistencies can be traced to three major sources: "(1) neglect of important control variables or their misspecification, (2) the failure to distinguish between main and interaction effects, and (3) the lack of statistical tests when comparisons across sex groups were made," (p. 101). He concludes that simple comparisons made between sexes should be judiciously interpreted and considered cautiously.

Life Satisfaction and Chronological Age:

General Overview

The relationship between life satisfaction and chronological age seems to be controversial. Some evidence suggests that psychological well-being appears to

decline with advancing age (Alston & Dudley, 1973; Blau, 1973; Harris et al., 1975; Larson, 1978). Larson (1978) noted that this decline in well-being may be a product of other factors which impinge on the very old (e.g., decreased health, decreased financial resources, widowhood, loss of friends, and decreased activity).

Conversely, some investigators (Clemente & Sauer, 1976; Rubin & Rubin, 1986) found that individuals 40 years and over reported higher life satisfaction than did younger individuals. Felton (1984) suggests that there are cohort variations which may play a role with regards to age differences in subjective well-being. "Older respondents may not have gotten more content, but only seem to have gotten more content because of the greater unhappiness of younger adults," (p. 6). Felton (1984) concedes that individuals from different cohort groups have different sets of beliefs and values which are reflective of the historical period in which they were growing up in. "Thus age differences in well-being, in theory, might be due as much to cohort differences in values, expectations, and preferred coping strategies as to anything inherent in the aging process," (Felton, 1984, p. 3).

However, other social scientists (Baur & Okun, 1983; Edwards & Klemmack, 1973; Palmore & Kivett, 1977; Palmore & Luikart, 1972; Spreitzer & Snyder, 1974)

suggest that there is no relationship between the two variables. In their study, Edwards & Klemmack (1973) reported that when they controlled for socioeconomic status, the relationship between life satisfaction and age was eliminated. They suggested that differences in SES and in measurement techniques used to assess life satisfaction may have accounted for some of the variations found in the relationship between life satisfaction and chronological age. Due to the contradictory literature findings, it was hypothesized in this study that chronological age was not associated with life satisfaction.

Theoretical Perspectives in Research Area

The general assumption in most gerontological research appears to be that life satisfaction is a stable trait in the course of life. This is evident as most studies that have examined the predictors of life satisfaction have been cross-sectional, have focused primarily on the young-old, and have looked at community residents in later life (Baur & Okun, 1983). Baur and Okun (1983) in their longitudinal study of retirement community residents found life satisfaction scores remained relatively stable. They demonstrated that slight changes in concurrent life satisfaction scores was

related to self-perceived health, being neglected by friends, and not being able to ride in a car with a friend as a usual form of transportation. They concluded that, "the overall stability of life satisfaction scores lends support to the notion that life satisfaction is a relatively enduring cognitive assessment of attainment of one's desired goals or overall condition of life,...,these results are consistent with continuity theory which suggests that people maintain their levels of life satisfaction over time," (p. 264).

Palmore and Kivett (1977) also found, in their longitudinal analysis of life satisfaction among men and women aged 46 to 70 years, no significant changes in mean life satisfaction scores for any sex-age cohort. They summarized their findings by stating that there was a stability of life satisfaction throughout the studied age range for both sexes. They conceded that they were unable to predict changes in life satisfaction and made the following conclusions:

The best predictors of future life satisfaction appears to be the person's life satisfaction in the past and the relatively small changes that occur appear to be largely unrelated to initial values or changes in values of other variables that are related to life satisfaction in cross-sectional analysis. (p. 315)

However, other investigators believe that the evidence found for the stability of life satisfaction scores throughout life denotes a false impression of what the eld-

erly's perceptions are and is reflective of inadequate methodological procedures.

Allen and Jerries (1984) argue that there are few studies employed concerning differences in life satisfaction among the "young-old" and "old-old". They write, "one of the interesting trends in the assessment of life satisfaction of the elderly has been the tendency by researchers to treat the elderly as though they were a homogeneous group of individuals with respect to age,...[and] may reflect the influence of an assumption held by many researchers in which dimensions of life satisfaction are presumed to be constant across the elderly segment of the life span," (p. 3).

Allen and Jerries (1984) question the influence of the assumption held by researchers in which all dimensions of life satisfaction are presumed to be constant across the life span. Certain studies (Allen & Jerries, 1984; Cutler, 1979; Herzog & Rodgers, 1981) have found that the relative contribution of the underlying dimensions of life satisfaction may actually change over the course of time. That is, "some dimensions may contribute more to life satisfaction at one point in time while other dimensions may contribute at other points in time," (Allen & Jerries, 1984, p. 3).

Allen and Jerries (1984) argue that although life satisfaction score totals may be

similar between younger and older populations, there may be differences in the item configuration pattern of these two groups. Hence, it may be that different, and often opposing, items are contributing to the overall satisfaction scores of the young and elderly. In their study they performed a secondary analysis on data gathered in 1981 and 1982 from 90 elderly women. Using an item-removed alpha analysis, they found that items contributing most to the satisfaction of the young-old involved income and accomplishment. Conversely, reliable indicators of life satisfaction for the old-old involved philosophical dimensions and health-oriented factors. They also reported that the total income level was the most predictive contributor of life satisfaction for the young-old and least for the old-old. However, health was the most predictive variable for the old-old, but the least predictive variable for the young-old. They suggest:

Subtle but important changes in life satisfaction may occur across the elderly portion of the life span, even if life satisfaction score totals remain the same... Essentially, total scores on life satisfaction were masking important differences in the way the two groups were tapping the underlying life satisfaction dimensions. (p. 4)

In summary, the inconsistent findings between life satisfaction and chronological age suggest that part of this relationship may be a reflection of inadequate psy-

chometric measures. Several researchers have argued for more care in developing measures that would take age differences into account, as well, as the possibly changing nature of life satisfaction among the elderly. In addition, the research in this area denotes that chronological age is influenced by several lifestyle factors, hence the relationship between psychological well-being and age is a complex one.

Summary of Research Findings

Since the 1940's, a number of variables have been examined in how they relate to life satisfaction. The research in this field has been extensive. Larson (1978) reviews the attempts of investigators at studying the subjective well-being of older adults in a thirty year period. The following variables represent a small array of the many factors that have been tested for their influence on psychological well-being: gender, age, marital status, health, socioeconomic status, living arrangement, leisure and social participation, role involvement and religiosity, to name a few.

The research shows that life satisfaction is most strongly associated with health, socioeconomic factors, activity, and degree of social activity and interaction (Larson, 1978; Snider, 1980; Toseland & Rasch, 1979). The attempts to understand

the positive-negative continuum of subjective well-being are not so definitive. However, several studies using different methodologies have yielded comparable results which have found:

conclusive relationships between measures of this positive-negative dimension and the exigencies of people's life situations. Poor health, low income, and lack of social interaction, among other things, are clearly related to lower expressed satisfaction with life, lower morale, and lower contentment. (Larson, 1978, p. 109)

It can be appreciated that aging is exceedingly complex in nature and to try to understand a satisfying type of aging may be idealistic, at best. Kuhlen (1959) is both wise and eclectic in his statement as to how complicated the study of successful aging is:

Thus it would be hypothesized that the degree to which various phases of life (i.e. various age periods) offer basic gratifications or pose serious threats and thus influence adjustment will depend upon such matters as the meaning of life and aging to the individual, the role he occupies at a given age rather than his age as such, his "general style of life" and personality makeup (i.e. rigidity-flexibility), situational factors that may pose environmental stresses, and personal factors (eg. capacities) which not only may be threatening in their own right but also may reduce the individual's ability to cope successfully with his environment and to achieve gratifications in usual ways and to usual degrees. (p. 892)

The scope of this study was modest, as it mostly examined the linear relationship between life satisfaction and several personal and lifestyle variables. The

purpose of the present study was to investigate some of the conditions of individual and social life, which appeared to be most conducive to the life satisfaction of elderly individuals living in the community. Despite recent contributions to the literature examining subjective well-being, there remains a paucity of information on the evaluation of life experiences by individuals. The present study attempted to provide insight into both the qualitative and quantitative aspects of psychological well-being. In essence, the various research questions reflected the investigator's effort to learn more about the "phenomenology of aging," as demonstrated by the self-reports of the elderly respondents.

Method

Subjects

The participants in this study were 60 men and 60 women selected from the communities of Halifax and Dartmouth's senior citizen population. The participants were sixty years of age and older and were residing independently. The statistical analysis of power estimate was used to determine an adequate sample size needed for the study. A thorough description of this analysis is supplied in Appendix A.

Convenience sampling was employed to obtain the elderly volunteer sample for the study. The proposed sampling procedure does not provide a representative random sample. For various reasons, a sample frame of elderly individuals was difficult to obtain. In general, many senior citizens are reticent about participating in events of this nature and have been cautioned by public and law officials to be careful in their interactions with strangers. In addition, there is restricted access in obtaining a comprehensive list of all the elderly people living in the two cities, such as the Internal Revenue and Old Age Security lists, without breaking the code of confidentiality. Other investigators have obtained national samples through various types of polls and from federal governmental agencies. However, this was not the case for the present study.

Sixty-seven people were interviewed in Halifax, and fifty-three were interviewed in Dartmouth. The length of the interview ranged from 50 minutes to 7 hours, with a mean of 2 hours and 27 minutes. The interviews took place during the period between May 15, 1986 and December 5, 1986. The mean age of the sample was 74 years ($SD = 8.1$) and the minimum and maximum ages were 60 and 94 years. Fifty-eight (48.3%) individuals were married, while forty-one (34.2%) were widowed and twenty-one were either single or divorced (12.5% and 5%, respectively). The mean number of years of education was 12.05 years. A description of the demographic characteristics of the respondents is presented in Table 1. Refer to Table 2 for a complete description of health characteristics and physical condition of the respondents.

This sample of 120 respondents was divided into three age groups: (1) 60-69 years (young-old) ($n = 40$); (2) 70-79 years (middle-old) ($n = 40$); and (3) 80 years and over (old-old) ($n = 40$). Each of these three age groups was further subdivided so that there were 20 females and 20 males aged 60 to 69 years, 20 females and 20 males aged 70 to 79 years, and finally 20 females and 20 males aged 80 years and over.

The respondents were from a variety of settings. Several of the participants were members of senior citizen information centres ($n = 25$), manors ($n = 20$), retirement clubs ($n = 16$), of university alumni associations ($n=7$), fitness agencies ($n=25$),

Table 1
Description of Demographic Characteristics of Respondents^a

Demographics	N	%
City		
Halifax	67	55.8
Dartmouth	53	44.2
Interview Setting		
Home	104	86.7
Centre	15	12.5
Telephone	1	0.8
Length of Interview		
less than 1 hour	1	0.8
1 - 1 1/2 hours	16	13.3
1 1/2 - 2 hours	20	16.7
2 - 2 1/2 hours	29	24.2
2 1/2 - 3 hours	19	15.8
3 - 3 1/2 hours	26	21.7
3 1/2 - 4 hours	2	1.7
4 - 4 1/2 hours	6	5.0
more than 4 1/2 hours	1	0.8
X = 2 hours, 27 minutes		
Gender		
Male	60	50.0
Female	60	50.0
Age		
60 - 69 (young-old)	40	33.3
70 - 79 (middle-old)	40	33.3
80 - 94 (old-old)	40	33.3
X = 73.98		

(table continues)

Demographics	N	%
<hr/>		
Marital Status		
Single	15	12.5
Married	58	48.3
Divorced	6	5.0
Widowed	41	34.2
Religion		
United Church	35	29.2
Anglican	24	20.0
Roman Catholic	29	24.2
Baptist	13	10.9
Other	19	15.8
Race		
White	118	98.4
Black	1	0.8
East Indian	1	0.8
Residence Type		
Private home	66	55.0
Apartment	31	25.9
Seniors only housing	22	18.3
Presbytry	1	0.8
Education		
Grade 3	1	0.8
Grade 4	1	0.8
Grade 5	5	4.2
Grade 6	3	2.5
Grade 7	3	2.5
Grade 8	12	10.0
Grade 9	8	6.7

(table continues)

Demographics	N	%
Education		
Grade 10	4	3.3
Grade 11	0	0.0
Grade 12	52	43.3
Trade School	9	7.5
Bachelor's Degree	9	7.5
Master's Degree	9	7.5
Doctorate's Degree	4	3.3
	X = 12.05	
Former Occupation		
Professional	22	18.3
Managerial	23	19.2
Clerical / Technical	48	40.0
Housewife	11	9.2
Farm Labourer	4	3.3
Semi-skilled / Unskilled	11	9.2
Jesuit	1	0.8
Employment Type		
No	115	95.8
Yes, Part-time	5	4.2
Post-Retirement Monthly Income		
\$400-499	3	2.5
500-999	54	45.0
1000-1999	40	33.3
2000-2999	15	12.5
3000-3999	7	5.8
4000+	1	0.8
	X = \$1301.09	

(table continues)

Demographics	N	%
<hr/>		
Perceived Adequacy of Income		
Yes	102	85.0
No	18	15.0

Note. Columns may not total 100% due to rounding error.

^aN = 120.

Table 2

Description of Health Characteristics and Physical Conditions ofRespondents^a

Health Characteristics	N	%
Self-Assessment of Health		
Excellent	37	30.8
Good	46	38.3
Fair	31	25.8
Poor	6	5.0
Perceived Adequacy of Health		
Yes	93	77.5
No	27	22.5
Physical Conditions		
Cardiovascular Disorders		
Hypertension	45	37.5
Heart Attack	17	14.2
Angina	15	12.5
Poor circulation	11	9.2
Stroke	5	4.2

(table continues)

Physical Conditions	N	%
Diseases of the Bones and Joints		
Arthritis	52	43.3
Back problems / Disk problems	51	42.5
Rheumatic stiffness	38	31.2
Osteoporosis	4	3.3
Gout	2	1.7
Gastrointestinal Disorders		
Heartburn	22	18.3
Hiatal hernia	17	14.2
Ulcer	7	5.8
Respiratory Disorders		
Asthma	6	5.0
Bronchitis	5	4.2
Eye Problems		
Poor vision	31	25.8
Cataracts	11	9.2
Glaucoma	4	3.3
Legal blindness / blindness in one eye	3	2.5
Hearing Impairment	38	31.7
Nervous Breakdown	12	10.0
Cancer		
Stomach	2	1.7
Throat	2	1.7
Skin	1	1.7

(table continues)

Physical Conditions	N	%
---------------------	---	---

Other Conditions:		
Diabetes Mellitus	12	10.0
Headaches	12	10.0
Gall bladder dysfunction	7	5.8
Pernicious anemia	3	2.5
Thyroid disorders	3	2.5
Inguinal hernia	3	2.5
Pinched nerve	2	1.7
Neuropathy	1	0.8
Speech Impairment	1	0.8
Emphysema	1	0.8
Epilepsy	1	0.8

Note. The physical conditions listed are not exclusive of each other.

Respondents may have one or more of the physical conditions in each category presented.

^aN = 120.

bowling clubs ($n = 15$), and church groups ($n = 12$). Most were interviewed at home ($n = 104$), some were encountered at senior citizen centres ($n = 15$), and one respondent was spoken to over the telephone. Many individuals were initially approached at the above settings, while others volunteered through the suggestion of their family members and friends who participated in the study. Interviews commenced at the Spencer House in Halifax and at the Senior Citizen's Information Centre in Dartmouth. As the study progressed, contacts were made with other community directors.

Measures

Each of the participants were asked questions from the following self-report inventories and open-ended questions devised by the investigator. These inquiries comprised the semi-structured interview survey schedule supplied in Appendix B.

1. Demographic Characteristics

Items included city and setting of interview, the date of the interview, the starting and finishing time of the interview, the number of telephone calls needed to obtain and

to complete interviews (for each respondent it took 1 telephone call, respectively) and, gender and chronological age.

2. Background Questionnaire

Information from participants was sought concerning their background, in order to describe the nature of the sample. Items included are birth date, chronological age, marital status, religious preference, place of residence, racial background, and employment status (5 respondents were working on a part-time basis).

3. Socioeconomic Characteristics

This part of the interview survey contains items measuring educational level, monthly income, perceived adequacy of income, perceived financial security and occupation. While no index of the socioeconomic status of the sample was used, occupation in conjunction with income and education have long been considered as viable social stratifiers.

Educational level was recorded as the highest level of educational attainment disclosed by each respondent. Given provincial differences in educational curriculum, the level of schooling was categorized in the following fashion: Grades 1 to 11 were

presented as individual years spent in school; Grade 12 was the level that respondents obtained their high school diploma; Trade school involved 13 to 14 years of schooling; Bachelor's degree entailed 16 years of formal education; Master's degree included 18 years of educational attainment; and Doctorate's degree involved 20 to 21 years of scholastic experience.

Income was assessed by asking respondents about their average monthly income, including their old age security payments. For reasons of privacy, the monthly income disclosed by each participant is only as accurate as they report it to be. The exact figures for the average monthly income were recorded. To facilitate the reported level of economic attainment by each respondent, a visual presentation of the income question was included in the interview survey. Average monthly income was categorized into 14 income ranges.

Other sources of remuneration included in the study were perceived adequacy of income and queries about financial security. Perceived adequacy of income was measured by asking the respondent to reply either "yes" or "no" to the question of whether or not he or she assessed his or her income to be adequate in meeting his or her needs. Financial security was assessed by the security subscale (items 18 to 20; items 18 and 19 are gender specific questions) of the Activity Inventory (Caven, Bur-

gess, Havighurst, and Goldhammer, 1949). The Activity Inventory was devised as a measure of personal and social adjustment with regards to the level of activity of elderly individuals. Even though financial security is a concept different than activity level, it was deemed by Cavan and his associates (1949) to be an important aspect of life (p. 137). Hence, it was included in the Inventory because of the impact of economic status upon activity. Scores on this subscale can range from 0 (low) to 10 (high). Scores in this study ranged from 0 to 7. Low scores denote that the individual is experiencing economic limitations that may restrict his or her overall level of activity. High scores indicate that the individual is not experiencing any economic problems, and assuming that the respondent has interests, then he or she may be able to partake in those activities without being restricted by economic limitations.

The total score of the financial security subscale is derived as follows: item 18 is addressed to males and a score of 0 is given if "no", 2 if "working part-time", and 5 if "working full-time"; for item 19, a female is given 0 if she does not take care of her own home, a score of 2 is granted if she does some of the housework, 5 is given if she does everything by herself; if a respondent does not check anything for item 20, a score of 5 is given, however a score of 0 is granted if one or more items are checked. There are certain methodological flaws with the scoring of this subscale that

would warrant the investigator's suspicion of its validity. This point will be elaborated in the discussion section. Cavan and associates (1949, pp. 141-42) reported a correlation of .33 of the Activity inventory's security subscale with an observer-rated checklist and portrait score.

Former occupation was ascertained by asking each respondent about his or her major occupation in life. While there may be no generally accepted nominal occupation scale in the field, a 7-item scale was utilized to facilitate in the coding of this variable. Professional includes (lawyer, doctor, social worker, writer); high-level management (accountant, bank manager, personnel manager, etc.); trades and clerical (plumber, cabinetmaker, construction worker, typist, secretary, receptionist, filing clerk, etc.); semi-skilled or unskilled (private household workers and maintenance-related jobs); farm labourer; housewife; and other in this study refers to a Jesuit priest.

4. Perceived Physical Health Status

A combination of three measures of an individual's self-perception of health status were utilized. These include the Self-Evaluation of Health Indicator (Shanas, Townsend, Wedderburn, Friis, Milhoj, and Stehouver, 1968), perceived adequacy of health, and the health subscale of the Activity Inventory (Cavan et al., 1949).

The self-evaluation of health (Shanas et al. 1968) is a single-item indicator consisting of four response categories: "excellent", "good", "fair", and "poor". The "excellent" category is sometimes dropped, but it was included for the purpose of this study. The concept being measured is the global self-perceived health status of the individual (Mangen and Peterson, 1984, p. 102). Shanas and associates (1968) did not document any information on formal tests of validity for the instrument. However other researchers such as Maddox (1968) did test the convergent validity of the instrument by comparing the self-perceived evaluations of the respondents with the physicians' assessment of the health of the participants. The indicator was shown to differentiate adequately between those individuals experiencing difficulties with mobility and ambulatory individuals. Furthermore, Shanas and associates (1968) state that "the self-evaluation that old people make of their health is highly correlated with their reports of restrictions on mobility, sensory impairments, and the overall incapacity scores," (p. 54). However, they provide no documentation of the correlation coefficients that they allude to.

Perceived adequacy of health was measured by asking a direct question regarding the respondent's self-evaluation of the sufficiency of his or her health. The respondent was asked to reply "yes" or "no" to the question of whether or not his or her health

enabled him or her to partake in desired aspects of life.

Functional health was assessed by the health subscale (items 14 to 17) of the Activity Inventory (Cavan et al., 1949). The subscale addresses several topics concerning the health status of the respondent, these include: serious physical problems, persistent physical difficulties, days spent in bed last year as a result of an illness, and related physical conditions. Cavan and associates (1949, p. 137) admit that health status is a different concept than activity level, however they have included it in their inventory because of its impact upon activity. Scores on this subscale range from 0 (low) to 10 (high). Scores in this study ranged from 0 to 10. Low scores denote that the individual is experiencing physical problems that may limit her or him in overall level of activity. High scores indicate that the individual is not experiencing any physical problems, and assuming that the individual has interests, then she or he may be able to participate in those activities without being restricted by health problems. The scoring procedure for each item on the subscale is as follows: if no physical problems are checked a score of 4 is obtained, a score of 3 is granted if one physical problem is checked, if two or more items are checked this warrants a score of 0; if no physical difficulties are checked a score of 2 is given, 1 is given if one difficulty is checked, and 0 is obtained if two or more items are checked; a score of 0 is given to a respondent

who replies to having stayed in bed 2 or more weeks, 1 is granted if just for a few days, while 2 is given if the respondent does not spend any time in bed due to an illness; 2 is granted if a person is not troubled with any physical conditions, a score of 1 is given for one item checked, and 0 is obtained for two or more items checked off. Cavan and associates (1949, pp. 141-42) reported a correlation of .41 between the health subscale of the Activity Inventory with an observer-rated checklist and portrait score.

5. Activity Inventory

The Inventory consists of 20 questions, 19 of which are used in the summated subscales (as stated earlier, items 18 and 19 are gender-specific). These make up one overall score of activity level and address several types of activity: leisure (items 1 - 5), religious (items 6 - 8), intimate contact (items 9 - 13), health (items 14-17), and financial security (items 18 - 20). As summarized in Mangel and Peterson (1984, p. 23), the inventory is scored as the simple sum of weights derived from a comparison of cases with high and low scores. Response weights correspond to an ordinal scale of frequency. In most instances, the more activities one participates in and the more frequent these are performed, the higher the score obtained. Concerning health

activity and financial security, the less limitations that an individual has to contend with the higher the score will be. The overall scores on Activity Inventory can range from 0 (low activity) through 50 (high activity). The actual range of scores found in this study was 11 to 40 (with a mean of 27 and standard deviation of 5.84). It was reported by Cavan and associates (1949, p. 141) that the overall scores on the Inventory ranged from 5 to 43 (with a mean of 25.5 and a standard deviation of 8.8) in their sample of 102 older participants.

The five subscales of the Activity Inventory can also be constructed by a summation of response weights, as described, for the appropriate items. The scores for each of these subscales range 0 through 10. A low score indicates low levels of activity, and a high score denotes high participation rate in activity. The leisure subscale addresses several topics concerning what is done during an individual's free time, the hobbies of each respondent, how much time on a daily basis is spent in reading, how many organizations is an individual currently involved in, and the number of club meetings attended on a monthly basis. This subscale assesses solitary leisure activity and organizational participation. The range of scores found in this study was 2 to 10. Cavan and associates (1949, pp. 141-42) reported a correlation of .38 between this subscale and a combined checklist and portrait score (refers to criterion-referenced

validity).

The religious subscale pertains to church-related activity such as: frequency of attendance of religious services, frequency of listening to church services over the radio, and frequency in reading religious literature. The range of scores obtained in this study was 0 to 10. Cavan and associates (1949, pp. 141-42) reported a correlation of .31 between the subscale and an observed checklist and portrait score (refers to criterion-referenced validity).

The intimate contacts subscale measures frequency of contact with family relatives, friends, and younger people (i.e. grandchildren, and nephews/nieces, etc.). It also addresses certain types of information, such as: who the respondent resides with and if he or she feels neglected by close relatives. The range of scores obtained in this present study was 0 to 10. Cavan and associates (1949, pp. 141-42) reported a correlation of .37 between this subscale and a combined checklist and portrait score (refers to criterion-referenced validity).

Descriptive information and scoring procedures for the financial security subscale and the health activity subscale were mentioned earlier in this section. A correlation between the health subscale and the Activity Inventory was .65, as reported by Cavan and associates (1949, pp. 141-42). Split-half reliability for the inventory was calcu-

lated utilizing the Spearman-Brown formula (e.g. $r^n = \frac{nr}{1 + (n - 1) r}$).

where r is the original reliability; r^n is the reliability of the test n times as long, Cronbach, 1960, p. 131) and was estimated at .66 (Cavan et al., 1949, p. 138). The Spearman-Brown formula estimates the reliability of a test score, if the test were lengthened or shortened (Cronbach, 1960, pp. 130-31).

A slight modification of the aforementioned scoring procedures for two of the three subscales previously presented was devised by the investigator. Items 1 to 3 in the Activity Inventory were utilized to make up the solitary activity subscale. This subscale involves leisure activities that an individual does by oneself. For example; hobbies, reading, gardening, shopping, sewing, maintenance of household, sports, listening to the radio, watching television, etc. would fall into this category. The rationale for using three of the five items originally utilized in the Inventory, was that the three items were indicative of solitary activity, while the two other items were representative of a group-oriented involvement (e.g., church attendance and voluntary association participation). The range of scores for this subscale was 2 to 6. A low score denotes low levels of activity and a high score indicates high levels of activity.

In order to assess formal activity (referring to organizational participation and

church-related activity) items 4 to 8 were used to obtain a score for this type of activity. It will be recalled that items 4 and 5 pertained to participation in clubs and comprised the leisure activity subscale. While items 6 to 8 tapped into religious activity and comprised the religious subscale of the Activity Inventory. In collapsing items of 2 subscales, a score for formal activities ranged from 0 (low activity) through 14 (high activity). The umbrella name of "formal activity" was chosen to describe this type of activity, as the activities listed were performed in the presence of others and in various settings, other than at home.

Indeed, as will be shown, both the scores on the leisure subscale and solitary subscale yield comparable correlation coefficients between the life satisfaction index scores. In addition, the scores on the religious and formal subscales also yield similar correlation coefficients between the life satisfaction index scores. The intimate activity subscale scores and the informal activity subscale scores are duplicates of each other. The reason for the two different names is that the first refers to the original name of the subscale in the Activity Inventory, while the second name is the counterpart to formal activity. However, both subscales tap at the level of activity between the respondent and significant others.

The findings of the two subscales modified by the researcher must be interpreted

with caution. In selecting 3 of the 5 items in the leisure subscale to comprise the solitary activity subscale, and in collapsing items from 2 subscales to obtain a formal activity score - some of the psychometric qualities of the Activity Inventory will also be altered. It must be stated that in violating some psychometric qualities, the findings that were obtained by the modification procedure in this section, are to be viewed using cautionary measures.

6. Social Lifespace Measure

The Social Lifespace Measure (Cumming and Henry, 1961, p. 47) is a composite measure whereby a score is derived from a "quantitative estimate of the numbers of discrete [or separate] contacts with others which the respondent has in a month".

Cumming and Henry (1961) arbitrarily set the unit of time at one month. This measure does not take into account the length of time in which the interaction lasts. Rather it is related to the scope of contact and frequency of contact that a respondent has with others in a period of a month. The "scope of contact" refers to the actual number of individuals that the respondent sees in the span of one month, while "frequency of contact" pertains to the rate at which face-to-face encounters with each person mentioned, by the respondent, occur. This measure does not tap into the qualitative or

“evaluative dimensions” (Gibson, 1986-87) of social interactions. That is, the information supplied by this instrument does not allow the investigator to infer how the respondents evaluate the adequacy of interactions with significant others or whether they are content with each social interaction. Instead, it taps into the quantitative or “descriptive dimension” (Gibson, 1986-87) of reported social interactions. For instance, the investigator is able to know specifically, for each respondent, the approximate number of individuals that he/she deals with in a month and the number of discrete contacts with these individuals during this interim.

The measure assesses the number of social contacts an older person has for 6 dimensions: (1) household, (2) relatives, (3) confidants, (4) neighbors, (5) fellow workers, and (6) specific others (includes organizational members, churchgoers, etc.). The score is based on answers to pre-coded questions about the number of contacts with these 6 categories of people (p. 47) . The scoring of the questions were weighted according to the following criteria for “frequency scores”, (pp. 46-7): (1) Household: assuming daily interaction with each person in the household (other than the respondent), each person listed is multiplied by 30 (days); for (2) Relatives , (3) Friends and (4) Neighbors (this is based on one neighbor that is seen most frequently): each person mentioned is given a score of 30 if seen daily, 4 if seen once a week, 3 if seen

a few times a month, 1 if seen once a month, and 0 if seen anything less; (5) Fellow Workers: assuming daily interactions (approximately 20 days per month) a score is given for the number of fellow workers mentioned multiplied by 20; and (6) Specific People: Cumming and Henry (1961) assume that when asking the respondents about this, the participants responded by thinking about the number of specific people seen on a weekly basis. They state that this assumption is supported by "some empirical evidence," (p. 247). However, they do not document any data for this. The frequency scoring procedure for specific people is the number stated multiplied by 4. Cumming and Henry (1961) maintain the following when designating a scoring procedure for this measure: "Consideration was given to the relative amount of normative control generally expected in the situation when the weighing was worked out. Thus, friends and relatives were weighted more than neighbors," (p. 246).

Initially, the scores obtained were based on a Poisson distribution, which has the property of being a discrete distribution. In order to use the Lifespace measure as a continuous variable, Cumming and Henry (1960) transformed the scores to $\sqrt{(n + 1)} + \sqrt{A}$, where $(n + 1)$ is the total number of the persons mentioned and A is the raw sum of the six items. An improvement was made on the distribution of scores, however it was still Poisson in nature. An elaboration on the Poisson distribution and a

visual representation of the complex scoring procedure for the Social Lifespace Measure is supplied in Appendix C.

According to Betty Havens (personal communication, March, 1987; (Aging in Manitoba studies, 1971 and 1973), it is feasible to examine individual scores of each group of people in a respondent's social network system. A score for each of the 6 categories can be acquired by computing the transformed square root procedures. That is, a score for "contacts with friends" can be obtained by using the square root formula in place of the raw sums for scope of interactions (e.g. 6) and frequency of interactions (e.g. 24) (e.g. $6 + 1$ and 24 are transformed into $\sqrt{(6 + 1)} + \sqrt{24}$). This scoring procedure was performed in order to address hypothesis 10. The higher the score, the more interactions within a month the individual has engaged in. It was also suggested by Havens (personal communication, March, 1987) that (1) an informal social interaction score could be calculated for each respondent by summing four elements: household members, relatives, friends, and neighbors, and then transforming these by the square root formula; and that (2) a formal social interaction score could be attained for each participant by summing the remaining two categories: fellow workers and specific people, and then transforming these by the square root formula. This scoring procedure was used in order to address hypotheses 8 and 9.

Cumming and Henry (1961, p. 48) report that the Social Lifespace Measure is

shown to supply high scores to those respondents whose lives have variety, as opposed to those who have fewer but longer interactions with others. For example, "an elderly married woman who is her husband's constant companion but who sees few other people would have ... a low Social Litespace. On the other hand, a man who lived alone and had very little sustained social interaction but who had, during the course of a day, a large number of brief encounters with different people might have quite a high Social Litespace," (p. 48).

No formal analysis of validity of this measure was reported by Cumming and Henry (1961). However, as suggested by Mangen and Peterson (1984), indirect evidence of convergent validity and discriminant validity is available (Cumming and Henry, 1961, pp. 39-43).

7. Role Count Index

The intent of the Role Count Index (Cumming and Henry, 1961) is to measure the range of social roles in which an older person is currently active. It involves eight items tapping into the following roles: (1) household, (2) relatives, (3) friends, (4) neighbors, (5) fellow workers, (6) specific others, (7) church, and (8) organizations. The Index is scored by combining the eight-item response scores. The respondent

acquires a point for each role that he or she is in. The exception to this is with household members: a score of 1 is given if one person other than the respondent lives in the household, while 2 is granted for 2 or more people. The scores range from zero (no roles) through nine (many roles). In this study the range of scores was 1 through 9.

Havens (personal communication, March, 1987) has commented that scores representative of the number of informal and of formal social roles that a respondent is currently active in can also be obtained. Informal social roles would involve household members, relatives, friends, and neighbors. The range of scores found in this study were 1 through 5. Formal social roles would pertain to those involving fellow workers, specific people, church members, and organization members. The scores range from 0 through 4.

Like the Social Lifespace Measure, the validity of the Role Count Index was not reported by Cumming and Henry (1961). Although, they have supplied indirect evidence of convergent validity and discriminant validity in a tabular form (Cumming and Henry, 1961, pp. 39-43). Both of these measures are estimates of the degree of the respondent's engagement with society. It is practical to administer them in successive order.

8. Life Satisfaction Index-A (LSI-A)

Life satisfaction was measured using the Life Satisfaction Index-A (LSI-A) (Neugarten, Havighurst, and Tobin, 1961). The instrument is usually administered in a paper-and-pencil format or in personal interviews. For the purposes of this study both methods were used simultaneously.

The instrument contains 20 statements for which the respondent may wish to agree, disagree, or comment "not sure". A score of one is given for each response marked "X", for which the authors have deemed to be a high life satisfaction response. A zero score is obtained if the respondent chooses a response other than the one preferred by Neugarten and her associates (1961). Scoring is accomplished by summing the item-response weights. Scores may range from 0 (low) through 20 (high), with a high score indicating satisfaction with life. Neugarten and associates (1961) reported that the mean score of the LSI-A was 12.4, with a standard deviation of 4.4. This researcher found the mean score of the LSI-A to be 14.4, with a standard deviation of 2.9.

Tests of reliability for the instrument were employed by Adams, (1971), where he used a biserial correlation and a discriminant value (D values) between the mean of

the affirmative-response groups for each item and the LSI-A mean score for his sample of 508 persons. Adams (1971) found that in using the biserial correlation technique, all of the items except for 11 and 14 were reliable. Instead, the D values indicated that all items except item 11 fell within 20% to 80%, which is the acceptable range.

Neugarten and associates (1961) presented several formal tests of validity for the measure. They reported that the correlation of the LSI-A with LSR was .55. The Life Satisfaction Ratings (LSR) is an instrument that consists of five rating scales for the five above components of life satisfaction. As elaborated by Mangen and Peterson (1984), the ratings were based on the raters' inferences from all of the information that was supplied. This included knowledge about the interpersonal relationships of each respondent and about the reaction of others to the respondent. Mangen and Peterson (1984) contend that there is weak evidence of content validity between the correlations of LSI-A and LSR. Neugarten and associates (1961), in documenting the validation of the instrument, also compared scores on the Life Satisfaction Index to ratings made by a clinical psychologist. The correlation between these two scores was .39.

9. Personal Major Life Events

The lifestyle concept of Personal Major Life Events was employed by MacLean (1980) to obtain a measure that would predict an individual's reactions to retirement. MacLean (1980) used a retrospective technique and asked each individual 4 open-ended questions: (1) statement of all major life events, (2) statement of satisfying life events, (3) statement of dissatisfying life events, and (4) statement of any other satisfying or dissatisfying event pertaining to three aspects of life - work, family, and leisure. Each event was assigned by an independent judge to one of the following mutually exclusive classifications : (1) work events, (2) family events, and (3) leisure events (p. 85). The proportion of work, family, and leisure events to total number of events in each of the four categories was calculated for each respondent. The greater the proportion of life events (i.e. work, family, and leisure) in the total events listed by the individual, the more important would be the group events in the person's life. These proportions were then correlated with the scores of the reactions to retirement of the participants in MacLean's study. MacLean (1980) did not supply any data on the reliability and validity of the measure.

This research explored the theoretical framework of the Major Events Theory of Life with a modification of MacLean's procedure (1980). However, asking respon-

dents four discrete, but general and related questions, might be confusing and redundant. Following personal communications with MacLean, (May, 1986 and August, 1986) , a parsimonious solution to this difficulty was to ask respondents two specific questions about each life event (i.e. "Could you please state for me the most satisfying work events in your life?" conversely, "Could you please state for me the least satisfying work events in your life?"). Hence, the measurement would consist of 6 distinct questions or categories.

Also, a consensus was reached whereby the assistance of judges was not required for this measure. Since respondents were asked specific questions about each life event, each response was accepted at face value and no importance was given to their order of presentation. The investigator did not attempt to rank the life events, but rather to record them as discrete events. In directing the request to two particular themes for each life domain, this may have decreased the possibility of respondents focusing solely on positive or negative events. Furthermore, respondents were asked to focus on all three life events. This inclusion minimized unintentional response bias by participants, by focusing on only one aspect of life. In essence, the investigator did not have to discern categorizing main events into one of the three life domains examined in the study. It was explicitly understood that the events disclosed to the inter-

viewer pertained to work, family, or life events - as the questions were focused and specific to each domain. See Questions 15 to 20 in Appendix B.

Following MacLean's (1986) suggestions, the proportion of both satisfying and dissatisfying events in relation to the total number of events cited for the three life domains of work, family, and leisure, was calculated for each respondent. For example, the following proportions would be calculated for an individual who cites 19 events of which 14 are satisfying and pertain to work ($n = 5$, 26%), family ($n = 6$, 32%), and leisure ($n = 5$, 26%); and 5 of which are dissatisfying and are related to work ($n = 0$, 0%), family ($n = 3$, 16%), and leisure ($n = 1$, 5%). In order to obtain a percentage, each n is divided by the total events cited and then multiplied by 100.

10. Open-Ended Questions

The nature of the study dictated a qualitative approach to obtaining information on subjective well-being. Twenty-six open-ended questions were employed for the purpose of tapping into relevant questions that pertained to the goals of this study (Refer to Appendix B). The open-ended questions were prepared by the investigator, with the assistance of Dr. Barbara Keddy.

There are two primary purposes for the use of open-ended questions in this study:

(1) They appear to be a methodologically-sound strategy in studying life satisfaction research, and (2) They will be used as anecdotal evidence that may help with the interpretation of the research findings. There are no scoring procedures employed for these questions, except that the themes yielded by each question will be documented and presented in tabular form.

The purpose of question 1 was to obtain the respondent's definition of his or her current life satisfaction, while in questions 2 and 3 participants were asked to comment on events/situations that were satisfying and dissatisfying at the present time. Question 4 addressed whether or not the individual was content with her or his present situation, and to ways that it could be improved, if at all. The intent of questions 5 through 8 was to obtain the respondent's perceptions and forecasts of the most satisfying and least satisfying aspects of life in the past and in the future. Information about the most satisfying and least satisfying activities in which the individual was involved were obtained in questions 9 and 10. Questions 11 through 14 were aimed at examining the perceptions of the individual with regards to the most satisfying and least satisfying social relationships she or he experienced at the present time and in the past. In effect, questions 9 through 14 dealt with the qualitative dimensions of both social activities and social relationships. Questions 15 through 20 involved

asking respondents about satisfying and dissatisfying life events involving three domains: work, family, and leisure. The goal of asking participants questions 21 through 23 was to obtain an understanding of what were some of the losses involved, if any at all, with three life spaces: work, family, and leisure. The object of question 24 was to ask the person whether her or his income was adequate in meeting her or his needs. Question 25 was aimed to examine whether or not the health of a respondent was conducive to her or his life satisfaction. Finally, the investigator asked each respondent about their fundamental beliefs, so as to obtain information about the cognitive styles or "mindstyles" of the individuals in the sample.

The investigator espouses the view that one's subjective well-being does not exist in isolation, but rather is complemented by the richly intricate life history of each individual. Hence, the intent of asking the respondents these open-ended questions is to obtain information and statements from the participants "themselves". It is believed that the open-ended questions are an appropriate avenue by which respondents are granted the opportunity to elaborate on particular aspects of their life situations and to disclose how these relate to their current life satisfaction.

Pilot Study

Prior to data collection, a pilot testing of the interview survey schedule was conducted. The pilot study was comprised of 14 subjects and was completed (1) to determine the order of questioning, by asking the survey questions first followed by the open-ended questions, (2) to modify MacLean's (1980) procedure into a more simplistic approach for probing into personal life events (already discussed in previous sub-heading), (3) to be consistent in elaborating on questions that were frequently asked about by the respondents, (4) to take notes while the person was talking, rather than to audiotape the interview, (5) to delete the original question, "Do you consider men and women to think differently about life satisfaction? If yes, in what ways?", and finally (6) to supplement the interview survey with the question, "What is your philosophy of life?".

Babbie (1975) contends that the order in which questions are given in an interview or survey can affect the responses given. It was initially proposed that seven of the fourteen subjects would receive the open-ended questions followed by the survey questions, while the other group of seven would be asked the survey questions first followed by the open-ended questions. The rationale for these two procedures is as follows: (1) It is important to establish rapport since older people may be skeptical of

research staff and strangers. The open-ended questions may be a conducive way of allowing for a warm and sincere rapport to take place. (2) Some individuals may want to disclose facts about their life as rapport is being established. Some questions may not be easily answered at first, because they may seem to lack a context. The problem in answering these "sensitive" questions may be rectified if the individual is given the opportunity to "warm up" to the situation and thereby perceive the situation as non-threatening one (Babbie, 1975). It was observed that the latter procedure was conducive in the establishment of good rapport.

Six of the fourteen respondents asked the investigator what was meant by the term "life satisfaction" and seven asked for a clarification of the question's context (i.e. past, present, or future evaluation of happiness or contentness). These inquiries prompted the investigator to be consistent in her replies to the respondents. After interviewing seven individuals it was realized that it would be best to take notes during and after the interview rather than to audiotape the conversation. Although precision of communication would be forfeited by the notetaking procedure, it appeared to be less threatening for the respondents. Albeit seven participants acquiesced to being audiotaped, five of these did not feel comfortable disclosing certain information and attributed this to having their conversation recorded. The question asking respondents whether they

considered the two sexes to think differently about life satisfaction was removed from the interview survey because it could not be answered by eight of the fourteen volunteers. The reasons given were that it was not known to them how the other sex thought or what would make them content. Finally, 10 of the 14 participants summarized their perception and evaluation of life satisfaction by disclosing their philosophy of life. Hence the investigator included a formal question on this topic in the interview. It was hoped that it might tap into the multidimensional nature of life satisfaction. That is, happiness is contingent on several situational and individual exigencies.

Procedure

The investigator met with elderly members of several senior centres (i.e. manors, retirement clubs, fitness classes, church groups, and bowling clubs) (1) to formally introduce herself as a Master's student in psychology, who was in the process of collecting data for her thesis, (2) to describe the purpose of her study as "what makes older adults satisfied with their current lives", (3) to outline what was asked of the elderly people (i.e. voluntary participation and approximately two hours of their time), and (4) to elicit the voluntary participation of the audience.

At the end of the presentation the investigator requested those interested to leave

their name and telephone number on a name list or to personally contact her at their own convenience; whereby the interview could either take place at the centre or at another place (e.g., respondent's home) at their discretion.

The investigator telephoned each prospective participant and an appointment time was arranged. In order to ensure that the potential respondent obtained an adequate knowledge and understanding to make an initial verbal consent about whether or not to participate, the investigator employed this procedure over the telephone or in person: (1) explained the purpose of the study, (2) employed the individual's voluntary participation and his or her right to decline participation in the study at any time, (3) stressed his or her right to refuse to answer any or all of the questions, (4) assured the person of the confidentiality of the information disclosed and anonymity of his or her own identity; respondents were ensured of confidentiality, except when asked if anecdotal statements could be recorded, (5) explained that the research was independent of service delivery (in cases where respondent was affiliated with a centre), (6) arranged to provide him or her with an abstract of the study and any other pertinent information of interest, and (7) informed him or her that once the study was completed, a presentation of the research findings would be offered by the investigator at several locations. It was emphasised that the research results were a reflection of general

group norms and did not involve elaboration on the individual participant scores.

The interview was scheduled after a verbal consent had been obtained from the respondent. Confirmation of the interview was made one day prior to the designated time by telephone. During the actual encounter, the investigator introduced herself to the respondent and, depending on the location of the interview, either asked the respondent to be seated in front of her or was invited to be seated by the older adult.

The investigator proceeded to establish a rapport with the respondent, thanked him or her for their kind consideration and stated the instructions, provided in Appendix B.

The investigator asked the close-ended questions first, and encouraged the person to read through the answer options as she posed the questions. The interviewer asked the individual to clarify or to elaborate on what was disclosed. In addition, the investigator prompted the individual whenever the need arose, and proceeded to follow through on some of the earlier comments stated. The interview survey schedule was kept on top of the desk or on the investigator's lap, to ensure an effortless visual access by the respondent. On several occasions the interview was combined with breakfast, lunch, teatime, or supper.

At the end of the interview, the investigator asked the respondent if he or she had any questions. The participant was encouraged to discuss any of his or her concerns

or to make comments. The interviewer reiterated that, once the study was completed, the respondent would receive a summary copy of the results and would be invited to attend the investigator's presentation of the research findings. Finally, the respondent was thanked for participating in the study, and the interview terminated.

Data Analysis

A cross-sectional design was employed in this study. The methodology of correlational research was utilized and was adapted to a present perspective from which to examine the phenomenon of life satisfaction in the "young-old", "middle-old", and "old-old". Eight independent variables were assessed to determine the way they predicted life satisfaction, for one period in time. The data was obtained using a retrospective technique.

The predictor variables examined in this study were: (1) level of activity, (2) social interactions, (3) social roles, (4) personal major life events, (5) socioeconomic factors, (6) perceived physical health status, (7) gender, and (8) chronological age. The outcome variable was life satisfaction.

Data analysis involved computing descriptive statistics for the predictor and outcome variables. Frequency distributions, means, modes, standard deviations, and

variance measures were calculated for each variable. The data was also analyzed using quantitative and qualitative techniques.

Four quantitative statistical analyses were used to test the twenty-five hypotheses and related issues proposed by this study. The non-directional t -test for independent samples, the one-way Analysis of Variance (ANOVA) , the correlational analysis, and the simultaneous multiple regression analysis. Qualitative analysis was employed to analyze the thematic content of the participants' responses to twenty-six open-ended questions.

The Pearson product-moment correlation was used to test hypotheses 1 to 6, 8, 9, 11 to 22, 24, and 25. Hypotheses 17 and 20 were also tested using one-way ANOVA. Multiple regression analysis was employed to test hypotheses 7, 10, and 23. Two other related issues included in the presentation of the results were: (1) non-directional t -test for mean life satisfaction scores of respondents residing in two cities, and (2) non-directional t -test for mean life satisfaction scores of participants interviewed in two settings. The two procedures aforementioned were not representative of the hypotheses examined in this study, however they provided pertinent information about two types of independent samples employed in the study.

Statistical Assumptions:

Certain tasks had to be accomplished prior to actual data analysis to ensure that the study involved a "clean" correlation matrix (Tabachnick and Fidell, 1983). These involved: (1) inspection of univariate statistics for accuracy of input; (2) checking for plausible means and dispersals; (3) checking for computation of R using the coefficient of variation (see Tabachnick and Fidell, 1983, p. 68); (4) inspecting shape of distribution for each independent variable; (5) checking for significance of Pearson moment-correlation coefficient (see Ferguson, 1976, p. 183), as StatView 512+ does not compute this statistic; (6) evaluation of data for violation of assumptions (i.e. linearity, independence, homoscedasticity, normality, multicollinearity, singularity, and suppressor variables).

Graphical residual analysis was employed to discern if any assumptions were violated. Six types of scatterplots were assessed: (1) residuals; (2) standardized residuals; (3) predicted values; (4) predicted values versus residual values of each independent variable; (5) residuals versus raw scores of independent variables; and (6) standardized residuals versus raw scores of independent variables. Random variation of the scatterplots would warrant the conclusion that there was no violation of assumptions made concerning linearity, independence, homoscedasticity, and normal-

ity. Histograms of residuals and standardized residuals were also assessed for the purpose of commenting further on the distribution of these types of residuals. In addition, the standard error of skewness was computed to determine whether or not skewness equaled 0 (see Tabachnick and Fidell, 1983, p. 79). Visual detection of outliers was employed to see if they played a role in the data analyses.

Quantitative Analyses:

1. T-Test and One-Way Analysis of Variance

The t-test is designed to reveal if there are any significant differences between mean scores of a variable for two independent samples. The one-way ANOVA procedure is used to test if there are any significant differences between the means of different populations. It assumes equal variance between two populations and pools the variance to provide an estimated standard deviation.

2. Correlational Analysis

The correlational analysis utilizes the Pearson product-moment correlation coefficient to indicate the degree to which variation in one variable is "linearly" related to the

variation evidenced in another variable. Curvilinear relationships between the variables will not be investigated in this study. A point must be made about the nature of using the Pearson coefficient for both ordinal and interval/ratio data. The Pearson product-moment correlation coefficient may be applied to ordinal data, however the Spearman rank-order correlation is a more feasible alternative when analyzing rank orderings. In a sense, the Spearman rank-order correlation is a simplification of the Pearson product-moment correlation when applied to ranked data as opposed to numerical values (McCall, 1980).

Harris (1975) espouses the view that multivariate statistical procedures can be applied to "weaker" than interval scale properties, (p. 225). He contends that the "interval scale" Pearson r is a feasible substitute of nominal or ordinal coefficients. In effect, he demonstrates that the Pearson product-moment coefficient, which is most frequently used for analyzing interval and ratio data, yields comparable numerical values for the correlations to ranked or dichotomized data. That is, it yields similar correlation coefficients when compared to the Spearman rank-order coefficient (r_s), the point biserial coefficient (r_{pb}), and the phi coefficient (ϕ) (see p. 227 for illustration). Hence, it can be safely assumed that the Pearson product-moment correlation coefficient is a feasible alternative measure of correlation for a dichotomous variable, such

as gender. For the purposes aforementioned, both the Pearson product-moment coefficient and Spearman rank-order coefficient will be computed to investigate the degree of relationship between life satisfaction and occupation, and between life satisfaction and self-perceived assessment of physical health status.

Demographics

Respondents were asked to state their major occupation in life. This socioeconomic factor proved to be a difficult one to analyze. Seven job classifications were employed for the purposes of this study: (1) professional, (2) high-level management, (3) trade and technical / clerical work, (4) semi-skilled or unskilled labour, (5) farm labour, (6) housewife, and (7) clergy. The classification of this variable can be argued to fall into two categories: nominal and ordinal. The job titles are reflective of the nature of the employment tasks involved (nominal) and are also representative of general differences found, for instance, in status and income level between members of each occupational group (ordinal). The findings analyzed by calculating the Pearson product-moment coefficient and Spearman rank-order coefficients are comparable (respectively, $r = -.10$, $p > .05$ and $r_s = .11$, $p > .05$; see Table 9). Hence, it can be safely assumed that the correlation matrix in Table 9 is accurate and representative of

both the ordinal and interval data present.

Health

Respondents were asked to assess their physical health status as being either "excellent", "good", "fair", or "poor". It can be argued that this variable falls into two categories: nominal and ordinal. The self-reported assessment of health can be argued as being a description of one's health (nominal) or an evaluation of one's physical status (ordinal). It was found that the Pearson coefficient and Spearman coefficient yielded the same correlation ($r = -.14$, $p > .05$, see Table 10). Hence, it can be assumed that the correlation matrix provided in Table 10 is accurate and representative for both the nominal and ordinal data present in the study.

3. Multiple Regression Analysis

The simultaneous multiple regression technique is designed to determine the extent, direction, and strength of the relationship between several independent variables and a continuous dependent variable (Kleinbaum and Kupper, 1978). Simultaneous multiple regression and the other statistical procedures were conducted using StatView 512+, the packaged statistical program of the Macintosh Plus computer

(Feldman and Gagnon, 1986). In the standard multiple regression procedure, each independent variable is assessed as if it had entered the regression after all the other independent variables have been entered. Each independent variable, then, can be evaluated in terms of what it adds to the prediction of the dependent variable and above the predictability afforded by all the other independent variables (Pedhauzer, 1982).

Two multiple linear regression models of life satisfaction were employed in this study. They are expressed as equations in the following manner:

Multiple Regression Model with Four Variables

$$*Y=b_0;b_1x_1+b_2x_2+b_3x_3+b_4x_4+e$$

where Y is the score on the LSI-A (outcome variable);

x_1 is the rating on the adequacy of health item;

x_2 is the number of satisfying family events;

x_3 is the score on the intimate activity subscale;

x_4 is the score on the leisure activity subscale;

e represents the individual's random error score; and

b_0, b_1, b_2, b_3, b_4 are estimates of the regression coefficients

Multiple Regression Model with Six Variables

$$*Y=b_0;b_1x_1+b_2x_2+b_3x_3+b_4x_4+b_5x_5+b_6x_6+e*$$

where Y is the score on the LSI-A (outcome variable);

x_1 is the rating on the adequacy of health item;

x_2 is the number of satisfying family events;

x_3 is the score on the solitary activity subscale;

x_4 is the type of interview setting employed;

x_5 is the score on the informal activity subscale;

x_6 is the number of dissatisfying leisure events;

e represents the individual's random error score; and

$b_0, b_1, b_2, b_3, b_4, b_5, b_6$, are estimates of the regression coefficients

*The equation for the multiple linear regression model was obtained from Freund and Minton (1979, pp. 21-4)

Some of the weaknesses concerning multiple regression analyses are: multicollinearity, singularity, and suppressor variables. These were tested for individually to ensure that they did not play a major part in the findings obtained. The variables were evaluated for multicollinearity by (1) checking to see if a large value of standard error for any regression coefficient was evident (see Tabachnick and Fidell, 1983, pp. 92-3); (2) computing the scalar value of the inverse correlation matrix (see Edwards, 1979, pp. 59-60); (3) computing the tolerance values ($1 - R^2$) (see Tabachnick and Fidell, 1983, pp. 92-3); and (4) performing multiple regression with each variable (see Tabachnick and Fidell, 1983, p. 93). Multicollinearity arises when there is an approximate linear dependence between two independent variables. Consequently, a duplication of information provided by these two variables violates the principle of parsimony in research (Gunst and Mason, 1980).

The data set was assessed for singularity as follows: (1) computing the scalar value for the inverse correlation matrix (see Edwards, 1979, pp. 59-60); (2) computing the tolerance values ($1 - R^2$) (see Tabachnick and Fidell, 1983, pp. 92-3); and (3) performing multiple regression with each variable serving as the outcome variable and all others as predictors (see Tabachnick and Fidell, 1983, p. 93). Singularity occurs when one score is a linear (or nearly linear) combination of others. Singularity does not imply high bivariate correlation, but it does suggest that there is a perfect multiple correlation between the variables in context (Tabachnick and Fidell, 1983).

The data set was also tested for suppressor variables by: (1) checking to see if the absolute value of simple correlation between the independent variable (i. e. specific levels of activity) and dependent variable (life satisfaction) is substantially smaller than the beta weight for that independent variable (see Tabachnick and Fidell, 1983, pp. 116-7) and (2) checking to see if the simple correlation and beta weight have opposite signs (see Tabachnick and Fidell, 1983, p. 117). A suppressor variable is one which is usually uncorrelated with the dependent variable (DV), however it is found to be useful in predicting the DV and it increases the multiple R^2 by virtue of its associations with other independent variables (IV) (Tabachnick and Fidell, 1983). "This suppressor variable receives its name because it 'suppresses' some variance in the other

IV's that is relevant to the prediction of the DV" (p. 116).

The results of the regression models were evaluated on several dimensions to ensure that there were no assumptions being violated or weaknesses (i.e. multicollinearity, suppressor variables, and singularity) being evidenced. It was found that none of these problems pertained to the two regression models of life satisfaction presented in the study. Visual detection for outliers ensured that, if any were present, these were to be excluded from the correlational analyses and multiple regression analysis. Exclusion of some of the outliers from the data analyses did not change the findings that were initially evidenced. Graphical residual analysis was performed and revealed no presence of any systematic trends. It was shown that a random variation of scores was a prominent feature throughout the scattergrams obtained. It can be inferred from these patterns that there was no violation of assumptions made (i.e. linearity, independence, homoscedasticity, and normality for variance). However, when the standard error of skewness was computed for the variables, in the two regression models, it was found that the distribution of raw scores were positively skewed for:

(1) adequacy of health, (2) satisfying family events, (3) dissatisfying leisure events, and (4) interview setting and that the distribution of raw scores was negatively skewed for: (1) solitary activity.

Ferguson (1976) warns that skewness in the distribution may cause distortion of the Type 1 error rate, as well as instability in estimates of regression coefficients for variables. Keppel (1982, p. 58) suggests a means of controlling for the size of Type 1 is by the selection of the significance level. He states that by setting a region of rejection of $p < .05$ and $p < .01$, the researcher is taking a calculated risk that will result, in a certain proportion of the time, in obtaining an E-value that falls between the specified regions, when the null hypothesis is actually true. Hence, the findings for these two final models will have to be interpreted with this issue in mind.

As one demographic variable, interview setting, was shown to be significantly associated with life satisfaction, the responses to this question were dummy coded in the following fashion: (1) home and (2) centre. Hence, most of the individuals were interviewed in their homes ($n = 105$), while the rest of the respondents were spoken to at a centre ($n = 15$).

The seven groups of hypotheses and the two related issues will be employed to organize the presentation of quantitative results. Each group of hypotheses will have research questions that can be viewed as subsidiary hypotheses or predictions.

Qualitative Analysis:

Twenty-six open-ended questions were included in the semi-structured interview survey. Content analysis was used to analyze the communication content of the participants' responses for each question. The researcher decided to use the "theme of communication" as the coding unit for which to base her description of the communication content. Consideration of the context unit had to be addressed so as to properly interpret the meaning of the coding unit.

Respondents were asked specific questions that pertained to both their past and current life satisfaction. The goal of this part of the study was to provide responses to the questions asked that would describe the concerns, preoccupations, attitudes, perceptions, and sentiments of the respondents.

Following Keddy and Lukan's (1985) suggestions, "an attempt was made to categorize the raw data [i.e. in this case, words and sentences] into particular groupings where main ideas emerged " (p. 37). The responses to each question were examined to generate a tentative conceptual framework. Data were then grouped according to themes expressed for each question. Once the themes were assigned to a specific category, the relative frequencies were provided with which various categories were employed in coding a communication (Crano and Brewer, 1986).

What must be emphasized is that the respondents may have had several responses for each question. That is, a person's response to the question "How would you define life satisfaction?" could entail three separate, but related, answers: (1) having good physical health, (2) being physically mobile, and (3) having a loving family and supportive friends. Hence, included in the table (i.e. Table 18) would be the number of individuals (i.e. percentage) who espoused a particular view, that was categorized as a theme. This is why the percentages supplied in the tables do not add up to 100%. In effect, the tables display the most popular responses for each question. The data provided do not exhaust the possible responses disclosed by each of the respondents. For purposes of brevity, the 50th top percentile of the most popular themes for each question will be elaborated on in the results section. The other themes for each question can be examined by looking at the actual tables in which they have been presented.

This aspect of the study is descriptive and does not address any of the hypothesis questions. However, it is functional in that it allows the reader to obtain a breadth of information on some of the themes mentioned during data collection. Certain questions and their responses, as related indirectly to the hypothesis questions, will be examined more carefully and will be elaborated on in the discussion section.

Results

QUANTITATIVE ANALYSES:

SAMPLING DIFFERENCES

Two issues need to be addressed before the results of the planned statistical analyses are presented. Firstly, a *t*-test was performed to assess whether the mean scores of the life satisfaction index for respondents residing in Halifax and Dartmouth differed significantly. The non-directional *t*-test for independent samples revealed no significant differences between mean scores on the life satisfaction variable for these two samples (see Table 3). Therefore, it can be concluded that there are no significant differences of reported life satisfaction for residents of Halifax and Dartmouth as measured by the LSI-A scale used in the study.

Secondly, a *t*-test was performed to test whether the mean scores of life satisfaction for respondents, who were either interviewed at home or at a certain centre, differed significantly. The non-directional *t*-test for independent samples revealed that there were significant differences between the mean scores on the life satisfaction index for these two samples (see Table 4). Consequently, it can be concluded that the respondents interviewed at the centre scored more highly than

Table 3

T-Test for Life Satisfaction Scores of Respondents Residing
in Two Cities

Outcome Scale	City	
	Halifax ^a	Dartmouth ^b
Life Satisfaction Index-A		
M	14.37	14.60
SD	3.04	2.77
t-Value	-.429 ns	

Note. A two-tailed t-test was employed.

^an = 67. ^bn = 53.

Table 4

T-Test for Life Satisfaction Scores of Respondents Interviewed
in Two Settings

Outcome Scale	Interview Setting	
	Home ^a	Centre ^b
Life Satisfaction Index-A		
<u>M</u>	14.25	16.07
<u>SD</u>	2.96	2.02
t-Value	-2.3*	

Note. A two-tailed t-test was employed.

^aHome (Halifax and Dartmouth), $n = 105$.

^bCentre (Spencer House, Halifax), $n = 2$.

(Senior Citizen Information Centre, Dartmouth), $n = 13$.

* $p < .02$.

those participants who were interviewed in their homes.

Descriptive Information for Study Scales

Table 5 provides the descriptive information on the scales employed in the present study. Presented are the range of scores on the scales, the mean scale score for the sample, the mode scale score for the sample, and the standard deviation of scores for each of the scales utilized.

Table 5

Descriptive Information for Study Scales

Predictor	Range	Mean	Mode	S.D.
Activity Level^a				
Leisure	2 - 10	7.04	6, 7	2.02
Religious	0 - 10	4.05	5	2.80
Intimate	0 - 10	5.13	3, 5	2.18
Solitary*	2 - 6	5.16	6	1.05
Formal*	0 - 14	5.92	3, 10	3.33
Informal*	0 - 10	5.13	3, 5	2.18
Total	11 - 40	24.47	27	5.84
Social Interactions				
Informal Score	4.8 - 28.7	13.56	12	4.21
Formal Score	0 - 26.0	8.60	6	4.32
Total Score	5.7 - 37.7	16.20	13	4.89
Household/ Scope	0 - 15	0.97	1	1.57
Household/ Frequency	0 - 450	28.50	30	46.48
<u>(table continues)</u>				

Predictor	Range	Mean	Mode	S.D.
<hr/>				
Social Interactions				
Relatives/ Scope	0 - 40	7.34	3	6.93
Relatives/ Frequency	0 - 310	38.13	0	56.89
Friends/ Scope	0 - 25	4.42	5	3.06
Friends/ Frequency	0 - 180	26.36	0	36.54
Neighbors/ Scope	0 - 1	0.94	1	0.24
Neighbors/ Frequency	0 - 30	17.52	30	13.67
Fellow workers/ Scope	0 - 10	0.17	0	1.29
Fellow workers/ Frequency	0 - 200	2.50	0	20.34
Specific Others/ Scope	0 - 75	9.50	10	9.70
Specific others/ Frequency	0 - 300	38.03	40	38.79

(table continues)

Predictor	Range	Mean	Mode	S.D.
Social Roles				
Formal	0 - 4	2.16	3	0.89
Informal	1 - 5	3.73	4	0.81
Total	1 - 9	5.89	6	1.22
Personal Life Events^b				
Work Sat./Total	0 - 42%	12.7%	10%, 15%	8.20
Fam. Sat./Total	6 - 55%	28.0%	22%	8.30
Leis. Sat./Total	6 - 52%	27.3%	20%	8.90
Work Dis./Total	0 - 23%	5.6%	0%	4.80
Fam. Dis./Total	7 - 47%	23.1%	17%	7.90
Leis. Dis./Total	0 - 15%	3.2%	0%	4.00
Work Sat. # **	0 - 12	2.98	3	2.22
Fam. Sat. # **	1 - 16	6.23	6	2.43
Leis. Sat. # **	1 - 16	6.16	5	2.63
Work Dis. # **	0 - 6	1.30	1	1.18
Fam. Dis. # **	2 - 9	4.97	4	1.55
Leis. Dis. # **	0 - 3	0.73	0	0.91
(table continues)				

Predictor	Range	Mean	Mode	S.D.
Socineconomic Variables				
Education (yrs.)	3 - 21	12.10	13	3.75
Monthly Income	400-4000	1301.09	545.00	846.61
Economic Activity	0 - 7	4.47	5	1.58
Health				
Self-Assessment of Health	1 - 4	2.05	2	0.88
Health Activity	0 - 10	3.81	2	2.93
Criterion	Range	Mean	Mode	S.D.
Life Satisfaction	7 - 19	14.48	15	2.92

Note. $N = 120$.

^a Activity level includes Activity Inventory subscales (Leisure, Religious, and Intimate) and subscales collapsed by investigator * (Solitary, Formal and Informal).

^bExploratory part of study, whereby presentation of descriptive information includes: (1) proportion of satisfying and dissatisfying events (e.g. Work Sat./Total), and (2) ** number of satisfying and dissatisfying events recalled (e.g. Work Sat. #).

Hypotheses 1: Life Satisfaction and Level of Activity

I. Level of activity is related to life satisfaction:

1. High levels of global activity involvement will be associated with high life satisfaction score.

2. Intimate activity (with friends, relatives, and neighbors) will be positively associated with life satisfaction.

3. Leisure activity (participation in solitary activities and voluntary associations) will be positively associated with life satisfaction.

4. Religious activity (church-related activities) will be positively correlated with life satisfaction.

5. Intimate activity will be more highly associated with life satisfaction than leisure activity.

6. Intimate activity will be more highly associated with life satisfaction than religious activity.

7. Intimate activity will be a better predictor than leisure activity and religious activity of life satisfaction scores.

Hypotheses 1 to 6 will be tested with correlational analyses (see Table 6).

Multiple regression will be used to test hypothesis 7 (see Tables 7 and 8, and

Appendix D).

Hypotheses 1: Life Satisfaction and Level of Activity

Two groups of data will be presented: (1) Level of activity as measured by the Activity Inventory (Cavan et al., 1949) (i.e. leisure, religious and intimate), and (2) Level of activity as measured by the Activity Inventory (Cavan et al., 1949), however this was modified with scoring of the items. As a result, three categories of activity have emerged (i.e. solitary, formal and informal). The presentation of the findings will consist of the data obtained by the first measuring procedure. The results for the second measuring procedure used will be highlighted in this section.

Table 6 shows the correlation matrix between the set of activity level predictor variables and the outcome variable. Support was found for hypothesis one. A positive relationship was observed between the total activity score and the life satisfaction of respondents ($r = .38, p < .0005$). It appears that a composite measure of overall activity level for five domains: intimate, leisure, religious, economic, and health - as measured in the present study, is significantly associated with a current assessment of one's life satisfaction.

Hypothesis two was supported. It was found that intimate activity was significantly associated with life satisfaction ($r = .28, p < .005$).

Table 6

Intercorrelations of Variables in Activity Predictor Set with
Life Satisfaction

Variables	2	3	4	5
1. Life Satisfaction	.38**	.32**	.28*	.07 ns
2. Total Activity	—	.46**	.52**	.55**
3. Intimate Activity		—	.06 ns	-.05 ns
4. Leisure Activity			—	.25*
5. Religious Activity				—

Note. All p values are one-tailed. $N = 120$.

* $p < .005$.

** $p < .0005$.

Hypothesis three was confirmed. Leisure activity (leisure pursuits, maintenance of household and participation in voluntary organizations) was positively correlated to life satisfaction ($r = .28, p < .005$).

Hypothesis four was not supported. The findings show that religious activity is not significantly associated with life satisfaction in the present study ($r = .07, p > .05$).

It was expected that the more intimate the type of activity (i.e. as measured by the degree to which one has personal interactions with significant others), the higher the life satisfaction score would be. Intimate activity was hypothesized to be more highly associated with life satisfaction than leisure activity (hypothesis five). Table 6 shows that the correlation between life satisfaction and intimate activity is .32 ($p < .0005$) and between life satisfaction and leisure activity is .28 ($p < .005$). A t -test was applied to assess if the difference between the two correlation coefficients was significant (Ferguson, 1976, pp. 184-5). Hypothesis five was not supported ($t = .35, p > .05$).

Support was observed for hypothesis six, since intimate activity was more highly associated with life satisfaction than religious activity. It is shown in Table 6 that life satisfaction and intimate activity are related ($r = .32, p < .0005$) and that

life satisfaction and religious activity are not strongly related to each other ($r = .07, p > .05$). A t -test shows that there is a significant difference between the two correlation coefficients ($t = 34.44, p < .0005$).

Hypothesis seven was tested using multiple regression analysis and was supported. Table 7 displays the partial correlations, semi-partial correlations, and Pearson product-moment correlations between the level of activity predictor variables and life satisfaction criterion variable. The standardized regression coefficients (Beta weight), R , R^2 , and adjusted R^2 . R (.41) for regression was significantly different from zero: $F(3, 116) = 7.94, p < .0001$ (see Table 8).

Two of the variables in the level of activity predictor set, that is intimate and leisure activity, contributed significantly to prediction of life satisfaction. Intimate activity accounted for 10% of the variance in life satisfaction and leisure activity explained 7% of the variance. Overall, the variables significantly predicted 15% of the unique variance in life satisfaction. The two variables in combination contributed another 2% shared variability. Altogether 17% (15% adjusted) of the variability in life satisfaction scores could be predicted by scores on these two variables (see Table 7). Of the three variables, religious activity was not a significant predictor (Appendix D).

Table 7

Multiple Regression Analysis: Partial R-Squared Values^a, Increments
in R-Squared Values^b, Correlation Coefficients, Beta Weights, and
F-Values of Activity Level for Life Satisfaction Criterion Variable

Variable	Partial R-Squared Value ^a	R-Square Change ^b	r	Beta Weight	F
Activity:					
Intimate	.10	.09	.32	.30	12.79**
Leisure	.07	.06	.28	.26	8.69*
Overall	.17	.15	(d.f. = 3, 116)		7.94**
			R ² = .17 ^c Adjusted R ² = .15 R = .41**		

Note. All p values are one-tailed. $N = 120$.

^apartial correlations. ^bsemi-partial correlations.

^cUnique variability = .15, Shared variability = .02.

* $p < .0039$. $p < .0001$. $p < .0005$.

Table 8

Analysis of Variance Table for Multiple Regression of ActivityLevel Predictor Set

SOURCE	SS	df	MS	F
Regression	172.33	3	57.44	7.94*
Residual	839.60	116	7.24	
Total	1011.93	119		

Note. * $p < .0001$, one-tailed.

Like intimate activity, informal activity is positively associated with life satisfaction ($r = .32, p < .0005$). Leisure activity and solitary activity are similarly correlated with life satisfaction ($r = .28, p < .005$). In addition, formal activity is not significantly associated with life satisfaction ($r = .13, p > .05$). This finding is comparable to the lack of a significant relationship between religious activity and life satisfaction ($r = .07, p > .05$) as earlier presented. Informal activity was not found to be more significantly related to life satisfaction than solitary activity ($t = .35, p > .05$). Informal activity was shown to be more highly associated with life satisfaction than formal activity ($t = 29.98, p < .0005$). Finally, informal activity was found to be a better predictor than solitary activity and formal activity of life satisfaction scores. Informal activity accounted for 11% of the variance and solitary activity explained for 6% of the variance found in life satisfaction scores. Overall, the variables significantly accounted for 17% (16% adjusted) of the variability in life satisfaction. Formal activity was not a significant predictor. All of these findings are comparable to those presented earlier.

When both sets of data that pertain to level of activity are viewed, there are

some similarities. For instance, intimate activity in the first set and informal activity in the second set are highly related to each other. The correlation between these two variables is .996. Multicollinearity is apparent. Hence, both variables appear to measure the same phenomenon. This is expected as the items from both of the scales have been derived from the Activity Inventory. Two other examples of multicollinearity are also evidenced. The correlation between religious activity and formal activity is .899 and between leisure activity and solitary activity is .701. It can be concluded that the two sets of measures are examining very similar types of activity. However, the findings from both sets of data are presented because one type of activity (i.e. solitary activity) seems to account for more variance in life satisfaction scores than any other type of activity. This point will be elaborated in the result section entitled, "Multiple regression model with 6 variables."

Hypotheses II: Life Satisfaction and Social Interactions / Social Roles

II. Social interactions and social roles are related to life satisfaction.

8. Informal interactions (with household members, relatives, friends, and neighbors) will be positively associated with life satisfaction.

9. Formal interactions (with fellow workers and specific people) will be positively associated with life satisfaction.

10. Scope and frequency of social interactions with friends will be a better predictor of life satisfaction scores, than scope and frequency of social interactions with household members and with relatives.

11. The greater the number of social roles the individual is involved in, the higher will be the rating of life satisfaction.

Hypotheses 8, 9, and 11 will be tested using correlational analyses (see Table 9). Hypothesis 10 will be assessed by multiple regression analysis (see Appendix E, Tables 1 and 2).

Hypotheses II: Life Satisfaction and Social Interactions / Social Roles

Table 9 shows the correlation matrix between the sets of social interactions / social roles predictor variables and life satisfaction. Hypothesis eight was supported. Informal social interaction score was significantly associated with life satisfaction score ($r = .17, p < .05$). It appears that a composite score that is produced by summing 4 types of social interactions (with household members, relatives, friends, and neighbors), as measured by the Social Lifespace Measure in the present study, is associated with life satisfaction.

Hypothesis nine was confirmed. A positive relationship was found between formal social interaction scores and life satisfaction scores ($r = .17, p < .05$). A composite score that is produced by summing 2 types of social interactions (with fellow workers and specific people), as measured by the Social Lifespace Measure in the study, is associated with a current assessment of life satisfaction.

Support was not found for hypothesis ten. No variables were statistically significant in predicting life satisfaction (see Appendix E, Table 1). The data was assessed for multicollinearity which was shown to be evident for four variables in the predictor set. Scope and frequency of social interactions with household mem-

Table 9

Intercorrelations of Variables in Social Interactions /Social Roles with Life Satisfaction

Variables	2	3	4
1. Life Satisfaction	.17*	.17*	.23***
2. Informal Interaction	—	.20**	.34****
3. Formal Interaction		—	.46****
4. Total Social Roles			—

Note. All p values are one-tailed.

$N = 120$.

* $p < .05$. ** $p < .025$. *** $p < .01$. **** $p < .0005$.

bers were highly related to each other ($r = .99, p < .0001$). Scope and frequency of social interactions with relatives were also highly associated with each other ($r = .66, p < .001$). Based on these findings the frequency of social interactions with household members and relatives was removed from the multiple regression model (see Appendix E, Table 1). However, the four remaining variables were not shown to statistically account for the variance in life satisfaction scores.

Support was observed for hypothesis 11, since a greater number of social roles was associated with high ratings of life satisfaction ($r = .23, p < .01$, see Table 9). Two types of social roles were examined in this study: informal social roles (involving household members, relatives, friends, and neighbors) and formal social roles (involving fellow workers, specific people, church members, and organization members). The results show that life satisfaction was associated with number of formal social roles ($r = .24, p < .01$), but was not related to number of informal social roles ($r = .08, p > .05$).

Hypotheses III: Life Satisfaction and Personal Major Life Events

III. Personal major life events are related to life satisfaction.

12. Recalling a high proportion of satisfying work events will be associated with a low life satisfaction score.

13. Recalling a high proportion of satisfying family events will be associated with a high life satisfaction score.

14. Recalling a high proportion of satisfying leisure events will be associated with a high life satisfaction score.

Hypotheses 12 to 14 will be tested using correlational analyses (see Table 10 and Appendix F).

Hypotheses III: Life Satisfaction and Personal Major Life Events

Table 10 shows the correlation matrix between the personal major life events predictor set and life satisfaction. According to hypothesis 12, a negative correlation was expected between the proportion of satisfying work events recalled in relation to the total number of events cited, and life satisfaction scores. Hypothesis twelve was not supported since no relationship was found between the two variables ($r = .00$, $p > .05$).

There was support for hypothesis 13. The correlation between the proportion of satisfying family events recalled and life satisfaction was $.18$ ($p < .05$).

Hypothesis 14 was confirmed. A positive relationship was found between the proportion of satisfying leisure events recalled and life satisfaction ($r = .19$, $p < .025$).

This group of hypotheses comprise an exploratory aspect of the present study. The hypotheses addressed relate to the association between the proportion of various satisfying personal major life events recalled, in relation to the total number of events cited, and assessment of current life satisfaction. However, there are

Table 10

Intercorrelations of Variables in Personal Major Life EventsPredictor Set with Life Satisfaction

Variables	2	3	4
1. Life Satisfaction	.00 ns	.18*	.19**
2. Work Sat./Total	—	-.51***	-.19**
3. Family Sat./Total		—	-.20**
4. Leis. Sat./Total			—

Note. All p values are one-tailed.

$N = 120$.

* $p < .05$. ** $p < .025$. *** $p < .0005$.

other correlational coefficients obtained that are indirectly related to this group of hypotheses (see Appendix F). As an exploratory part of the study, these findings will be presented so that improvements for the methodology can be discussed in another section.

As previously stated, the results are insignificant concerning the relationship between life satisfaction and the proportion of satisfying work events recalled ($r = .00, p > .05$, see Table 10). The findings are also insignificant regarding the relationship between life satisfaction and the proportion of dissatisfying work events recalled ($r = -.15, p > .05$, see Appendix F) and between life satisfaction and the number of both satisfying and dissatisfying work events recalled (respectively, $r = .00, p > .05$ and $r = -.12, p > .05$, see Appendix F).

Concerning family events, both proportion of satisfying family events recalled ($r = .18, p < .05$, see Table 10) and the number of satisfying family events recalled ($r = .28, p < .005$) are significantly and positively associated with life satisfaction. A t -test was performed to determine if the difference between the two correlation coefficients was significant. The number of satisfying family events was more strongly related to life satisfaction than the proportion of satisfying family events recalled

($t = 3.42, p < .001$). Hence the number of satisfying family events recalled (Fam. Sat.) appears to be more strongly associated with life satisfaction than the proportion of satisfying family events recalled (Fam.Sat./Total). In addition, the results show that the proportion of dissatisfying family events disclosed was significantly related to life satisfaction in a negative direction ($r = -.21, p < .025$, see Appendix F). However, an insignificant relationship was found between the number of dissatisfying family events recalled and life satisfaction ($r = -.05, p < .05$, see Appendix F).

Findings pertaining to leisure life events show that both the proportion of satisfying leisure events recalled ($r = .19, p < .025$, see Table 10) and the number of satisfying leisure events recalled ($r = .22, p < .01$, see Appendix F), were positively related to life satisfaction. However, there was no significant difference found between these two correlation coefficients ($t = 1.12, p > .05$). One variable is not more strongly related to life satisfaction than the other variable. It was also shown that both the proportion of dissatisfying leisure events recalled ($r = -.22, p < .01$, see Appendix F) and the number of dissatisfying leisure events recalled ($r = -.17, p < .05$) are significantly related to life satisfaction in a negative direction. A sig-

nificant difference between the two correlation coefficients was found ($t = 1.99, p < .025$), whereby the proportion of dissatisfying leisure events recalled is more strongly associated to life satisfaction than the number of dissatisfying leisure events recalled.

Hypotheses IV: Life Satisfaction and Socioeconomic Factors

IV. Socioeconomic factors examined in this study are related to life satisfaction.

15. There will be no linear relationship between level of education and overall rating of life satisfaction.

16. Monthly income will be positively associated with life satisfaction.

17. There will be no linear association between occupation and life satisfaction.

18. Adequacy of income will be positively associated with life satisfaction.

19. Economic activity (gender-specific item on financial security) will not be linearly related to life satisfaction.

Hypotheses 15 to 19 will be tested using correlational analyses (see Table 11 and Appendix G). A one-way Analysis of Variance was used to test hypothesis 17.

Hypotheses IV : Life Satisfaction and Socioeconomic Factors

Table 11 shows the correlation matrix between the socioeconomic predictor set and life satisfaction. Support was observed for hypothesis 15. The correlation ($r = .13, p > .05$) indicated that there was no significant linear relationship between level of education and assessment of current life satisfaction.

Hypothesis 16 was not confirmed. No significant linear relationship was found between monthly income and life satisfaction ($r = .02, p > .05$).

Support was observed for hypothesis 17. The findings analyzed by employing the Pearson product-moment coefficient and Spearman rank-order coefficient were comparable ($r = -.10, p > .05$, see Table 11 and $r_s = -.11, p > .05$, respectively).

There was no linear relationship between occupation and life satisfaction. Also no significant linear relationship was found between occupation, when it was dichotomized into three categories: (1) professional and high-level management ($n = 45$), (2) trade and technical ($n = 48$), and (3) other jobs ($n = 27$) - and life satisfaction ($r = .10, p > .05$; $r = -.11, p > .05$; and $r = .00, p > .05$, respectively). A one-way Analysis of Variance was performed to test for differences found between

Table 11

Intercorrelations of Variables in Socioeconomic Predictor Set
with Life Satisfaction

Variables	2	3	4	5	6
1. Life Satisfaction	.13 ns	.02 ^a ns	-.10 ns	-.06 ^a ns	.07 ns
2. Education	—	.45***	.38***	.21*	.31***
3. Monthly Income		—	.49***	.25**	.11 ns
4. Occupation			—	-.12 ns	-.01 ns
5. Adequacy of Income				—	.57***
6. Economic Activity					—

Note. Most of the p values are two-tailed. $N = 120$.

^aThese p values are one-tailed.

* $p < .05$. ** $p < .01$. *** $p < .001$.

occupation and life satisfaction. No differences were found between the means ($F(2, 119) = .84, p > .05$) (see Appendix G).

No support was found for hypothesis 18. The results show that there was no linear relationship between adequacy of income and life satisfaction ($r = -.06, p > .05$).

Hypothesis 19 was confirmed. No linear relationship was found between economic activity and life satisfaction ($r = .07, p > .05$).

Hypotheses V: Life Satisfaction and Perceived Physical Health Status

V. Perceived physical health status is related to life satisfaction.

20. Self-perceived assessment of one's physical health will be positively associated with life satisfaction.

21. Adequacy of physical health status will be positively associated with life satisfaction.

22. The score derived from a subscale on health status in the Activity Inventory will be positively related to the life satisfaction score obtained.

23. The adequacy of physical health status will be the best predictor of life satisfaction.

Hypotheses 20 to 22 will be tested using correlational analyses (see Table 12 and Appendix H). A one-way Analysis of Variance was also used to test hypothesis 20. Multiple regression analysis will be used to test hypothesis 23 (see Tables 13 to 16). The variance accounted by each of the predictor sets is presented in Table 17.

Hypotheses V: Life Satisfaction and Perceived Physical Health Status

Table 12 shows the correlation matrix between the variables of perceived physical health status and life satisfaction. No support was observed for hypothesis 20. The findings analyzed by employing the Pearson product-moment coefficient and the Spearman rank-order coefficient were comparable ($r = -.14, p > .05$, for both coefficients). There was no linear association between self-assessment of physical health status and life satisfaction. Also, no significant linear relationship was found between self-assessment of health status - when it was dichotomized into three categories: (1) excellent ($n = 37$), (2) good ($n = 46$), and (3) fair-poor ($n = 37$) - and life satisfaction ($r = .15, p > .05$; $r = -.04, p > .05$; and $r = -.12, p > .05$, respectively). A one-way Analysis of Variance was performed to test for differences found between the perceived self-assessment of health and life satisfaction. No differences were found between the means ($F(2, 119) = 1.55, p > .05$) (see Appendix H).

Support was observed for hypothesis 21, since a positive relationship was found between adequacy of health and life satisfaction ($r = .36, p < .0005$). This

Table 12

Intercorrelations of Variables in Health Predictor Set withLife Satisfaction

Variables	2	3	4
1. Life satisfaction	-.14 ns	.36**	.25*
2. Self-Assessed Health	—	.52**	-.55**
3. Perceived Adequacy of Health		—	.38**
4. Health Activity			—

Note. All p values are one-tailed. $N = 120$.

* $p < .005$. ** $p < .0005$.

was one of the highest correlations observed between a predictor variable and life satisfaction.

Hypothesis 22 was confirmed. A positive relationship was found between life satisfaction scores and scores on the health activity subscale ($r = .25, p < .005$).

Multiple Regression Models of Life Satisfaction

Support was found for hypothesis 23, since adequacy of physical health status was the best predictor of life satisfaction. Simultaneous multiple regression was employed to test this hypothesis. This type of analysis was utilized to examine the relative magnitude of the predictor variables in explaining life satisfaction and to obtain the best fitting linear equation for estimating current life satisfaction from eight sets of variables. Interaction effects were not examined.

Two models of multiple regression will be presented. The first model consists of four variables and the second includes six variables. The rationale for this is that both models appear to be feasible and display slightly different information. The first model contains two levels of activity: (1) intimate activity and (2) leisure activity. Whereas, the second model includes (1) informal activity and (2) solitary

activity. Both intimate and informal activity are comparable, however there are differences between leisure and solitary activity. Leisure activity includes both solitary activities and membership activities, while solitary activity is comprised of activities that a person does by oneself. In addition, solitary activity was measured by modifying the leisure activity subscale of the Activity Inventory (Cavan et al., 1949). Hence, caution should be used when interpreting the findings for the second model of multiple regression.

Initially, 35 variables were entered into the regression equation. These included predictor variables and demographic variables. These 35 variables accounted for 49% of the explained variance found in the life satisfaction criterion variable (adjusted $R^2 = 27\%$, $F(35, 119) = 2.27$, $p < .001$). However, not all of these variables were entered into the final regression analysis, as many were insignificant. Thus, most of these variables did not account for a large amount of variance. Two parsimonious models were obtained which included 4 variables and 6 variables.

Multiple Regression Model with 4 Variables

Table 13 displays the partial correlations, semi-partial correlations and Pearson product-moment correlations between the predictor variables and life satisfaction,

Multiple Regression Analysis: Partial R-Squared Values^a, Increments

in R-Squared Values^b, Correlation Coefficients, Beta Weights, and

F-Values of the 4 Best Predictor Variables for Life Satisfaction

Variable	Partial R-Squared Value ^a	R-Square Change ^b	r	Beta Weight	F
Health Adequacy	.11	.09	.36	.30	14.06**
Fam. Sat.	.06	.05	.28	.22	7.78*
Intimate Activity	.06	.04	.32	.22	7.15*
Leisure Activity	.06	.04	.28	.21	7.02*
Overall	.29	.22	(d.f. = 4, 115)		12.20**

*p < .001.

**p < .0003.

***p < .0001.

R² = .30^c

Adjusted R² = .27

R = .55***

Note. All p values are one-tailed. N = 120.

^apartial correlations. ^bsemi-partial correlations.

^cUnique variability = .22, Shared variability = .07 to .08.

the standardized regression coefficients (Beta weights), R , R^2 , and adjusted R^2 . $F(4, 115) = 12.20, p < .0001$ (see Table 14).

The four variables that emerged as the best predictors of life satisfaction accounted for 22% of the unique variance. These were: (1) perceived adequacy of health, explaining 11% of the variance; (2) the number of satisfying family events recalled, accounting for 6% of the variance; (3) intimate activity, predicting 6% of the variance; and (4) leisure activity, accounting for 6% of the variance. The 4 variables in combination contributed another 7% to 8% of the shared variability. Depending on the method of calculation used, the R^2 ranged from 27% (adjusted) to 30% (computer calculations for R^2). Hence, 30% (27% adjusted) of the variability in life satisfaction scores could be predicted by knowing the scores on the four predictor variables.

Multiple Regression Model with 6 Variables

Table 15 displays the partial correlations, semi-partial correlations, and Pearson product-moment correlations between the predictor variables and life satisfaction, the standardized regression coefficients (Beta weights), R , R^2 , and adjusted R^2 . F

Table 14

Analysis of Variance Table for Final Multiple Regression Model
of Life Satisfaction with 4 Variables

SOURCE	SS	df	MS	F
Regression	301.46	4	75.36	12.20*
Residual	710.47	115	6.18	
Total	1011.93	119		

Note. * $p < .0001$, one-tailed.

Table 15

Multiple Regression Analysis: Partial R-Squared Values^a, Increments
in R-Squared Values^b, Correlation Coefficients, Beta Weights, and
F-Values of the 6 Best Predictor Variables for Life Satisfaction

Variable	Partial R-Squared Value ^a	R-Square Change ^b	r	Beta Weight	F
Health Adequacy	.10	.07	.36	.28	12.75***
Fam. Sat.	.08	.06	.28	.25	10.07**
Solitary Activity	.08	.05	.28	.24	9.59**
Interview Setting	.04	.03	.22	.18	5.10*
Informal Activity	.04	.03	.32	.18	4.89*
Leis. Dis.	.04	.02	-.17	-.16	4.31*
Overall	.38	.26	(d.f. = 6, 113)		10.44****
			R ² = .36 ^c		
			Adjusted R ² = .32		
			R = .60****		

Note. All *p* values are one-tailed.

^apartial correlations. ^bsemi-partial correlations.

^cUnique variability = .26, Shared variability = .10 to .12.

p* < .05. *p* < .003. ****p* < .0005. *****p* < .0001.

(.60) for the multiple regression analysis was significantly different from zero: $F(6, 113) = 10.44, p < .0001$ (see Table 16).

The six variables that emerged as the best predictors of life satisfaction accounted for 26% of the unique variance. These were: (1) perceived adequacy of health, accounting for 10% of the variance; (2) the number of satisfying family events recalled, explaining for 8% of the variance; (3) solitary activity, predicting 8% of the variance; (4) interview setting, accounting for 4% of the variance; (5) informal activity, predicting 4% of the variance; and (6) the number of dissatisfying leisure events recalled, explaining for 4% of the variance. The variables in combination accounted for another 10 to 12% of the shared variability. Depending on the method of calculation used, the R^2 ranged from 32% (adjusted R^2) to 38% (summation of partial correlations). Altogether 38% (32% adjusted) of the variability in life satisfaction scores could be predicted by knowing the scores on the five predictor variables and considering the one demographic variable (i.e. interview setting).

The variance accounted by each of the different sets of variables used in the model is outlined in Table 17. Demographics accounted for 12% of the variance;

Table 16

Analysis of Variance Table for Final Multiple Regression Modelof Life Satisfaction with 6 Variables

SOURCE	SS	df	MS	F
Regression	360.89	6	60.15	10.44*
Residual	651.04	113	5.76	
Total	1011.93	119		

Note. * $p < .0001$, one-tailed.

Table 17

R-Squared Values for Sets of Variables in Predicting Life Satisfaction

Variable Set	R-Squared Value
Demographics ^a	.12
Social Interactions/Social Roles ^b	.12
Personal Life Events ^c	.13/.15
Health ^d	.16
Level of Activity ^e	.17

^aDemographics include: gender, age, socioeconomic variables, interview setting, employment status, and marital status.

^bSocial interactions/social roles include: all scope and frequency of social interactions and informal/formal social roles.

^cPersonal life events include: (1) proportions of events recalled pertaining to satisfying work, family, and leisure events and dissatisfying leisure events ($R^2 = .13$) and ; (2) number of events recalled pertaining to satisfying and dissatisfying work, family, and leisure events ($R^2 = .15$).

^dHealth includes: perceived self-assessment of health, adequacy of health and health activity.

^eLevel of activity: same value ($R^2 = .17$) was found for 2 sets of activity levels - (1) leisure, religious, and intimate and (2) solitary, formal, and informal.

social interactions and social roles explained 12% of the variance; personal major life events predicted 13 to 15% of the variance; health accounted for 16% of the variance; and level of activity explained 17% of the variance. These figures are inflated as they represent the variance attributed by each predictor set. However, the data provided are not representative of the unique variance provided by each predictor set. This would explain why a cumulative variance is not shown in Table 17.

Table 18 displays the correlations obtained between the study variables and life satisfaction (predictor variable). The table provides a summary of the correlational statistical findings obtained in this study.

Table 18

Correlations Between Study Variables and Life Satisfaction

Variables	r
1. Total Activity	.38****
2. Intimate Activity	.32****
3. Leisure Activity	.28***
4. Religious Activity	.07
5. Informal Interaction	.17*
6. Formal Interaction	.17*
7. Social Roles	.23**
8. Satisfying Work Events / Total	.00
9. Satisfying Family Events / Total	.18*
10. Satisfying Leisure Events / Total	.19*
11. Education	.13
12. Monthly Income	.02
13. Occupation	- .10
14. Adequacy of Income	- .06

(table continues)

15. Economic Subscale Score	.07
16. Self-Assessment of Health Status	- .14
17. Adequacy of Health Status	.36****
18. Health Subscale Score	.25***
19. Chronological Age	.14
20. Gender	.12

Note. All p values are one-tailed.

* $p < .05$. ** $p < .01$. *** $p < .005$. **** $p < .0005$.

Hypotheses VI and VII: Life Satisfaction and Gender / Age

VI. Gender is not associated with life satisfaction.

24. Gender is not linearly related to life satisfaction.

Hypothesis 24 was supported, since the correlation between gender and life satisfaction was not significant ($r = .12, p > .05$).

VII. Chronological age is not linearly related to life satisfaction.

25. Chronological age is not associated with life satisfaction.

Support was observed for hypothesis 25, since no linear relationship was found between age and life satisfaction ($r = .14, p > .05$). Also, no significant relationship was found between the three age groups and life satisfaction: (1) 60-69 years (young-old) ($r = .07, p > .05$); (2) 70-79 years (middle-old) ($r = .06, p > .05$); and (3) 80 years and over (old-old) ($r = -.03, p > .05$).

QUALITATIVE ANALYSES:

Thematic analyses were used to test the communication content of the participants' responses for each question. Answers to the 26 open-ended questions are provided in Frequency Tables 19 to 44. For purposes of brevity, the researcher will highlight the most popular themes (i.e. the upper 55th percentile of the most frequently cited responses) for each question, found in the content analysis. An exception to this arbitrary cut-off point is that when less than half the respondents maintain the same views, the most popular responses will still be presented (top 55th percentile). Verbatim quotes will be provided in the discussion section, to give flavor to some of the themes indirectly related to the stated hypotheses.

Table 19 includes responses to the question, "How would you define life satisfaction?" with the hope of inferring what situational conditions the respondents believed to be the most conducive to their psychological well-being. By far, the most popular responses were concerned with health and with having supportive significant others. Seventy percent of the respondents said that good physical health and/or good mental health was important to their subjective well-being. Also, seventy percent of the participants believed that having a loving family and supportive friends was a salient feature for happiness to occur. The next most

popular category was related to being active and maintaining life-long interests.

Almost fifty-six percent of the respondents commented that independence and spontaneity in daily living were valuable determinants of life satisfaction.

Answers to the question, "Tell me about the events or situations that make you satisfied at this time in your life?" are provided in Table 20. The aim of this question was to obtain information on the circumstances that were indicative of the respondent's current life satisfaction. Almost 63% of the participants noted that having supportive and loving significant others was valuable to their happiness. The next popular response was concerned with being actively involved in daily living (56.7%) and in possessing hobbies and interests (45%). Half of the respondents agreed that the maintenance of good health was of notable worth to their current happiness.

Conversely, answers to the question, "Tell me about those times that are less satisfying to you at this time in your life?" are supplied in Table 21. Over half of the respondents (54.2%) stated that their failing health was a dissatisfying feature of their lives. Fifty percent of the participants disclosed that the death and illness of significant others was a disconcerting reality. While forty-five percent intimated

that feeling lonely and not living in proximity of their loved ones was displeasing to them.

Table 22 (A and B) provides answers to the question, "Could you be more satisfied with your life at the present time? Explain." The researcher has analyzed the responses with the hope of gathering information on what, if anything, could promote the subjective well-being of the respondents. For those participants who indicated that their situations could be improved ($n = 52$): 77% stated that this could be possible if they had more money; 71.2% noted that they would be more satisfied if their health was better; while 57.7% disclosed that their lives could be enhanced if their significant others lived nearby (Table 22, A). Sixty-eight of the 120 respondents did not think that there was anything that could be added to their lives to make them more satisfied. Forty-four percent of the respondents expressed the view that they had a lot to be thankful for (Table 22, B).

The next two questions were related to obtaining information on the most satisfying aspect(s) (see Table 23) and the least satisfying aspect(s) (see Table 24) of the respondents' lives 10 years ago. The rationale behind these questions was to tap some of the pertinent past themes of happiness that might be similar to current

themes of life satisfaction. The assumption was that there is some continuity of the past with the present, with regards to life satisfaction. Forty-five of the forty-seven respondents who were widowed or divorced disclosed that a satisfying aspect of their lives was when their spouses were alive (see Table 23). Other less popular responses dealt with family gatherings (31.7%) and with travelling (20%). The least satisfying aspects of life 10 years ago were related to the death and/or illness of a spouse (29.2%) and to the death of relatives and friends (22.5%) (see Table 24). In addition, a quarter of the respondents felt that health problems were indicative of dissatisfying realities of life ten years ago.

Tables 25 and 26 present answers to the questions regarding the most satisfying and the least satisfying aspect(s) of life 10 years in the future. Answers to the question about future satisfying aspect(s) of life include: being alive and healthy (83.3%); being independent (70.8%); maintaining mental faculties (67.5%); having the love and support of significant others (62.5%); being mobile (52.5%); and maintaining the same lifestyle patterns and interests (45.0%). Conversely, the most popular themes reflecting what is expected to be the least satisfying aspect(s) of life in the future are: the respondents' own failing health (87.5%); dependence on

others (75.0%); the loss of mental faculties (66.7%); the loss of family and friends (62.5%); being institutionalized (50%); and feeling lonely (45%). The responses to these two questions reveal some of the respondents' hopes and preoccupations for the future.

Table 27 supplies comments to the question, "Of all the activities that you are involved in, which of these do you derive the most satisfaction from?" Over ninety percent of the respondents indicated that they obtained the most satisfaction from participating in solitary and leisure activities. The next popular category involved informal activities with significant others (74.2%). This was followed by recreational activities, such as card-playing and leisure table games (45.8%). Contrary to this, 76.7% of the respondents agreed they were not involved in any activities that they were disinterested in (see Table 28). The consensus was that they presently participated in activities in which satisfaction was derived.

The next two questions were related to gathering information on the most meaningful relationships (Table 29) and least meaningful relationships (Table 30) that respondents shared during the present time. Seventy percent of the respondents expressed that friendships were valuable; 66.7% intimated that the relation-

ship shared with their children was of notable worth; while 60.8% declared this with regards to their grandchildren and great-grandchildren. Fifty of the fifty-eight respondents married disclosed that the relationship they shared with their spouse was an exceptional one. When asked about the least significant relationships, only 8.3% of the respondents referred to associations with family members and 6.7% of the participants mentioned friends who were difficult to get along with.

Tables 31 and 32 provide responses to the questions concerned with collecting knowledge about the most meaningful relationships (see Table 31) and least meaningful relationships (see Table 32) that respondents shared in the past. Two thirds of the respondents said that the relationship they shared with their parents was most meaningful. Fifty-five percent of the participants declared that the relationships with friends and siblings were valuable. Thirty-seven of the forty-one respondents stated their relationships with their spouses were of notable worth. All of the respondents' whose children died ($n = 32$) mentioned their offspring. The least meaningful relationship of the past involved: colleagues (19.2%); employers (18.3%); relatives (16.7%); and friends (5.8%). The data presented in these two tables is illustrated for purposes of providing information about the respondents'

past social life and social relationships.

The next two questions are concerned with satisfying and dissatisfying work events. Table 33 provides responses to the question, "Could you please state for me the most satisfying work events in your life?" Over twenty-seven of the people derived satisfaction from their career and the responsibilities that went with it; one-fifth of the respondents enjoyed obtaining an education and/or being conferred and/or receiving awards, which were indirectly involved with their work life; and 20.8% of the respondents found the friendships at work to be significant. Responses to the question, "Could you please state for me the least satisfying work events in your life?", (see Table 34) were as follows: 11.7% of the respondents referred to their retirement as being a dissatisfying work-related experience; less popular categories involved difficulties with co-workers (8.3%); 6.7% of the respondents agreed that job duties, pressures associated with work, and not being in their preferred occupation were disappointing aspects of their work lives.

Tables 35 and 36 includes responses to the questions pertaining to both satisfying and dissatisfying family events. The responses to the question, "Could you please state for me the most satisfying family events in your life?" revolved around

several themes: two-thirds of the respondents mentioned their marriage; over fifty-five percent commented on the birth of their children and grandchildren. For this question there was a myriad of different responses as can be seen in Table 35.

The most popular responses to the question, "Could you please state for me the least satisfying family events in your life?" revolved around the theme of death: over sixty percent of the people mentioned the death of parents and siblings; forty percent noted the death of friends; and 46 respondents (41 who were widowed and 5 of 6 who were divorced and whose former spouses were deceased) expressed the death of their spouses was a sad reality in their lives. Over one-third of the respondents disclosed that the illness of significant loved ones was distressing to them.

Tables 37 and 38 provide responses to the questions concerning satisfying and dissatisfying leisure events. Over fifty-five percent of the people suggested that travelling was the most satisfying leisure event in their lives; this was followed by friendships (40.8%) and by hobbies and leisure pursuits (35.8%) (see Table 37). When asked to comment on the least satisfying leisure events experienced, only a few individuals supplied responses for this question. Approximately 5% of the

sample commented that a disconcerting reality was that they could no longer do what they enjoyed, while another 5% missed the camaraderie they shared with others while partaking in leisure activities/events (see Table 38).

The next set of questions were concerned with what was missed in the workplace, in family life, and in leisure life (Tables 39, 40, and 41, respectively). Over forty percent of the people interviewed stated that they missed their co-workers, while one-third of respondents did not miss anything about their work place. Almost one-quarter of the respondents missed the job responsibilities and challenges that went with their careers. Sixty percent of those interviewed commented that they missed their family members, many of which were deceased and some who lived far away. Almost one-third of the respondents missed the experience of raising families; while one-quarter missed the joy of celebrating holidays during their childhood. A little over thirty percent of the respondents missed seeing their friends, while less than twenty percent missed participating in sports-related leisure events.

Answers to the question, "Do you think that your income is adequate in meeting all of your needs? Explain." are provided in Table 42 (A and B). Eighty percent

($n=102$) of the respondents interviewed expressed the view that their income was sufficient in meeting their needs. Some of the following explanations were offered by the 102 respondents: 30.3% were content with their income as they could afford luxuries; almost one-quarter indicated that their needs had changed; over one-fifth commented that they could afford the necessities for daily living and also that their expectations about financial security were modest; and finally, almost one-fifth of the respondents disclosed that their financial situation had improved and that the outlook was more promising (see Table 42, A). Eighteen individuals interviewed were dissatisfied with their income. Two-thirds of the respondents commented that it was difficult to make ends meet, while one-third declared that they were unable to afford luxurious items (see Table 42, B).

Table 43 (A and B) includes responses to the question, "Do you think that your health enables you to do what it is that satisfies you? Explain." Ninety-three (77.5%) of the 120 individuals interviewed perceived their health to be adequate, while twenty-seven respondents (22.5%) expressed a dissatisfaction with their health status. Of those who answered "yes," forty-five believed that they were quite fortunate to maintain their health; twenty-nine had disclosed that they had come to accept their ill-health and make the best of what they had; while 19 indi-

viduals were content to remain independent, despite the many limitations that their health placed on them (see Table 43, A). Of those respondents who replied "no," fifteen noted that because of ill-health they were unable to do what pleased them in their past; six believed that their failing health slowed them down physically and that they were aware of this physiological change; another six individuals "felt" old and were disturbed by this (see Table 43, B).

Responses to the last question, "What is your philosophy of life?" are provided in Table 44. The aim of this question was to collect information on the fundamental beliefs that the respondents adhered to. This inquiry was made with the hope of inferring about the "mindstyles" or the perceived notions that guided the participants' lives. Over one-third of the respondents expressed a need to live each day to the fullest, to maximize each opportunity that was granted to them. Another third believed that activity and mobility were valuable avenues to take. Less than thirty percent of the participants disclosed that love was an essential part of daily living, while another thirty percent abided by the golden rule of "doing unto others, as done unto yourself." Approximately one-fourth of the respondents commented that daily fellowship with the Lord was of notable worth in their lives. A myriad of

responses were given for this question and can be viewed in the table shown.

Table 19

Answers to the question, "How would you define life satisfaction?"

Items	N	%
Good physical/mental health	85	70.8
Having loving family/friends	84	70.0
Being active/having interests	67	55.8
Independence and spontaneity	61	50.8
Mobility/freedom	49	40.8
Financial security	40	33.3
Feeling at peace with oneself	37	30.8
Feeling loved and wanted	30	25.0
Faith	29	24.2
Being content with oneself	28	23.3

N = 120.

Table 20

Answers to the question, "Could you tell me about the events/situations that make you satisfied at this time in your life?"

Items	N	%
Having supportive family and friends	75	62.5
Being actively involved in life	68	56.7
Maintenance of health	60	50.0
Hobbies/interests	54	45.0
Marriage	40	33.3
Travelling	36	30.0
Living in own home	34	28.3
Socializing with people of all ages	30	25.0
Fellowship with the Lord	20	16.7

N = 120.

Table 21

Answers to the question, "Could you tell me about those times that are less satisfying to you at this time in your life?"

Items	N	%
Failing physical health	65	54.2
Death and illness of loved ones/ friends	60	50.0
Loneliness	54	45.0
Not having enough money for luxuries in life	43	35.8
Having to slow down in life because of physiological changes	35	29.9
Being inactive	30	25.0
Sadness in world	15	12.5
Familial strife	10	8.3

N = 120.

Table 22-A

Answers to the question, "Could you be more satisfied with your
life at the present time? Explain." "YES "

Items	N	%
If I had more money	40	77.0
If my health was better	37	71.2
If my family/friends lived nearby	30	57.7
If my spouse was alive	21	40.4
If I was able to do more in life	13	25.0
If I could be involved with a member of the opposite sex	8	15.4

N = 52.

Table 22-B

Answers to the question, "Could you be more satisfied with your
life at the present time? Explain." "NO "

Items	N	%
I have a lot to be thankful for	30	44.1
I've accepted life's adversities	24	35.3
I have all that I need or desire	20	29.4
I have few expectations about what life can offer	10	14.7

N = 68.

Table 23

Answers to the question, "What do you think was the most satisfying aspect(s) of your life 10 years ago?"

Items	N	%
Spouse was alive	45	37.5
Family gatherings	38	31.7
Travelling	24	20.0
Raising a family	18	15.0
Working	13	10.8
Living in own home	9	7.5
More active in daily regimen	6	5.0
Retired from work	5	4.2
Birth of grandchildren	5	4.2

N = 120.

Table 24

Answers to the question, "What do you think was the least satisfying aspect(s) of your life 10 years ago?"

Items	N	%
Death/illness of spouse	35	29.2
Health problems	30	25.0
Death of relatives and friends	27	22.5
Giving up home	18	15.0
Work	10	8.3
Retirement	7	5.8
Cut in pay after retirement	4	3.3
Giving up car	3	2.5

N = 120.

Table 25

Answers to the question, "What do you think might be the most satisfying aspect(s) of your life 10 years from now?"

Items	N	%
Being alive and healthy	100	83.3
Independence	85	70.8
Maintaining mental faculties	81	67.5
Love of family and friends	75	62.5
Mobility	63	52.5
Maintaining same lifestyle/interests	54	45.0
Seeing grandchildren grow up	43	35.8
Living in own home	40	33.3
Being married	30	25.0
Socializing/Travelling	22	18.3
Death	10	8.3
Financial security	5	4.2

N = 120.

Table 26

Answers to the question, "What do you think might be the least satisfying aspect(s) of your life 10 years from now?"

Items	N	%
Illness / Failing health	105	87.5
Dependence on others	90	75.0
Losing mental faculties	80	66.7
Loss of family/friends	75	62.5
Institutionalization	60	50.0
Loneliness	54	45.0
Inactivity	43	35.8
Immobility	37	30.8
Inactive mind	12	10.0
No financial security	8	6.7
Living in troubled times	4	3.3

N = 120.

Table 27

Answers to the question, "Of all the activities that you are presently involved in, which do you derive the most satisfaction from?"

Items	N	%
Solitary activity	110	91.7
Socializing with family/friends	89	74.2
Card and table games	55	45.8
Dancing	35	29.2
Travel	30	25.0
Exercise / Sports	30	25.0
Involvement in organizations	27	22.5
Community work	18	15.0
Shopping	14	11.7
Cultural arts	10	8.3
Learning	7	5.8
Church-related activities	7	5.8
Driving	5	4.2

N = 120.

Table 28

Answers to the question, "Of all the activities that you are presently involved in, which do you derive the least satisfaction from?"

Items	N	%
Nothing	92	76.7
Not being able to see as many family/friends	18	15.0
Joining too many associations	16	13.3
Too much church work	11	9.2
Housework	9	7.5
Interacting with difficult people	5	4.2

N = 120.

Table 29

Answers to the question, "Of all the relationships that you have shared with others, which are the most meaningful to you at this time in your life"?

Items	N	%
Friends	84	70.0
Children	80	66.7
Grandchildren	73	60.8
Spouse	50	41.7
Siblings	28	23.3
Lord	20	16.7
Neighbors	19	15.8
Colleagues	13	10.8
Relatives ^a	10	8.3
Parents	6	5.0
Pets	4	3.3

N = 120.

^aAunts, uncles, cousins, and in-laws.

Table 30

Answers to the question, "Of all the relationships that you've shared with others, which do you derive the least satisfaction from at this time in your life?"

Items	N	%
Nobody	112	85.0
Family	10	8.3
Friends	8	6.7

N = 120.

Table 31

Answers to the question, "Of all the relationships that you shared with others, in the past, which were the most meaningful to you?"

Items	N	%
Parents	80	66.7
Friends	67	55.8
Siblings	66	55.0
Spouse	37	30.8
Children	32	26.7
Colleagues	16	13.3
Relatives ^a	15	12.5
Grandparents	6	5.0
Pets	5	4.2

N = 120.

^aAunts, uncles, and cousins.

Note. The individuals mentioned are all deceased.

Table 32

Answers to the question, "Of all the relationships that you shared with others, in the past, which did you derive the least satisfaction from?"

Items	N	%
Colleagues	23	19.2
Employers	22	18.3
Relatives ^a	20	16.7
Friends	7	5.8

N = 120.

^aIncludes: Parents, siblings, spouse, aunts, uncles, cousins and in-laws.

Table 33

Answers to the question, "Could you please state for me the most satisfying work events in your life?"

Items	N	%
Career and responsibilities	33	27.5
Obtaining education / Diploma / Awards	25	20.8
Friendships at work	20	16.7
Going overseas to work / Joining the services	14	11.7
Retirement	11	9.2
First job	10	8.3
Working with mentors	6	5.0

N = 120.

Table 34

Answers to the question, "Could you please state for me the least satisfying work events in your life?"

Items	N	%
Retirement	14	11.7
Difficulties with co-workers	10	8.3
Job duties	8	6.7
Pressures / Bankruptcy	8	6.7
Not being in the occupation of person's first choice	8	6.7
Travelling time to work	5	4.2

N = 120.

Table 35

Answers to the question, "Could you please state for me the most satisfying family events in your life?"

Items	N	%
Marriage	80	66.7
Birth of children	67	55.8
Birth of grandchildren	42	35.0
Holiday times / Family activities	30	25.0
Raising up children	29	24.2
Wonderful childhood experiences	26	21.7
Construction of first home	22	18.3
Marriage of children/grandchildren	18	15.0
Courtship/Wedding day/Anniversaries	15	12.5
Accomplishments of family members	13	10.8
Christian walk	11	9.2
Return of loved ones from war/V-day	10	8.3
Familial responsibilities ^a	5	4.2

N = 120. ^aIncludes: Taking care of elderly/sick parents, siblings, etc.

Table 36

Answers to the question, "Could you please state for me the least satisfying family events in your life?"

Items	N	%
Death of parents/siblings	73	60.8
Death of friends	48	40.0
Death of spouse	46	38.3
Illness of family/friends	42	35.0
Health problems	36	30.0
War-related events/Depression era ^a	36	30.0
Death of children	32	26.7
Familial strife and responsibilities	32	26.7
Loneliness	23	19.2
Not having any children	8	6.7
Placing loved ones in nursing home	7	5.8

N = 120.

^aIncludes: War-time experiences, disabilities, loss of possessions, and poor living conditions during the Depression.

Table 37

Answers to the question, "Could you please state for me the most satisfying leisure events in your life?"

Items	N	%
Travelling	67	55.8
Friendships	49	40.8
Hobbies	43	35.8
Times spent at the cottage	13	10.8
Club participation	12	10.0
Holiday celebrations	9	7.5
Community work	9	7.5
Church activities	8	6.7
Athletic activities	8	6.7
Playing instruments / Theatre-going	8	6.7

N = 120.

Table 38

Answers to the question, "Could you please state for me the least satisfying leisure events in your life?"

Items	N	%
Can't do what was enjoyed in the past	7	5.8
No companionship	7	5.8
Giving up car	3	2.5

N = 120.

Table 39

Answers to the question, "What, if anything, do you miss about your workplace?"

Items	N	%
Co-workers	50	41.7
Nothing	40	33.3
Responsibilities and challenge	29	24.2
Job duties	18	15.0
Respect from co-workers	15	12.5
Salary	14	11.7
Structured day	13	10.8
Clients/consumers	10	8.3
Actual work setting	6	5.0

N = 120.

Table 40

Answers to the question, "What, if anything, do you miss about your family life?"

Items	N	%
Family members	72	60.0
Raising family	39	32.5
Holiday celebrations as a child	30	25.0
Family gatherings	24	20.0
Peaceful world	19	15.8
Companionship	13	10.8
Nothing	10	13.8

N = 120.

Table 41

Answers to the question, "What, if anything, do you miss about your
leisure life?"

Items	N	%
Not seeing friends	37	30.8
Participating in sports	23	19.2
Nothing	20	16.7
Travelling	13	10.8
Hobbies	13	10.8
Not being as active	10	8.3
Vacationing in the country	8	6.7
Socializing and dancing	7	5.8

N = 120.

Table 42: A and B

Answers to the question, "Do you think that your income is adequate

in meeting all of your needs?"

" YES " / " NO "

Items - "YES" (A)	N	%
Can afford luxuries	31	30.3
Needs have changed	23	22.5
Can afford necessities	22	21.6
Have modest expectations	22	21.6
Things are much better now	20	19.6
Money isn't important	6	5.0

N = 102.

Items - "NO" (B)	N	%
Difficult to make ends meet	12	66.7
Can't afford luxuries	6	33.3

N = 18.

Table 43, A and B

Answers to the question, "Do you think that your health enables you to
to do what it is that satisfies you? Explain." " YES " / " NO "

Items - "YES" (A)	N	%
I'm very fortunate	45	48.4
Have learned to accept my health	29	31.2
Despite many limitations, my health still allows me to be independent	19	20.4

N = 93.

Items - "NO" (B)	N	%
Can't do the things I used to do	15	55.6
Slows me down	6	22.2
Makes me feel old	6	22.2

N = 27.

Table 44

Answers to the question, "What is your philosophy of life?"

Items	N	%
Live each day to the fullest	41	34.2
Be active and mobile	39	32.5
Love	35	29.2
Golden Rule - Help people	35	29.2
Faith / Christian walk	29	24.2
Be realistic in daily expectations	28	23.3
Count your blessings	25	20.8
Life is what you make it	23	19.2
Serenity with oneself and others	23	19.3
Work ethic	21	17.5
Take control of your own life	18	15.0
Have a positive attitude about life	15	12.5
Never give up / Determination	13	10.8
Take advantage of every opportunity	11	9.2
Live for the present	10	8.3
Don't worry needlessly	8	6.7
Honesty /Laughter - best medicine	7	5.8
N = 120.		

Discussion

The purpose of this study was to examine eight individual and lifestyle variables, and their ability to predict self-report ratings of current life satisfaction among older men and women. Discussion of the hypotheses proposed and research findings obtained, involves addressing : (1) The relationships found between the 8 predictor variables and life satisfaction; and (2) The relative contribution of each predictor variable in their ability to account for the explained variance in reported subjective well-being among the elderly respondents.

An important issue to consider is that the data in this correlational study were collected utilizing a cross-sectional face-to-face semi-structured interview. The self-report methodology provided interesting anecdotal evidence and some insight into the phenomenology of aging. However, no causal inferences can be made based on this type of methodology utilized.

Life Satisfaction and Level of Activity

Global Activity

The results of this study mainly support the central hypothesis of activity

theory in that global activity level is associated positively with life satisfaction of retired individuals living in the community. When asked to define life satisfaction many respondents suggest that being active and having interests adds immeasurably to their quality of life.

Throughout this section, several quotations from the study's participants will be used to provide the reader with further insight into aging and psychological well-being. A 66 year-old widow states, "I get involved because I have to. I do not allow life to pass me by. I made a promise to myself to be an active participant of life...so I get up and go whenever I can." Another individual who is 85 years-old, notes, "I like to get up and go whenever I can, God willing for many more years to come. It's like rolling your sleeves to clean up. Once you're in it, you're begging for more. I'll take whatever I can at this stage in my life." An 81 year-old man declares, "I don't think that I'll ever retire. The closest that I'll get to it is when I write my autobiography." These individuals all regard activity as an integral part of their lives.

Many respondents do not arbitrarily become engaged in activity, but are

selective and exercise discernment. "If I don't enjoy doing something I simply don't do it. I have no time for petty concerns in my life. I've had a whole lifetime to do things that I didn't want to do. Now I make my own happiness by pacing myself with pleasurable activities," says a 65 year-old woman. Many individuals stress that activity is very important in their lives, but the freedom to do as one pleases during this time is most rewarding. A 65 year-old man discloses, "I enjoy waking up each day and nobody telling me what to do and at what time to do it at. I can retire all day and not feel guilty about it...I never had the luxury to think this way in my past life."

However, others are pleased to be involved in few activities stating the same reasons as this 89 year-old woman when she says, "I've done so much in my life. I'm enjoying resting for a change. I've earned it and what's more, I'm having a grand time at just doing nothing." Hence, activity is very important for many individuals, but is not an exclusive key to satisfaction. There are several people who prefer to be inactive and are content with their decisions.

For the majority of respondents, activity seems to exert a positive effect on their psychological well-being. For others, activity is a preferable medium by

which to live their lives. In a few instances, some respondents have expressed the desire to be more involved in activities, but are limited by their frail physical conditions and/or by familial attitudes. A 92 year-old woman, discontented with her inactivity, intimates, "It saddens me that I am not able to do all that I can do. I'm reminded of this when my family does things for me. I used to do the dishes up until a few years ago, but now I'm not allowed. I miss doing them. You see, I used to think about a lot of things while I was washing the dishes. It relaxed me. It gets me upset that my family does them for me. But on a good day I sneak around and do them when no one is looking."

Perhaps an important issue that should be considered is an individual's ability to choose to be either engaged or disengaged in life. It appears that most of the individuals interviewed in this study are active and choose to be so. However, there are some others who have chosen to lead sedentary lifestyles and who appear content.

Intimate Activity

In general, global activity is related to life satisfaction but there are certain

types of activities that are most conducive to psychological well-being than others: chiefly intimate and leisure activities. Leisure activities and contacts with friends and family suggest "the importance of qualitative social and personal activities,..., to maintaining life satisfaction," (Ray, 1979, p. 117). Most individuals stated that being content involves having a loving family and supportive friends to share life with. Socializing with family and friends was the second most preferred social activity to be involved in with this sample group of individuals. Hence, the author agrees with Tinsley et al. (1985) in their explanation as to why personal contacts with others is so rewarding an experience. "Socializing with family and friends may fulfill the person's need to engage in playful, but supportive relationships with others in which feelings are valued," (p. 176).

A 69 year-old woman exclaims, "I have my family that love me very much. They've always been a number one priority in my life. You may not be able to count on much in life, except for the family that you were born in...I don't get to see my brothers and sisters often enough. We all have branched out. Occasionally I go to the Valley or they come and see me. We make a grand day of it whenever we meet." Another woman 81 years of age discloses, "I like having

the young ones visit me, it feels so good to have them all near me. The only sad thing is that I don't see them often enough."

Regarding contact with friends, a 75 year-old woman indicates, "I can't live without my friends. They are a vital part of me. Always have been. I enjoy having long talks with my girlfriends, sharing girl secrets. There's not much to life without your friends and family, of course." For many individuals, personal relationships with their friends and family provides an avenue for maintaining social roles and having social contact with the world, as well as being able to exchange views and opinions with significant others. However, there is also a need to interact with individuals of the opposite sex, as noted by one 67 year-old lady. "I wish that I could share my life with a man. I often go to the art galleries and am always in the presence of female friends. This is monotonous - I enjoy it, but I am tired of this. I think that I would be a lot more satisfied with my life if I shared it with a man - but this is so difficult. There are 10 men for every 90 women in the late sixties. This makes for a lot of competition. I'm hoping that things will shape up for me."

Another concern is the loss of friends and loved family members. Many indi-

viduals have outlived their friends and as a result have less opportunities to socialize with their confidants. "I miss my friends, they are no longer alive.

When one dies, I always think that my turn is just around the corner... So it's not that I don't have any friends or that I'm unfriendly. But rather that many of my friends have since passed away," remarks a 71 year-old widower.

Leisure Activity

Based upon the results of the study, solitary leisure activity and group-oriented involvement are related to life satisfaction. That is, the more extensive one's involvement in leisure activities is, the more content that individual will be. It appears that the importance of leisure endeavors is mainly due both to engaging in less intense physical activities such as reading, watching television, hobbies, listening to music / radio, writing to friends and to participating in more rigorous physical activities, such as: gardening and home maintenance. In addition, involvement in voluntary associations is beneficial to subjective well-being.

Solitary leisure activity is varied in nature and provides the individual with

several psychological benefits. According to Tinsley et al. (1985), elderly persons can experience the satisfaction of their need to do things alone without feelings of threat (comfortable solitude). In addition, solitary activities provide a forum for which older adults can express themselves with creativity and gain recognition for their efforts (expressive solitude). While still for others, participation in spectator activities may relieve them from dealing with daily pressures from others and from self.

A 67 year-old woman states, "I like to entertain myself by watching television, reading a good mystery novel, and listening to radio programming. I have no desire to go running around. I like to be still and do the things I never had much of a chance to do while I was working." A 94 year-old man intimates, "I love the peace and solitude I feel throughout the day. If someone comes to see me during the day I am gladdened by it - but if not, I enjoy my home and garden. I enjoy feeding the cat and just being by myself. I'm not afraid of being alone, it's comforting."

For many individuals, writing is a very calming and satisfying activity to partake in. An 80 year-old poet captures the serenity involved in this type of activity

when she says, "These eyes have seen so much, these hands have sheltered many a storm. I've enjoyed it all, even the sorrows. And then a magical moment comes and a little part of my life is captured on paper. I can't begin to express to you the wonderful feeling of being able to write what I felt or what I did many years ago. My books, my poems are my dear friends. I treasure them and find great solace in them."

And still for others partaking in sedentary activities is important because it gives them a feeling of inner peace. Several individuals have commented that although they are physically inactive, they are constantly reappraising their life situations and reminiscing. An 86 year-old woman discloses, "How comforting it is to know that it is all right to sit down and close your eyes. No mixed feelings about what could be done in the meanwhile, just a quiet peace to fill the gap between you and everything around you." A 91 year-old man recounts, "When I'm alone in my room and long for yesteryear, I paint the pictures of the past in my mind. Suddenly I find myself walking in the streets of Paris with my eyes fixed on its splendour. I try, as quickly as I can, to capture 'la joie de vivre' ...I am grateful that when I look at my paintings a little part of me is captured on the

canvas. It's like coming home."

As noted earlier, another leisure activity conducive to happiness is involvement in voluntary associations. Volunteering and participating in service activities enables the elderly to control their social situation, to be productive in their social milieu, and to derive enjoyment from their assistance (Tinsley et al., 1985). Many of the respondents were actively involved in several clubs and volunteer organizations. "I spent five years bed-bound because of my serious heart condition. What kept me alive was my supportive and loving family and my needle-point. I vowed to help others if I could one day get on my feet. I haven't betrayed this promise and visit people in the various hospitals around Halifax a few times a week. It's a wonderful honor to do so," comments a 77 year-old man. An 80 year-old man intimates, "I enjoy going to the Polio Clinic and encourage the people in it. I visit nursing homes because it provides me with very beautiful people, I enjoy listening to them. I'm a member of the Paraplegic Association - there's so much to do in so little time, I'm sad about not being able to do all the things that I want to do. I refuse to be a sleeper of life. I get involved because it keeps me young and going. It's for more selfish reasons than altruistic ones."

Some people are deeply committed to certain causes and are involved in helping to educate the larger masses of society. One 71 year-old woman is adamant when she says, "I've taken a stand for many things in my life. I thrive on the pressures of daily living. I've made it a point to get involved in many different organizations, like Voice of Women, Canadian Pensioners' Concern, and other peace groups. I may be in my seventies but this has not stopped me from acting on and from reacting to our times."

Conversely, some participants note that being involved in many group-oriented activities is not conducive to their psychological well-being. An 81 year-old woman comments, "I was involved in so many activities that I was beginning to feel tied down. One day I got my priorities straight and dropped 5 club memberships and 2 committees. I can afford to be choosy at my age. Too much of a good thing is just that, you can only spread yourself to a certain point. The rest is a disservice to yourself and others."

Hence, engaging in various kinds of leisure activities seems to be important in promoting psychological well-being among the elderly. However, in the future it might be feasible to assess not only the influence of the quantity of discretionary

activities an individual is involved in, but also the meaning derived from participating in various activities.

Religious Activity

While some types of social activities are related to life satisfaction, others like religious activity do not appear to be associated with subjective well-being. The religious subscale of the Activity Inventory (Cavan et al., 1949) used in the study assesses the level of activism in religious involvement (e.g., frequency in attendance of religious services and of listening to church services over the radio, and frequency in reading religious literature). It appears that this particular assessment tool is geared towards religious activism and does not encompass other less active forms of religious involvement such as devotional observance, knowledge of the Bible, or adherence to doctrine. In other words, this subscale accounts for the external nature of the activity, and does not take into consideration the meaning that an individual ascribes to the activity (Cavan et al., 1949).

The literature on religious activity in later life is replete with several conceptual limitations. Most measures tend to examine "external" religious practices (e.g.,

church attendance), rather than “internal” religious practices (e.g. prayer at home). They often fail to enlighten researchers with insight concerning the nature and significance of religious experience for individuals. This remains a contentious issue as religious affiliation is often regarded as being a source that offers meaning to life. In addition, there may be several factors that interfere with active religious involvement which are not considered when asking people about their activity participation. Lack of mobility caused by physical health limitations or by inadequate transportation may act to interfere with this kind of activity in the elderly. As mentioned earlier, the use of this subscale may be regarded as being too simplistic in nature. A feasible alternative to learning more about religious involvement and life satisfaction is to use retrospective reports of life experiences, in order to examine perceptions of daily living more thoroughly.

An 82 year-old man confides, “I don’t expect to have much in life, except to have a relationship with the Lord. This is the most important thing about living. The daily walk is a fruitful one and should be important for each person who is alive.” Another 74 year-old woman states, “I could live with almost nothing at hand, except I need the presence of God. Without it, I cease to live.” “Religion

has been a number one priority in my life for many years. I'd feel lost and very sad if I didn't have it," remarks a 68 year-old man.

Thus, although religious activity is not found to be correlated with life satisfaction in this study, there may be other patterns of religious involvement that are. It may be more fruitful in future endeavors to investigate both religious behaviours and beliefs and their contribution to life satisfaction by using more retrospective reports, rather than objective measures.

General Conclusions

Although general support was found for the Activity theory, one of the study's findings does not support a specific hypothesis explicated by Lemon et al. (1972). It was expected that involvement in more intimate types of activities would be conducive to subjective well-being, as these would provide older adults with more role supports. Indeed intimate activity is more highly associated with life satisfaction than religious activity. This supports the notion that intimate contacts with friends and family is more important in maintaining life satisfaction than church-related activities. However, it does not appear that intimate activities

are more highly associated with psychological well-being than leisure activities.

Both seem to have a positive impact on happiness as tested by the correlational analyses. Nevertheless, based on the regression analysis, intimate activity is a slightly better predictor of life satisfaction (accounts for 10% of the variance), than leisure activity (accounts for 7% of the variance).

Hence when it comes to social and leisure activities, it appears that degree of intimacy may not be the sole deciding factor that constitutes a happier existence as maintained by Lemon et al. (1972). Rather it may be that certain types of activities are beneficial to subjective well-being, as they provide psychological benefits that fulfill various needs that are socioemotional in nature and that also pertain to productive-creative expressions.

The results of this study support Havighurst and Albrecht's (1953) contentions that social activity is conducive to the psychological well-being of older adults. The more involved a person is in social activities, the higher will be that individual's current assessment of life satisfaction. However, for a few individuals disengagement from various activities and relationships also appears to be beneficial to well-being.

Congruent to other findings in the field of social gerontology, the study's results suggest that it is not random activity that is related to life satisfaction.

Rather, activities that provide a means to achieve intimacy, interpersonal integration, and mastery in late life (Osgood & Mizruchi, 1986) are found to be positively associated with happiness. In essence these are intimate activities (contacts with friends, relatives, and neighbors) and leisure activities (participation in solitary activities and voluntary associations).

Socializing with family and friends, in most instances, seems to be instrumental in providing the individual with feelings of self-worth and well-being. Engaging in sedentary and active leisure activities offers a conducive forum for self-expression, creativity, and meditation. Having these needs met allows for a positive life space that greatly adds to life satisfaction. Of the two social activity levels investigated, intimate activity is a better predictor of subjective well-being. However, degree of intimacy does not appear to be the sole impetus for life satisfaction.

Activities that involve productive-creative and socio-emotional elements seem to be related to psychological well-being. The latter finding does not support the main hypothesis of Lemon et al. 's (1972) replication of activity theory.

Finally, based on the study's results, it does not appear that religious activity is important in the determination of psychological well-being in older adults. The area of religiosity and life satisfaction in late life is plagued by conceptual limitations and methodological flaws. It is felt that the instrument used to measure religious activity was limited in its scope.

'Mutable Factors' and Implications of Research

Riddick and Daniel (1984) make the distinction between "mutable" and "immutable" factors. They define a mutable variable as a factor which is changeable as opposed to unchangeable (p. 137). Nature and/or social variables may render a factor immutable. They contend that applied research should be directed at mutable factors, as these are most amenable to change. Given that activity participation has a paramount influence on the respondent's quality of life, several implications can be drawn for the leisure and recreation profession.

Thus, one implication of this research is that social programs and services provided to the elderly should include several socialization activities (e.g., visiting with relatives and friends, bingo, dancing, and dining opportunities) as well as

those centered around productive involvements (e.g., hobbies, repair work, production of marketable goods). Lohmann (1980) reinforces the fact that policy efforts to influence social activity include senior citizen centres, dining programs, and senior companionship programs.

The investigator agrees with Riddick and Daniel (1984) when they suggest that community and institutional recreational services should be increased for older adults. They maintain that socialization of partaking in leisure activities should be reinforced from early adulthood. Finally, they argue that the importance of activity, financial management and health status should be stressed in pre-retirement education programs. They propose that these recommendations may play an important role in allowing individuals to reach optimal levels of activity.

Carp (1978-79) also contends that appropriate environmental interventions are beneficial, especially when they are able to provide more activity opportunities for individuals. Her central hypothesis is that "a provision of a living environment with more appropriate need-satisfaction potentials would affect behaviour by improving quality of adaptation and sense of well-being," (p. 76). The model

that she proposes takes into consideration the Lewinian tradition, which as stated by Carp (1978-79), views "behaviour as a function of person in interaction with environment," (p. 76).

Of clinical relevance, Mullins and Hayslip (1985-86) make recommendations for professionals in their effort to encourage elderly clients to be involved in activities related to pleasurable feelings and that meet the unique needs of each individual. They suggest that a clinician's approach to enrich day-to-day living for older adults can be organized within a paradigm which includes," (1) consistent daily routine, (2) a balance between productive, mastery-oriented pursuits and leisure, pleasurable experience, and (3) a balance between social and solitary activity," (p. 50). The investigator notes that these suggestions can be used by other clinicians in related fields, such as: leisure and recreation, nursing, social work, psychology, and adjunctive services such as occupational therapy, industrial therapy, and the like.

Recommendations for Future Research

Some recommendations for future research are warranted so that the body of

literature in this area can be extended further. Firstly, it might be beneficial to elaborate on activity theory so as to examine older adults' perceptions about the importance of various activities on life satisfaction. This could be achieved by developing measures that examine both the frequency of social participation and the quality of activity levels, as measured by activity satisfaction (Ragheb & Griffith, 1982). This approach is consistent with the phenomenological framework. In order to understand a phenomenon, information must be obtained about how people involved individually perceive it in their own social reality (Ragheb & Griffith, 1982). The investigator agrees with Russel (1985) in that we must "consider the objective circumstances surrounding the retired person, their perceptions of themselves, and these circumstances, and the socialization history of each individual," (p. 5). Content analysis seems to be a viable means in achieving this goal. If the investigator were to replicate her study she would opt to choose measures of social participation that consider both quantitative and qualitative dimensions of the activity in question.

Life Satisfaction and Social Interactions

General Findings

The study's findings show that interaction with informal and formal social networks is conducive to the psychological well-being of older adults. When asked to define life satisfaction, a majority of individuals (70%) disclosed that having a loving family and supportive friends was instrumental to their well-being. Conversely half of the respondents claimed that the least satisfying aspects of older life was the death and illness of family members and friends. When asked about the most satisfying activities they were currently involved in, nearly 75% of the study's participants intimated socializing with family and friends. Hence, it appears that having interpersonal relationships with others in later life is important in ameliorating the quality of life for the aged.

Several individuals intimated their love for people, in general, and the importance of being sociable in their current lives. A 73 year-old man says, "I love people. I'm a people person. I enjoy helping them whenever I can. I've always believed this is a simple luxury in life - to help someone and get so much joy from doing so." Another 65 year-old woman notes: "Everyday is an important day. I give my best unconditionally and I enjoy "terrorizing" people. I can't stay in for

too long a period. If I'm not seeing one friend, I'm with another friend. There's always something to do, someone to terrorize - I love to leave people with stitches [of laughter] on their sides." Hence for most people interviewed, being sociable and maintaining ties with family members and friends is an integral part of their lives and adds immeasurably to their feelings of well-being.

Formal Interactions

Being involved in formal interactions seems to be an important aspect of daily living. "I can't see myself not being involved with the women's auxiliary group, our church fellowship group, and the Salvation Army. It occupies my time, but most of all I'm doing something good for other people," declares a widowed 72 year-old woman. A 75 year-old man comments that he has always participated in some organizational group activity in his life and will continue to do so. "I can't see getting on with my years as slowing me down. I've always been involved in some sort of group or other. If it wasn't the Knights of Columbus, it was a charitable association." Many respondents, for whatever reason, have chosen to participate in formal networks and regard this to be of consequential importance

in their lives.

Although, other respondents agreed that they no longer wished to be involved in associational activities. "I used to do that all before, now I'm content to just sit and let other people do the talking. I used to enjoy being in all these associations and clubs, now I like just sitting around watching television" declares an 85 year-old man. "I was involved in so many groups that I was beginning to spread myself too thin. I didn't have enough of me for myself, let alone my family and close friends. I figure there's a time and season for everything in life. I'm thinking of just holding out on the harvest for awhile," notes a 79 year-old woman.

Informal Interactions: Family and Friends

Based upon the results of the study, informal interactions with family members and friends is associated with life satisfaction. That is, the scope and frequency of contact that a respondent has with informal social networks, within a month's period, is positively associated with current subjective well-being.

Most of the individuals who were interviewed intimated that they derived enjoyment from their family members. A 70 year-old woman expresses her

feelings about her family when she says "my family has always meant the most to me, and I wouldn't be able to live without my children and grandchildren. They've been so good to me, and I count my blessings everyday. Since my husband died, I could count on them for anything and everything." A 79 year-old man indicates, "My children either come to see me or they drive me to their homes. It breaks the monotony of everyday living. I'm happy to be still a part of their lives. I know how difficult and busy it gets raising a family. I don't get to see my brothers too often - but at least I see my children and grandchildren occasionally." A sentiment voiced by many married respondents is reflected in the disclosure made by a 65 year-old woman. "I am fortunate to have my husband with me and to be living in this new beautiful apartment. I am also lucky because three of my children live were close to me. When we get bored we go for a drive to the valley or we buy clothes at Frenchie's, and just enjoy each other's company. We are both very fortunate."

A predominant concern of many older adults is loneliness. For those individuals whose families live far away, it is more difficult to get to see each other on a regular basis. As a result many feel saddened by this loss of social opportuni-

ties. A 67 year-old woman voices her concerns when she says, "I don't see my children enough and this makes me sad. The grandchildren are growing up so fast that it's becoming difficult to keep track of all of them. But it's wonderful seeing them grow up. I look forward to each of their graduations and weddings.

Another 74 year-old woman comments, "I loved being in my family. I still do.

However, I don't see them as often now - one daughter lives in Vancouver, while the other is in Halifax. I had some very wonderful times with my husband, and I will always treasure these times... I've learned to deal with his death. It was very difficult, but I've survived."

Still for others, the loss of loving family members is a painful and vivid reality of what life is and what it used to be like. An 85 year-old woman recounts the story, "I came from a family of 14 children. My parents could not afford many things in life - but we all knew that they loved us dearly... I remember that day as if it were yesterday. I had my parents all to myself. We went for an ice-cream sundae. I still remember how much like a grown-up I felt, to be served and to be in the company of my parents. Oh, how I loved them - I miss them, even after all these years, I miss them."

Another 80 year-old woman, who has been widowed for 14 years says, "I remember so many of the wonderful times I shared with my husband. I'm grateful for these, but there just aren't enough people in my life. Most of my friends have died and this makes me so sad. It's inevitable, I know, but I miss them all so much. So it's not that I prefer my own company, it's rather that I've my own company to contend with, this and my car. Thank goodness for my car." A 72 year-old poignantly shares these sentiments, "For 10 years I took care of my ill wife, she's been put away from her misery and I've been spared. It's incomprehensible how life works - I miss her dearly and not a day goes by that I wonder what it would have been like if we were both together sitting in our respective armchairs."

It is apparent that the older adults interviewed in this study derive great pleasure from interacting with their loved ones. It appears that the spouse and adult children of older adults serve as primary sources of instrumental aid and emotional support. The loss of these interpersonal relationships, due to death and distance, seems to be a dissatisfying aspect of daily life.

Friends also seem to be vitally important to the well-being of the elderly re-

spondents. A 71 year-old woman comments, "Old friends are wonderful. I've shared so much with them, so many tribulations, so many joys, it's very gratifying having them with you after so many years." Another 72 year-old woman discloses, "I love spending time with my friend (girl talk). Being spontaneous and doing things on the spur of the moment. Going to the theatre, going for trips, spending time with my daughter, volunteering at the Grace Maternity Ward." "I still get to meet with my war buddy every week and we've done this for 35 odd years. We sit around play chess, chew the fat, play cards, and anything else that fancies us at the time. I look forward to seeing Charlie, and I'm sure he feels the same way about his buddy," remarks a 68 year-old man.

Like the loss of family members, the death of friends is a sad reality for many older adults. "It's not that I don't see my friends because I don't want to. They've all passed away. Not much sense to thinking about this everyday. But when I least expect it, I'm reminded of a friend long gone or I suddenly remember things that happened to me when I was in my twenties and with my friends... I don't let it get the best of me, but I sometimes just find myself wishing things were, well, different," intimates a 77 year-old woman.

For others, social interaction with friends are not predominant aspects of current living either because close ties with individuals have not been maintained throughout adulthood or because time schedules do not allow for this type of socializing to be possible. A 69 year-old man states, "I used to have a lot of friends, but we've drifted away from each other. I don't care to see them too much and I'm sure they feel the same way. Life's like that... you're together for a certain time then you grow up and apart from each other." An 82 year-old woman says "I wish I had more people coming to see me. It gets lonely being by yourself for too long at a time. Man is a social animal... I usually feel like a dog penned up in his dog house. It gets difficult to go out and see everyone, but not everyone has the time to visit me. So I have to depend on their schedules."

It appears that social interaction with friends is highly valued by the elderly respondents of this study and seems to be conducive to psychological well-being. Friends seem to foster life satisfaction and serve as primary sources of emotional support. However, scope and frequency of interactions with friends do not seem to be more important indicators of current life satisfaction, than scope and frequency of interactions with family members. In other words, the research

findings do not support the view shared by other field investigators in that friendships make a greater contribution to subjective well-being than do family ties. None of these types of social interactions was statistically more significant than the other in predicting life satisfaction.

There seems to be a discrepancy with regard to this finding. When the respondents were asked the open-ended question, "Of all the relationships that you have shared with others, which are the most meaningful to you at this time in your life?," 70% of them said friends, while 67% and 61% disclosed these to be children and grandchildren, respectively. Although the responses given for each social network are comparable to each other, this question taps at a qualitative dimension of social participation. The respondent is asked to comment on his perception of engaging in a relationship that is meaningful in nature.

Conversely, the Social Lifespace Measure (Cumming & Henry, 1960) seeks to examine the quantitative or descriptive aspects of social interactions with informal networks (e.g., family members and friends). It does not attempt to measure the qualitative or evaluative aspects of social interactions with informal networks. In asking which of the two types of social interactions are more condu-

cive to well-being, the investigator is no longer examining the relevancy of social networks to the life of older adults - but rather, information on the qualitative aspects of social support. However, the measure used is not equipped to provide the researcher with this type of information.

Rather than reflecting the unimportance of informal interactions with friends, the investigator argues that the study's results are more likely to result from an inadequate measurement of the qualitative aspects of social interactions. Findings in the past have shown that the perceptions that individuals have of their social relationships is more important than the number of ties and frequency of social interactions when examining life satisfaction. Yet the measure used in this study is not equipped to competently tap into the qualitative aspect of social interactions, rather just the quantitative aspects of social relationships.

Perhaps friends are more important to an individual's happiness because of the social exchanges between the parties concerned. This was alluded to in a slight fashion in the open-ended questions. However, this question does not provide us with a thorough assessment of the dynamics involved in the qualitative aspects of social interactions. Hence, there is a greater need for a more

qualitative approach to studying social network and social support patterns of older adults.

Recommendations for Future Research

The present study suggests a methodological research agenda. Better measures are needed to examine subjective assessment of social interactions among elderly populations (Ward et al., 1984). Hence, following Luben's (1987) recommendations, it might be beneficial, when assessing social interactions, to distinguish networks with friends from that of family. In addition, we should also aim our research efforts at the following issues, "identify personal needs that are met by interaction, the meaning attached to various social relationships, the extent to which social relationships can be substituted, and the circumstance under which substitution can and does occur," (Connor et al., 1979, p. 120).

Clinical Implications

The present research clearly demonstrates the importance of social interactions in determining the psychological well-being of the elderly. Programmati-

cally, this research suggests that the availability of social resources (e.g., community clubs, home-care programs, friendship programs, foster grandparents programs, etc.) should be carefully considered when planning for mental health services for the aged population. Clinicians need to become sensitive to the kinds of social interactions perceived as important to older people (Harel & Deimling, 1984). In addition, they need to find ways to help develop and reinforce patterns of both social support and social networks among older adults. The Investigator also agrees with Harel and Deimling (1984) in that mental health professionals should help their elderly clients by encouraging them to seek out and establish new relationships and to participate in more associational activities. In addition, services should be focused towards the development of mutual help and neighborhood support groups.

Life Satisfaction and Social Roles

Community-Centered and Home-Centered

The findings in this study support the enhancement hypothesis in that psychological well-being is positively associated with the quantity of roles an individual

occupies. The most satisfied respondents in the study seem to be those who are involved in many different social roles. In particular, of the two kinds of roles studied (e.g., informal and formal), formal roles (those involving specific people, church and organization members) seem to be positively associated with life satisfaction. This finding is puzzling. Why would some kinds of social roles be related to life satisfaction, while others would not?

According to Havighurst and Feigenbaum (1977-78), both community-centered and home-centered lifestyles are congruent to life satisfaction. Hence, both patterns of activity are evidenced to increase an individual's psychological well-being. Perhaps formal roles, a community-centered pattern of involvement, are related to life satisfaction because they allow for an individual to engage in activities away from the home. "People employing the community-centered style of leisure tend to be autonomous, that is 'to choose activity with purpose and regard for its function in one's personal life' and to engage in activities that have some element of novelty," (Havighurst & Feigenbaum, 1977-78, p. 279). In addition, it may be that formal roles are instrumental to this group of respondents because they are active participants and recipients of community services.

A 72 year-old man states, "I like to be in control of my life. Since my stroke, I've been involved in all kinds of organizations. I'm a jack of all trades and a keeper of none. I get my most enjoyment from the labour movement and senior citizens' advocate groups. We weren't brought up to fight for our rights - but the times have changed, and I've changed with them." Another 81 year-old woman says that she enjoys being involved in church-related activities, "I enjoy going to church and being part of the parish. This kind of collectivity makes living all the more worthwhile. I have dear friends in my Christian parishioners and I've found a great friend in God. To be a Christian is to be a fine human being. I'm glad I got saved many years ago. Now I can enjoy attending church and all of the activities related to it." A 68 year-old woman discloses, "I wouldn't have much to do with my time if I didn't go to the clubs that I'm associated with. I am a member of the Senior Citizens' Centre, Red Cross, my women's church group and bible study. I think that if I didn't have these things to go to I would be bored, but I don't have to worry about this. I get my hands involved in anything that I could and am always happy to help around if I could."

Many individuals also shared their perceptions of being involved in more

home-centered roles and activities. A 65 year-old woman states, "when I was growing up I thought of what it would be like to be a grandma. I never imagined that it could be so much fun. You see life in a different way - through the eyes of a child. I wouldn't trade it for the world." A 74 year-old woman talks of her relationship with her sister, "I have lots of friends, but one I can always count on is my sister. We have so much in common, and so much of our past has been shared. I can't imagine life without her. I may not have much left in my life, but I'm attached to my sister and to our past." "I can't think of anything more wonderful than to be married, have healthy children, grandchildren and even great-grandchildren. I thank my heavens to betsy that I have the company of my husband and family. Being involved with my family is activity enough for me. We don't need to be involved in any activity clubs, we have plenty of this at home," declares a 76 year-old married woman.

Recommendations for Future Research

Although the number of social roles seems to be indicative of the amount of social resources an individual has, it might be best to further examine the qualita-

tive aspects of an older adult's experiences with social roles. It may well be that life satisfaction is associated with the number of social roles and activities, in addition to the degree of involvement in them. The Role Count Index (Cumming & Henry, 1960) measures the range of social relationship an individual has, but does not examine the degree of social involvement. It would be preferable to explore further the social context of the individual and to consider the effect of specific role gains and losses on the psychological well-being of older adults. This could be achieved by developing valid measures of both quantitative and qualitative aspects of role involvement.

Life Satisfaction and Personal Life Events

Work Events

The results of this study partially support MacLean's (1977, 1980) lifestyle concept of personal life events. The number and proportion of satisfying and dissatisfying work events are not found to be associated with current life satisfaction. This finding does not support MacLean's (1980) contention that the more important work is regarded in an individual's life, the less positively adaptation

will be in later life. Hence, the study's finding in this domain does not support the identity crisis approach to adjustment in later life. There appears to be no relationship between life satisfaction and a person's loss of the work role. It is important to note that 108 of the total 120 respondents in this study were involved in the labour force at some time in their lives. This statistic in itself suggests that the lack of relationship between psychological well-being and the proportion of satisfying and dissatisfying events recalled is not an incidental finding. Most of the study's respondents were involved in the labour force and as such retired from their occupations at various points in their lives.

For some individuals, positive aspects of work life were related to their specific responsibilities, friendships at work, obtaining their education, and retiring. A 63 year-old woman states, "I loved work and was there for 20 years. If I had a chance now, I would like to go to work (e.g., store) but it is very difficult for a woman my age to gain employment. Mind you, I don't feel old but I am a realist. I had a wonderful time working and had some very nice office friends." Another woman who is 72 years of age makes the following statement, "The best day in my life was when I retired. I washed my last bathroom, smiled a big smile and

thanked Jesus Christ for my freedom. I've been having a wonderful time ever since. There's no looking back now for me, just straight ahead." However a 77 year-old man was happy to retire, but felt that this happened too late in his life. He remarks, "The regret I have is that I had to work all these years and can now enjoy myself after my life is nearly over. There is something wrong with the system. In Europe they retire earlier, here we retire when we are 65 years-old. It used to be 70 years in the past. What a waste. I'm glad that I'm still alive, but it would have been so good to retire when I was 55 years-old. I just didn't have the means then."

For other individuals, some dissatisfying work events were retirement, difficulties with co-workers and job duties. A 69 year-old man aptly expressed his views on retiring, "I miss the structure I used to get when I was working. The companionship, the responsibilities, and the public. I live a more sedentary life. I don't mind it, but working was a vital part of my life. It's not as exciting as it used to be 15 or 20 years ago. Another man who is 74 years-old disclosed that he missed his work friends and job duties. "I used to get a kick out of seeing my work friends and sharing ideas with them. Now I don't know where they are or if they

are still alive. I miss my job. I used to be a good accountant and I loved doing what I did. I still play with numbers, but it's not the same way now."

In general, the data indicates that recalling work events is not associated with current life satisfaction. Hence, it can be assumed that the loss of the work role is not detrimental to the well-being of individuals. Perhaps work for these persons has different connotations than for today's generation. Work has always been an essential aspect of people's lives, as it allows for the maintenance of certain standards of daily living. It may be that working as a means of obtaining wages was a strong enough impetus to work in the past. At the present time individuals are involved in the labour market for several reasons, other than financial security. Status, prestige, and identification with various occupational roles are important fringe benefits for individuals who currently have careers.

However, it is important to note that the methodology used in this study to obtain information on the proportion of satisfying work events seems to play a role in the findings obtained. It is assumed that the greater the proportion of life events in the total events listed by the individual, the more salient or important are the group of events in that person's life. However, the proportion of satisfy-

ing and dissatisfying work events recalled may just be a measure of some kinds of memories recalled. It would be best to have this methodology rigorously tested to assure that it is measuring the importance of life events and of life domains to an individual, rather than helping individuals to recall certain kinds of memories related to their work lives.

Family and Leisure Events

The study's findings do support the other two hypotheses proposed by MacLean (1980) regarding family and leisure life events. The results indicate that both the number and proportion of satisfying family and leisure life events recalled are positively associated with current life satisfaction. The study thus supports the positive approach to retirement and later life, which claims that there is a relationship between psychological well-being and participation in several recreational activities and personal relationships with family members.

Conversely, the data also indicate that the greater the proportion of dissatisfying family and leisure events recalled, the lower the life satisfaction rating. It appears that the more an individual is able to recall unhappy family and leisure

events, the lower the rating of contentment. Hence it appears that events recalled that are perceived as negative with regard to family and leisure life play a detrimental role in current subjective well-being. It might be that individuals who are able to recall more dissatisfying life events have a propensity to dwell on these and as a result are embittered by these memories. A cautionary note is called for with regards to the interpretations given in this section, as this part of the study is exploratory in nature. There is a need for further theoretical development and methodological consideration in this area.

When asked to state the most satisfying family events in life, several respondents referred to courtship and marriage, birth of children and grandchildren, raising a family, and happy childhood experiences. An 82 year-old woman remembers her family life as being a happy one and says, "Family and friends, that's what life is all about. I have so many vintage memories of when I was a little girl at Christmas time, and we would go sleigh riding. The dances and social events I attended during the War... Raising my children and grandchildren were fabulous times. I wish I could relive each memory. But at least I'm still blessed with my memory of these special times." A 63 year-old woman notes,

"there's nothing that can compare to raising and providing for a family. I am thankful of my healthy family members and this is more than I could ever ask for." "I have fond memories of my wedding day and of the birth of each of my children... Some years were lean ones, but I remember when my husband and I built this home. It was a lot of hard work, but we enjoyed every minute of it. I'm still living in it and am thankful of all the lovely times we shared in this place," intimates another 64 year-old woman.

An 86 year-old man remembers what life was like as a child when he says, "My father taught me everything about farming. He gave me his farm and I've tilled the soil all these years. This is the home I've always known. I was born here, my children and grandchildren were born and raised here, we celebrated every festival you could possibly think of here... I remember going to get maple sugar when I was young and playing fiddle with my father in the old barn, and going for my first tractor ride. I've no regrets in life, none whatsoever. Life has been so good to me."

Individuals commented that the least satisfying aspects of family life involved the death and illness of loved ones, war related events, and loneliness. A 69

year-old man expressed his sadness when he said, "There are some things that never go away. Even after all these years I am saddened by the loss of my parents and grandparents. They were beautiful people. Just because I am old doesn't mean I've forgotten the pain. I miss them very much. These things one never really gets over, you rise above it, yes, but you never get over it." A 76 year-old woman declares, "I miss my family very much. They've all moved away and I don't get to see them that much. It gets lonely and I miss them very much. They write to me a few times a year and I get to see them once a year - but there is an empty feeling when they leave. I'm fortunate to have my cat with me. At least I'm not totally alone." A 73 year-old man shares some war-related sentiments and how they affected his family life. "The war was a hard time for my family. I lost two brothers during this time and my parents were heartbroken...The depression years were very difficult ones and my family suffered a lot. We had to make do with what we had, which in those days wasn't much. It wasn't easy growing up. I never got the education I wanted because there were too many mouths to feed. I regret not having more schooling. It might have made a world of a difference."

When asked to comment on the most satisfying leisure events in life, some of the respondents noted that they enjoyed travelling, time spent with friends socializing, having hobbies, and club participation. One 73 year-old man indicated, "My wife and I had the wonderful chance to go to Hawaii, Europe, United States, and the West Indies in the last 10 years. We are making up for lost time, and we're loving every minute of it. We didn't do much travelling before, but now we're flying everywhere we can get information on... Our next trip is to the Bahamas, we're already getting packed for this." Another 68 year-old woman intimated, "I get up in the morning and I plan what I am going to do for my grandchildren... I like to work with my hands and can do a lot of things like knitting, crocheting, rugmaking, sewing, tatting. I used to sew a lot more. I really derive a lot of satisfaction from doing these things. I am in the comfort of my own home, often listen to beautiful music, sometimes watch TV with the volume turned down and do my work."

An 81 year-old woman expressed her pleasure in socializing with friends and participating in various recreational activities. "Special times are spent with friends at the cottage. I still go up to mine every summer and invite many dear

friends along. They often come and we play table games, and lawn bowling. We go on long walks and have our lemonade. We go fishing with some of the men, but the good thing is that they clean their catch. We just watch... occasionally we rent an old movie. It's grand to have the few friends left in this world, by my side, especially during the summer months." A 62 year-old man declares, "My best time of the day is when I come to the centre. I am in the company of my friends and this suits me just fine. I enjoy an occasional card game and I am teaching some people coppercraft and model shipbuilding here too. In the afternoon we get a really nice lunch at a very reasonable price. I couldn't ask for more. And then after supper, my friends and I usually go for a walk and a nice long talk."

Some individuals disclosed that they were unable to partake in recreational activities and hobbies because of their poor health. It seems that poor health tends to isolate people from the outside world and restrict leisure activities. A 90 year-old man says, "I don't get to go out very often, because my health doesn't agree with me. I spend most of my time watching TV or listening to the radio. I really look forward to company, but I don't get too much of it. It gets lonely and sometimes I get very tired of how I'm living. But you got to take the good with the

bad." Another 75 year-old man intimates, "I used to be very active in my younger days. I was involved in all kinds of sports and was an avid fisherman and hunter. Now, I can't walk long distances and I get out of breath quickly. The closest I get to participating is when I watch sports on the television. I miss those days. My son says that he will bring me fishing, but I'm still waiting for his invitation. I can't even walk down the road and get a magazine to read. Everything has got to come to me - and you know that this is not always possible." Finally, an 81 year-old woman expressed the following sentiments, "I had to give up my car, as a result of my poor vision. This displeased me immensely. I could go anywhere with it and I felt more active with it. Now I'm reduced to staying immobile. I have to depend on others to bring me places and I don't like asking people for fear of bothering them... It would have been so nice to have a car and go for a drive to Peggy's Cove or Duncan's Cove."

General Conclusions and Implications

In summary, it appears that the high recollection of certain life events, namely those involving family and leisure events, are positively associated with current

life satisfaction. However, there appears to be no relationship between the satisfying or dissatisfying proportion of work events recalled and subjective well-being. An implication of the concept of personal major life events is that it could be used to help individuals understand how they may react to retirement and later life. MacLean (1980) notes that this would be most useful in the context of pre-retirement courses given throughout the middle-age years. "Specific suggestions could be offered to individuals who have a high proportion of work-related events, so they could begin to develop some interests in the non-work aspects of their lives," (MacLean, 1980, pp. 86-7). However, for those individuals who do not regard work life as instrumental to their well-being, investments in time and energy should be made in areas of recreational activities and maintaining significant other relationships.

Recommendations for Future Research

This aspect of the study is an exploratory one, however it appears to offer a viable means by which to understand some aspects of aging. It is suggested that the methodology used in this section needs to be tested more rigorously and

to be substantiated with considerable future research. Future studies should examine and differentiate the relationship between life satisfaction in later life and both the number of events recalled and the proportion of events recalled. In addition, the assumption that the number of personal life events concerning each of the three lifespaces reflects the importance of each domain in the individual's life should also be rigorously tested for its validity. Finally, there is a need to learn more about the subjective evaluations of later life in order to acquire more information in the adjustment process. A viable means of accomplishing this is by asking respondents questions about the satisfaction or dissatisfaction of events related to work, family and leisure and then asking them how instrumental these sentiments are to their current life satisfaction. Methodological improvements in this area are needed, as the lifestyle concept of personal life events seems to be a viable factor to examine when considering life satisfaction. This is evidenced in the regression model of life satisfaction. The regression model is discussed later in this chapter.

Life Satisfaction and Socioeconomic Status

Global Overview

Contrary to most of the literature review, the results indicate that the respondents' educational and occupational statuses, as well as their monthly income, perception of income adequacy, and economic activity scores are not associated with life satisfaction. Most of these findings were expected, but it was believed that monthly income and adequacy of income would be positively related to psychological well-being. This seeming contradiction may be due in some degree to differences in expectations based on life experience (Snider, 1980; Wan, Odell & Lewis, 1982). The elderly individuals who participated in the study grew up and were socialized during a difficult political period in history. The depression and war years may have acted to affect how individuals view the world around them and how they appraise their specific situations. Within comparable income groups, the elderly may be more satisfied with their incomes than younger age groups (Atkinson, 1980).

Early in the interview process it was made apparent to the investigator that the participants did not put as great an emphasis on income and financial security as was proposed in the current literature. Income was thought to be the most

salient achieved attribute to consider in the study of well-being and emphasis was based on learning about people's perceptions of their financial situations. However, the author did not anticipate the responses that she received. Several individuals voiced their opinions about being able to enjoy their lives with little income.

Life Satisfaction and Personal Expectations

A 68 year-old man shared his sentiments about why he is so content with his present life situation. His perceptions were representative of how other older adults viewed their current situations. It seems that many individuals have modest expectations about life and tend to be happier as a result. "I don't expect much out of life...you have to understand that people my age and who are older were raised in different times altogether. As a child I remember the Great Depression and how difficult it was to eat properly. We lived in the city and so much of the food we take for granted today, like butter and sugar, was unavailable and others had to be rationed. I lived through World War II and I still remember how hard it was for everyone we knew to live during those times. They weren't the

best of times, many were bitter and hungry years...In my generation people had little strivings because life offered very little, our expectations were humble and I believe that this has carried through many of the people's lives today. We live in a very affluent society, those good ol' days have been replaced with materialistic riches - but, I've not changed with the times. I have few needs in life and even fewer expectations. I can't be disappointed, but only grateful for all that I have. I believe that I've become richer for my life experiences. Many things are indeed temporal, except the fact that I've so much to be thankful for. I can afford more than I ever thought that I could. What a bountiful joy this is for me to realize, even after all these years." Another 63 year-old woman comments, "I do not have many expectations in my life and as a result I have been let down only a few times in my life." A 76 year-old man intimates, "Take life as it is and make it the most contented that you can make it and be thankful of what you received that was beneficial." There seems to be a certain resilience to modern times that many individuals display which seems to play a role in how they view their current situation.

Some individuals disclosed that their needs have changed and therefore they

need and expect to possess fewer items. "My income is adequate. I live quite comfortably and am quite content in my investments. I can't do as much as I used to - but my needs have changed. You don't need as much money, as when you worked. Things are less formal now," notes a 63 year-old woman. A 67 year-old married man says, "My wife and I are very fortunate. As long as we can afford the bare necessities and some luxuries, like a trip to Florida, we don't need anything else." It may be that individuals perceive that their needs in life have changed and learn to adapt by expecting less and prioritizing certain needs and desires.

For others, the plight of older individuals seems to have improved. A 70 year-old man declares, "I'm so fortunate today. I remember going through some very hard times in my life. I can say that I haven't felt those hungry thirties in a long time. Everything has gotten so much better for people today, in general. This is especially the case for senior citizens. Look at all the social policies. Before we didn't have Canada Pension Plan or Disability plans, today we have this and so much more. Meals on Wheels, food vouchers, senior citizen centres, bus

passes, movie passes, special senior citizen days. We have come a long way from the times when children had to literally take care of their aging parents... I am able to care for myself and have had to sacrifice very little. Come to think of it, we are quite a lucky lot of people." An 81 year-old man states, "I'm making more money now, then I ever did before." A 72 year-old man remarks, "I'm living in seventh heaven, these days." And still for others, money is not important commodity. "We are blessed and fortunate enough to realize that money is not our god," notes an 80 year-old man. It seems apparent that people's perceptions and value judgements play an important role in the relationship between life satisfaction and socioeconomic status. It does not suffice to ask individuals if they perceive their income to be adequate in meeting their needs. Rather, the expectations and rationalizations that they offer may be more fruitful avenues to consider in future research endeavors.

However, there are some individuals who define life satisfaction as being financially secure. Many others have stated that it is difficult for them to live a comfortable lifestyle and to afford luxurious items and activities. A 64 year-old woman voices her concerns, "I wish that I could afford more things. It's not easy

to make ends meet. I find myself juggling my pennies after I've paid the rent, medication, and bus fare. This leaves me with little money for grocery-shopping and nice clothes. I make do with what I have, but more would be so much better." Another man comments, "I have most of the things I need in life, but more would be better. I've struggled all of my life and I was hoping that things would become easier for me. But I still have to keep a tight belt and I have to be selective in whatever I buy. I wish I had a more carefree lifestyle when it comes to spending money."

The reality of the situation for some people is that they have very little money and this puts a strain on daily living. A 63 year-old woman indicated, "If I had more money I would be able to take trips more often. It's too bad they cost so much. It's even getting hard to buy a good steak these days. I find myself saving up for something at a time. I couldn't get two things. It's a choice and decision you have to make."

General Conclusions and Research Recommendations

The data suggest that socioeconomic status is not related to life satisfaction.

The general lack of impact that income and adequacy of income has on psychological well-being may be due in part to cohort generational effects and differences in expectations based on life experiences. It is suggested that the generational effects of various periods of history may influence the expectations older adults have about their lives. Given these findings, it might be fruitful for future research to investigate perceptions of income adequacy and life expectations. In addition, the concept of relative deprivation and its association with life satisfaction may be another profitable avenue to examine.

Life Satisfaction and Physical Health

Global Overview

Most of the findings are congruent with evidence in the literature that self-perceptions of physical health (e.g., adequacy of physical health) are associated with life satisfaction and that good health has a strong effect on the psychological well-being of the aged. Hence, an individual's physical health status is a very important component of being satisfied with life and enjoying its diversities. This finding was evidenced in the multiple regression model of the present study. A

discussion of this model will be presented later in this chapter. For many individuals, good physical health enables them to be more involved in life and to spend less time ruminating about aches and pains that would ordinarily detract people from being content in life.

Importance of Health to Life Satisfaction

Several individuals indicated how important good physical health was to them and how fortunate they felt to have few physical limitations. A 75 year-old woman states, "Without my health I can't do anything. This is a very important aspect of my daily contentness with life. Once my health goes, my morale will go with it and then the end won't be so far away. I owe a lot of how I feel about my life to my state of health. I just hope I'll be preserved for a few years longer."

Another 65 year-old woman believes, "If you don't have your health you don't have anything. I'm still thankful for my health, even though I may not walk all that easily. There are good days and there are bad days. You take the good with the bad and make the best of it." An 83 year-old man intimates, "When I was younger I used to take my health for granted, now I wish I had more stamina and

an ounce of strength that I had in the past. Ill health has a way of creeping up on you. I can't do the things that I used to do in my younger days. Once the health goes, a lot of other things go with it."

Self-Perceptions of Health Adequacy and Life Satisfaction

Several of the respondents believe that good physical health plays an important role with their global life satisfaction. Nearly half (48.4%) the individuals interviewed stated that their health was adequate in allowing them to be involved in various important endeavors in life. Still, others resolved to accept the limitations of their physical health (31.2%) and to make the very best of what they had. These individuals were able to maintain their independence by being mobile, despite some setbacks pertaining to their physical disabilities.

A plausible explanation for the positive association between life satisfaction and self-perceptions of health adequacy can be provided by the reference group theory (Kemper, 1968), which posits that several types of reference groups (e.g., family members and significant others, age peers that one uses to compare

himself/herself with, and audience group) can act to influence an individual's behaviour, attitudes, values, and beliefs (McPherson, 1983). Hence, the elderly as a group may compare themselves to their age peers and base their perceptions on relative deprivation. That is, if an individual has several friends who have poor health and he is able to do more than they are, he might have the propensity to perceive his health status as being adequate in meeting most of his daily needs. The investigator also agrees with Tornstam's (1975) views that the elderly, as a group, are realistic in their health expectations and are thankful to have some of their mobility and functional health intact.

Several individuals realized that their health deteriorated, but viewed their physical limitations in realistic terms. They tended to accept their poor health and were grateful to live long lives. A 90 year-old woman said, "Well, I am 90 years-old and I've learned to accept this slowing down of my body as a result of my age - but I have learned to compensate in life. I can't do what I used to be able to do. I'm slower and seem to be getting even more so - but I live each day as it comes. I can't do it any other way... each day brings its surprises and with each passing day I realize my limitations and strengths. I'm strong enough to realize that my

body has changed for the worse. I'm not able to do the things I used to or think in the way I remember thinking. This is reality, but I try to make the best of what I got. In this way I am quite comfortable. A 69 year-old man comments, "My health is good, but aging is a compromise. I realize this and have not put so much pressure on myself. I take all that I possibly can from each day that passes me by." While an 85 year-old women declares, "I can't complain about my health however, there are days that I feel old - when the arthritis and rheumatism is all over my body. But, I don't let this stop me. I still do the things that I like to do best."

However, nearly one third of the older individuals interviewed perceived their physical health to be inadequate in meeting their needs for contentment. The response given referred to statements where individuals were unable to do things that they enjoyed doing. Some were slowed down considerably in activity level and were less independent, while still others perceived themselves as feeling older than their actual chronological ages. An 83 year-old man says, "I can hardly do anything. I wasn't expecting to get a stroke when I was 80. If you don't have your health, a lot is lost." An 86 year-old woman states, "I can't hear

or see properly anymore, so I am not able to enjoy very much these days. I do not like to go out for fear that I will get hurt or fall. My son takes me out once a week and I am happy he is still able to do this." While an 81 year-old man intimates, "I just drift along. I used to be able to do so many things - and now I can't do many activities, except play cards and see my friends. Skating, long walks and fishing have all become a thing of the past." "There are days that I feel I can take the world by storm, and then there are other days that I'm too pooped to even try. I can't do the things I used to do, and as a result I have to slow down. I don't want to, but if I don't then I'll pay for it later," declares a 74 year-old woman. While a 62 year-old woman states, "Some days my arthritis flares up and I feel really old. There's not much I can do. This is the problem. I have to pace myself. I guess that's what people mean when they say 'aging signs'. There's a will to do things, but sometimes it's not worth the effort because it's too painful or stressful. I say let bygones be bygones. I've got to make do the best of whatever health is left in me these days."

Self-Labeling of Health Status and Life Satisfaction

However, an anomaly was evidenced when respondents were asked to rate their health as being "excellent", "good", "fair", or "poor". Surprisingly, the findings indicate that there is no relationship between the rating of one's health and the rating of current life satisfaction. An individual who describes his health as being "excellent" is not apt to be content with his/her life. While another person who describes his/her physical health as "poor" may not necessarily be discontented with his/her current life. It is difficult to explain these discrepant findings. Perhaps, the individual who has rated their health "excellent" does not regard this as a blessing because they may have other priorities and preoccupations in their life such as companionship, socioeconomic stability, the support of family members, as well as taking care of loved ones in poor health.

One individual, who is 82 years-old, was discontent with his wife's physical health and viewed this as negatively affecting his life satisfaction. "I worry about my wife's physical health, her emotional well-being and it is draining on me mentally and financially. I want her to live with me. But this is not possible. I am greatly saddened by all of this." An 80 year-old woman says, "I'm limited by my husband's ill-health, this makes everyday living difficult. But, we've learned to

take each day as it comes." A 72 year-old woman intimated, "My son has had three heart attacks, and I worry about him all of the time. I think a woman my age should be getting these problems not a man in his forties... I call him every-day to see if I can help him. It's a torment to see your children go through so much physical agony." While a 78 year-old woman sadly remembers nursing her daughter through a very difficult illness, "I nursed my daughter when she had cancer. It was heartbreaking... I've never known such pain before in my life. It's worn me down terribly. I doubt I'll ever recover from this. I never thought this to happen to my family. It's a terrible sadness."

And still, for the individual who describes her health as "poor" and is content with her life, she may regard this as a normal process of aging and may therefore legitimize her physical symptoms as "aging pains". If this is the case, she may not expect very much in life with regards to her health and might be most thankful for her remaining functional health status.

Health Subscale Score and Life Satisfaction Score

The data indicate that there is a positive relationship between scores on the

health subscale of the Activity Inventory (Cavan et al., 1949) and the scores obtained on the Life Satisfaction Index-A (Neugarten et al., 1961). Hence, the findings support the premise by Cavan and associates (1949), that physical problems are debilitating and may act to limit an individual from participating in recreational activities and routines of daily living. An individual who is experiencing some physical problems is usually less mobile and may become dependent on significant others and support services. Although the individual is being cared for, there remains the realization that he/she can no longer care for oneself independently. This can be most distressing for a person who has been self-sufficient throughout life, and can play a role in decreasing the individual's morale.

General Conclusions and Future Recommendations

The findings in this study show that there is a positive and robust relationship between some factors of perceived physical health status and life satisfaction in the elderly. Self-perceptions of health adequacy and the scores derived from the health subscale of the Activity Inventory (Cavan et al., 1949) are associated with subjective well-being. However, self-labeling of physical health (e.g., "excellent

health" versus "poor health") is not related to psychological well-being. The data suggest that the self perception that one's health will enable them to be involved in various satisfying avenues, is most conducive to being content in life. The self-perceptions and attitudes of individuals on health matters are of importance when considering current happiness in life. However, simply describing one's physical health as being "excellent," "good," "fair," or "poor" does not appear to be related to life satisfaction. These findings suggest that perceptions of functional health are important issues to consider when examining the relationship between life satisfaction and health. Adequacy of functional health appears to represent mobility, independence, and contentness for the elderly respondents interviewed.

One point to consider is that the respondents of the study had several debilitating health conditions (see Table 2), but most were mobile and relatively independent. In realistic terms, it is very difficult to obtain a sample of elderly individuals, living in the community, to be experiencing severe health problems. The main reasons that these individuals would reside in a community are that they are relatively independent or under the care of family members. Hence, the

health of the respondents in this study is not truly representative of the chronically-ill elderly and the aged as a group, but is most indicative of the lifestyle of those individuals living in the community. The healthy and autonomous nature of the sample chosen may be acting to facilitate the interrelationship found between life satisfaction and physical health status (Ray, 1979).

Another issue to consider is that although health is associated with life satisfaction, there are several intervening variables that play a role in this relationship. As shown by several researchers, these factors include satisfaction with health status, coping styles, and various personality variables. The linear relationship examined, in this study, between life satisfaction and perceived health status is simplistic in its approach. While the results found in this study support the findings of other social scientists in the field, the investigator realizes that these are unidimensional in scope. It would therefore be judicious to examine "the degree to which other variables mediate and/or condition the effects of health on life satisfaction," (George & Landerman, 1984, p. 152). In addition, it might be helpful to have more longitudinal studies employed to clarify the relation of causality between life satisfaction and physical health.

Life Satisfaction and Gender

Global Overview

The results in this study do reveal a consistent pattern of no sex differences that are in accordance with the findings of other research investigating the effects of gender on the psychological well-being of older adults. In general, an individual's sex appears to have no influence on the life satisfaction of older adults.

Liang (1982) concludes, "It seems plausible that the same causal mechanism is operating among the males as well as the females in accounting for life satisfaction" (p. 107).

When asked if there were any differences between men and women with regards to their life satisfaction an 82 year-old man responded by saying, "I don't know what the world is coming to. Things were so different when I was growing up. Men and women each had a place in society. Today everyone wants to be number one. I don't know who is happy. Everyone is looking for inner peace. Men and women today are similar in many ways. Maybe they always were, but it was less obvious in the good ol' days... I can't say one person is happier than the

next unless I know about him or her. But, it seems to me that both are happy and that they make their happiness." Agreeing with him is a 76 year-old woman, "Men and women both need love and care. I don't think they need different things to make them happy. Companionship and friends are very important."

Other respondents believed that sex differences are evident and that women tend to be more content with their current lives. A 62 year-old woman declares, "Men and women think differently. Women are more nurturing and need to be shown that they are loved; men are less expressive, but still need lots of affection. A 65 year-old man says, "Men are less accepting of the retirement process than women are and often have a more difficult time adapting to this new phase in life." A 71 year-old woman offers this explanation, "I think that women are more content than men because they usually have more of a positive attitude in life. A woman my age has been through many things in life, often including the death of her husband and sometimes her children. You're never the same after this - but you learn how to survive... Women usually involved in a lot of activities and often keep touch with friends. This and many other reasons makes me

think, that in general, women are happier than men are in this society."

General Conclusions

The findings in the study suggest that there seems to be little differences in life experiences between the two sexes to warrant one gender being more content than the other. One problem with this interpretation is that the research being employed is cross-sectional in nature. It is difficult to know whether the magnitude of gender differences has increased or decreased with age (Atchley, 1976). In addition, the current investigation looked at the main effects of sex on morale. It did not seek to investigate the first order interaction effects of gender and other variables such as SES, health, and level of activity. It is indeed possible that there are higher order sex interaction effects (Liang, 1982).

Recommendations for Future Research

It is suggested that future research should be longitudinal in nature so as to learn more about the process of aging and its effect on several different variables. In addition, future studies on male-female comparisons should control for

variables such as age, marital status, education, income adequacy, and self-reported health (Atchley, 1976). This practice would help investigators to know, with more accuracy, whether there are any main effects between sex and life satisfaction. Finally, it would be helpful if future research considered the plausibility of first order interaction effects between sex and several variables. This would help to ascertain if there are any causal mechanisms operating among men and women that account for life satisfaction throughout life.

Life Satisfaction and Chronological Age

Global Overview

The findings suggest that aging in late life is not related to life satisfaction. In other words, psychological well-being does not seem to increase or decrease with advanced chronological age. Hence, the results in this study are in accordance with the findings of social scientists who espouse the view that life satisfaction is not associated with age (Edwards & Klemmack, 1973; Palmore & Kivett, 1977; Spreitzer & Snyder, 1974).

An 85 year-old woman says, "When you look at me, you see an old woman

with wrinkled skin and a slumped posture, someone who looks like they've seen the worst of what life has to offer. But I am who I always was. In this little heart of mine I am a young woman, with great aspirations, with the same desires and needs that you have. Don't let my appearance deceive you. I can't turn back the hands of time - but, I feel what I have always felt, in the same intensity,...I may move more slowly and get frustrated - but, I'm still the same person that I was several years ago." Several respondents felt that their lives did not change by turning 65 years of age. A positive attitude about their lives, for many individuals, seems to be more important than actual age.

Another individual states that age is not as important for successful daily living as others deem it to be. Rather, what dictates whether an individual will be happy or not is what that person chooses to do in life. A 68 year-old woman states, "I don't let my age stop me from doing anything, what stops me is my will. Sometimes it's the six inches between my two ears. Nature has to take its course - but, it certainly doesn't steer my life."

However, some respondents did not feel that old age was conducive to subjective well-being. While they were cognizant of the fact that longevity was often

romanticized by the media, they did not espouse the view, "you're not getting older, you're getting better." A 67 year-old woman captured the feelings of several individuals when she said, "Whoever said, 'come grow old with me, the best is yet to be,' was a crock. No one can deny that the best years of their lives has passed them by. All this hype of people being the happiest in their sixties or seventies is nonsense. You make do with whatever you have, whenever you have it. I got to settle down after 67 years. I can't change this, I'll just try to make the best of it, but life was grander before."

And still other individuals were unsure what kind of role age has played on their ability to be content with life. A 72 year-old man indicates, "I don't know what my age should feel like. I'm glad to be alive and to do the things that I like to do. I don't know if my age has anything to do with how happy or how sad I am. I live every day, and that's it. I won't go looking for reasons why things are the way that they are."

General Conclusions and Future Recommendations

The findings in this study indicate that there is no relationship between life

satisfaction scores and advancing age. However, due to the cross-sectional nature of this study it is not known whether psychological well-being is a stable trait throughout life or whether it increases or decreases with advancing age. Future research work should be longitudinal and multi-wave in nature and include broader samples in order to learn more about the ongoing relationship between subjective well-being and chronological age.

In addition, the linear relationship examined between life satisfaction and age reflects the belief of the unidimensional aspects of elderly subjective well-being. As the past literature has shown, there are several multidimensional factors that seem to contribute to the life satisfaction of the aged. The findings appear to be too simplistic and do not consider the influence that other factors have on each other, and ultimately on global happiness. Hence, for future investigations, "what is required are research designs which allow us to separate effects of cohort change, age, and the specific social context of aging," (Ward, 1979, p. 17).

Another point to consider is that, in general, life satisfaction measures seem to be insensitive to age differences. Several investigators (Allen & Jeries 1984; Cutler, 1979; Herzog & Rodgers, 1981) have shown, with the aid of more sophis-

ticated modes of statistical analyses (e.g., item-removed alpha analysis), that the use of global measures of life satisfaction are quite efficient at hiding important variations in the underlying dimensions of life satisfaction. Allen & Jeries (1984) argue that the current strategy in the development of life satisfaction measures is the common belief that these measures should not be biased towards age differences. "If the life satisfaction domain consists of dimensions whose contributions to life satisfaction change across age as well, to include items which tap only the constant dimensions produces a flawed and distorted measure of questionable accuracy," (pp. 14-15). Hence, methodological improvements must be made so that researchers will be able to understand and appreciate both the complexity of aging in our society and the intricacies involved between lifestyle factors and life satisfaction.

Models of Life Satisfaction

Two models of life satisfaction were obtained in this study. The first model consists of 4 variables and accounts for a range of 27% to 30% of the variance found in life satisfaction scores. These variables include: (1) perceived adequacy of health, (2) the number of satisfying family events recalled, (3) intimate activity, and (4) leisure activity. The second model is comprised of 6 variables

and, depending on the method of calculation used, predicts 32% to 38% of the variability found in life satisfaction scores. The variables in this model include: (1) adequacy of health, (2) the number of satisfying family events recalled, (3) solitary activity, (4) interview setting, (5) informal activity, (6) and the number of dissatisfying leisure events recalled.

The results of the two models of life satisfaction are congruent with evidence in the literature indicating that self-perception of health and involvement in some kinds of social activities (e.g., intimate and recreational) are principal contributions to the psychological well-being of older adults. The findings also suggest that some personal major events influence quality of daily living. That is, leisure time spent in certain discretionary activities is an important determinant of life satisfaction and those individuals who recalled experiencing several pleasant family events (e.g., marriage, birth of children) were most content with their lives.

In addition to this information supplied, a second model of life satisfaction explaining for more variance, indicates that passive types of leisure activity (e.g., solitary involvement such as reading, writing) and individuals who recalled experiencing few dissatisfying leisure events (e.g., no companionship, giving up car)

are most content with their lives. Finally, this latter model shows that age-homogenous environments (e.g., housing complexes for elderly) appear to be conducive to life satisfaction. This environment may provide its residents with more opportunities for social integration with age peers (Barresi, Ferraro, & Hobe, 1983-84; Carp, 1978-9; Ward, 1979) and offer other potential benefits including, "greater sociability, mutual assistance, group norms, and a positive reference group," (Ward, 1979, p. 344).

In summary, the findings of the second model of regression, suggest that older adults who are satisfied with their life : (1) rated their health to be adequate in meeting their needs; (2) were engaged in both solitary and informal activities; (3) experienced several satisfying family events and few dissatisfying leisure events; and (4) resided in senior housing complexes.

In essence, both models of life satisfaction suggest that adequacy of physical health, intimate activity, some recreational activities, and recalling several satisfying family experiences are the strongest predictors of life satisfaction. In addition, the second model proposed shows that an environmental factor and recalling few dissatisfying leisure events are also conducive to psychological well-

being. A major difference between the two models is that they highlight slightly different levels of social activity. The first model shows that leisure activity (e.g., group-involvement and solitary activities) is a strong predictor of life satisfaction, while the second model shows that solitary activity, and not organizational activity (e.g., club memberships), is a better predictor of subjective well-being in the elderly. It must be reiterated that the scores for the solitary activity subscale were slightly modified by the investigator, hence the results proposed by the second model of life satisfaction should be viewed with certain limitations (e.g., possible violation of psychometric qualities of leisure subscale of the Activity Inventory (Cavan et al., 1949). However, because of the latter findings, the relationship between solitary activity and life satisfaction should be closely examined in future studies.

It is apparent, from the two parsimonious models obtained, that not all sets of predictor variables examined in this study account significantly for the variance found in life satisfaction. For instance, predictor sets such as age, gender, socio-economic factors, social interactions, and social roles are not included in the final models of life satisfaction. Instead, the promising predictor sets are health (e.g.,

adequacy of health); level of activity (e.g., leisure or solitary activity and intimate or informal activity); and personal major life events (e.g., number of satisfying family events recalled and the number of dissatisfying leisure events recalled). It will be recalled that the latter predictor set was an exploratory aspect of the present study. A significant incidental finding is that interview setting, a demographic variable, plays a significant role in explaining for the variance found in life satisfaction. It can be concluded from this finding that respondents who both lived and were interviewed in the senior citizens' centre scored more highly on the LSI-A, than those individuals who resided in their own homes and who were interviewed in this setting.

Summary of Study Findings

The life satisfaction approach to daily living seeks to explain why individuals with diverse lifestyles and values can successfully adapt to aging. This investigation addresses the general question, "Under what conditions of individual and social life is the older adult most likely to make a successful adjustment to aging?" More specifically, "To what extent is life satisfaction (e.g., global happiness with life) of elderly individuals, who are residing in the community, related to level of activity, social interactions and social roles, personal major life events, socio-

economic factors, perceived physical health status, gender, and chronological age?"

Data for the correlational study was collected utilizing a cross-sectional face-to-face semi-structured interview. The research also featured qualitative anecdotal data to assist in the interpretation of the findings. The participants in the study were 60 men and 60 women volunteers in three age groups: young-old (60-69 years), middle-old (70-79 years), and old-old (80 years and over). The data was analyzed using descriptive, correlational and multivariate techniques.

The findings show that there are no significant differences in life satisfaction among residents living in Halifax and Dartmouth. The data indicate, that the respondents who are interviewed at a centre, as opposed to their homes, appear to be more content with their lives as measured by the Life Satisfaction Index-A (LSI-A) (Neugarten, Havighurst, & Tobin, 1961). However, this finding should be cautiously interpreted. While 105 of the respondents were interviewed in their own homes, 15 participants were interviewed in a senior citizen centre. More research efforts should be expended in finding out whether there are significant

differences in the perceptions of daily living between people living in their own homes and those individuals living in age-segregated environments.

The major findings that pertain to level of activity and life satisfaction show that global activity level is associated with life satisfaction. Specifically, the more active the individual is, the higher is the current assessment of subjective well-being. The results show that there are two kinds of activity that are positively associated with life satisfaction: intimate and leisure or solitary activity. These hypotheses are confirmed and add credence to the Activity theory (developed by Havighurst & Albrecht, 1953). The differences between the two latter levels of activity is that leisure activity includes both active and sedentary recreational pursuits, while solitary activity denotes favorite pastime pursuits, such as reading and writing to friends. Of these two levels of activity, solitary activity when it is included with several other predictor variables in a model, explains for a larger variance of life satisfaction (32%-38%) than leisure activity (27%-30%). However, religious activity is not found to be related to life satisfaction. Hence, there are particular kinds of activity that contribute to psychological well-being. However, the results only partially support the notion that certain types of activity are

differentially related to life satisfaction (Lemon, Bengston, & Peterson, 1976). It was expected that the more intimate the type of activity, the higher the life satisfaction score would be. Intimate activity was not found to be more associated with life satisfaction than leisure activity. However, intimate activity was shown to be more related to life satisfaction than religious activity. Finally, it was noted that both intimate activity and leisure activity contributed significantly to the prediction of life satisfaction. Of the two activity levels, intimate activity was a better predictor and accounted for 10% of the variance, while leisure activity accounted for 7% of the variance.

The findings show that two types of social interactions are positively associated with life satisfaction. That is, as measured by the Social Litespace Measure (Cumming & Henry, 1961), both the scope and frequency rate of separate contacts the respondent has concerning informal and formal interactions is positively related to subjective well-being. Informal interactions consist of discrete contacts with household members, relatives, friends, and neighbors. Formal interactions are those separate meetings with fellow workers and specific others (e.g., organization members, church members, bus drivers, etc.). Hence, the

respondents who are most satisfied with their lives seem to interact with a greater number of individuals from both formal and informal social circles. In addition, it appears that the frequency of social interactions with these individuals is positively related to current life satisfaction. What must be noted is that the Social Litespace Measure is a composite measure that takes into account both the scope of contact and the frequency of contact for informal and formal social interactions. The results do not support the proposition that a more intimate type of social interaction (e.g., informal) is a better predictor of life satisfaction than formal social interactions. The findings do not show there to be differences in type of social interactions in their relation to subjective well-being.

There is a positive relationship found between life satisfaction and the number of social roles that an individual is involved in. Both formal and informal social roles were investigated. However, of the two types of social roles examined in this study, formal social roles are found to be positively associated with life satisfaction. The greater number of formal social roles that he or she is involved in, the higher the propensity for that person to be content in life. Hence the number of social roles that an individual maintains can be regarded as an estimate of

their social resources. Nevertheless, there appears to be a type of social role that is most related to high levels of psychological well-being.

The notion of the lifestyle concept of personal major life events was addressed in the study. The number and proportion of satisfying and dissatisfying work events recalled was not found to be associated with current life satisfaction. The findings do not support MacLean's (1980) view that the more important work is regarded in the life of an individual, the less positively the person will approach retirement. However, the results indicate that both the number and proportion of satisfying family and leisure events recalled by the respondents are positively related to life satisfaction. Hence, the findings support the view that the greater the importance of the family and leisure events to the individual, the more positively the person will react to retirement because it will provide more time for the pursuit of family and leisure activities. The findings also show that the greater the proportion of dissatisfying family events disclosed by the respondent, the lower is the life satisfaction score for that individual. Another significant incidental finding suggests that the same phenomenon is occurring with regards to leisure events in the individual's life. That is, the greater the number and propor-

tions of dissatisfying leisure events recalled by the individual, the lower the life satisfaction rating. The methodology for this aspect of the study needs to be further developed and vigorously tested. However, it appears to be a viable means of obtaining information about an individual's lifestyle patterns.

Achieved attributes of an individual concerning the relationship between socioeconomic factors and life satisfaction were examined in this study. The factors studied included both actual financial resources and perceived financial resources: education, actual monthly income, job classification, perceived adequacy of income, and economic activity. The results indicate that there is no significant linear relationship between life satisfaction and any of the socioeconomic factors. No relationship was expected between life satisfaction and education, between life satisfaction and job classification, and between life satisfaction and economic activity. Hence the hypotheses for these factors were confirmed. However two unexpected findings indicate that both objective economic sources (e.g., monthly income) and subjective economic sources (e.g., perception of having adequate financial resources) are not associated with global life satisfaction. Thus, income and perception of adequate income are not seen to be impor-

tant correlates of life satisfaction for the sample of individuals used in this study.

In addition, psychological well-being is not influenced by years of formal education, former occupation or economic activity. The latter variable is a measure that assesses the individual's perception of the impact of his or her financial security upon activity.

The investigation also examined the relationship between life satisfaction and perceived physical health status. Respondents were asked two related questions: (1) to rate their health as being "excellent", "good", "fair", or "poor"; and (2) to report whether or not their health was adequate in allowing for them to do the things that they enjoyed. The findings show that there is no association found between the rating of one's health and the rating of current life satisfaction. Hence, respondents who rated their physical health being "excellent" were not necessarily content with their lives. Conversely, those individuals who assessed their health to be "poor" did not appear more discontented with their lives, as a group. However, a positive relationship was found between life satisfaction and adequacy of health. That is, the individuals who believed that their health was adequate in meeting their needs and desires were more satisfied with their lives,

than those who answered "no" to the question of health adequacy. Most importantly, adequacy of health was shown to be the predominant correlate of life satisfaction. The participants were also asked a set of questions that assessed their functional health in relation to the overall level of activity that they participated in. Hence, low scores on this measure indicate that physical problems may be limiting activity, while high scores denote that the individual is not experiencing physical problems that act to restrict his or her level of activity. The data show that there is a positive relationship between functional health and life satisfaction. This implies that respondents who report to have serious physical problems, persistent physical difficulties, and related physical conditions are less content with their current lives.

No gender differences were found in relation to life satisfaction. The null hypothesis was thus confirmed. The data also indicate that chronological age is not related to psychological well-being. It was found that respondents at various ages were both content or discontent with their lives. Life satisfaction, as measured by the LSI-A, is not representative of a particular age group or gender.

Two models of life satisfaction were obtained in this study. The first model

consisted of 4 variables (e.g., perceived adequacy of health, number of satisfying family events recalled, intimate activity, and leisure activity) and accounted for a range of 27% to 30% of the variance found in life satisfaction scores, while the second model was comprised of 6 variables (e.g., perceived adequacy of health, number of satisfying family events recalled, solitary activity, interview setting, informal activity, and the number of dissatisfying leisure events recalled) and predicted 32% to 38% of the variability in life satisfaction scores.

Life Satisfaction Research and Social Policy

As clinicians and researchers we have a social obligation to contribute to the physical and psychological well-being of individuals. Hence, just as preventive medicine has worked to ameliorate and prolong the physical state of people, preventive psychology may be instrumental in promoting and maintaining an equilibrium between both physical and psychological states, as well as to influence the quality of life assessments of the individual (Palys & Little, 1980).

If part of the onus for social reform is on social scientists and practitioners, why is there such a discrepancy in application found between the recommenda-

tions cited in studies and social policy? Lohmann (1980) argues that the development of aging policy has been impeded by the methodological limitations in gerontology. She indicates that research findings are less influential than might be desired because: (1) factors often investigated are not easily manipulated through policy. For instance, marital status may be positively associated with life satisfaction, but there is very little that can be done in this domain; (2) the focus of the research, up until a few years ago (i.e. Markides & Martin, 1979), obtained was correlational data rather than developing causal models. By focusing on causal relationships, we will be able to discern which variables are critical in producing life satisfaction and which variables play subsidiary roles; and finally (3) contradictory findings in the field render the translation of such works into social policy inert, at best. Lohmann (1980) contends that a plausible root for this constraint may be found in the measurement and methodological limitations, rather than the population differences. "Using measures that are less valid or reliable than they should be has produced a mass of contradictory findings with regard to life satisfaction which defies translation into policy prescriptions," (p. 37). She is of the opinion that these problems may be remedied by developing

measures that have construct validity and which have been developed on samples that reflect the myriad characteristics of the aged population.

Despite these limitations, major age-related policies have emerged in recent years to meet the needs of a growing proportion of older persons in our population. Several social programs and public policies have been formulized and these pertain to health care and mental health services, housing facilities, supplementary income grants, flexible retirement programs, employment opportunities, community services, support for families and caregivers, educational opportunities, and advocacy in decision-making endeavors (Nusberg, Gibson & Peace, 1984). However, not all of these programs and policies have been implemented in mainstream society. There are several shortcomings within the federal and provincial systems, which act to slow down advances in favor of need-targeted social programs (Neugarten, 1982).

Nursberg et al. (1984) highlight some of the programs and policy options for the aged that appear to have great social utility; (1) supplemental income, (2) inexpensive health services and reduction in cost of prescription drugs, (3) the development of geriatric medecine and short-term geriatric treatment and reha-

bilitation centres, (4) formation of interdisciplinary assessment teams to diagnose the health conditions and social situations of older adults, (5) community-based agencies and support programs for family caregivers, (6) in-home services to help maintain older adults in their own homes, (7) cost-effective and interaction-oriented housing complexes for senior citizens, (8) flexible retirement plans, (9) education services directed at improved self-care and self-actualization, (10) pre-retirement planning workshops, (11) non-profit organizations that help to disseminate information about the aging process and that services older adults in the community, and (12) development of research centers on aging and the focus of literature on issues pertaining to later life - to name a few already in existence.

Concluding Remarks

What does it feel like to be a senior citizen? This is a very difficult question to answer. There is no such thing as a typical individual who has turned sixty-five years of age and who can be categorized in a systematic fashion. Perhaps, the fact that the person is an individual can help us understand the intricacies of the riddle in question. As individuals we each ascribe to very specific realities that

make daily living a unique experience. However, there is a commonality that we as individuals all share. We share our existence with others , either through our own volition or by circumstances that are deemed to be beyond our control. The respondents who were interviewed each shared a particular segment of their lives with the investigator. The experience proved to be a most enriching one that has immeasurably added to the existence of this young, impressionable researcher. The present research project provided the investigator with an opportunity to learn more about later life and its vast, intricately-woven fabrics as seen through the eyes of 120 very special individuals. Perhaps the phenomenology of daily living and aging involves learning to see the world in a novel way, and to appreciate the subtle nuances that make us each unique and yet bind us together as social beings.

References

- Adams, D. (1971). Correlates of life satisfaction among the elderly. The Gerontologist, 11 (1), 64-68.
- Adler, A. (1937). What life should mean to you. New York: Blue Ribbon.
- Allan, C., & Brotman, L. (Compilers). (1981). Chartbook on aging in America. 1981 White House Conference on Aging. Washington, D.C.
- Allen, C. M., & Jeries, N. A. (1984, November). The roots of life satisfaction among elderly women: Differences between the young-old and old-old. Paper presented at the 37th Annual Meeting of the Gerontological Society of America, San Antonio, Texas.
- Aiston, J., & Dudley, C. (1973). Age, occupation, and life satisfaction. The Gerontologist, 13 (1), 58-61.
- Argyle, M., & Beit-Hallahmi, B. (1975). The social psychology of religion. Boston: Routledge and Kegan Paul.
- Atchley, R. C. (1976). The sociology of retirement. Cambridge, Massachusetts: Schenkman Publishing.
- Atchley, R. C. (1976). Selected social and psychological differences between men and women in later life. Journal of Gerontology, 31 (2), 204-211.
- Atchley, R. C. (1980). The social forces in later life (3rd ed.). Belmont, California: Wadsworth Publishing Company.
- Atkinso . (1980). Public perceptions on the quality of life. In Perspectives Canada III (pp. 277-292). Ottawa: Minister of Supply and Services Canada.
- Babbie, E. R. (1975). The practice of social research (2nd ed.). California: Wadsworth Publishing Company.

- Back, K. W. (1976). Personal characteristics and social behavior: Theory and method. In R. H. Binstock & E. Shanas (Eds.), Handbook of aging and the social sciences (pp. 403-431). New York: Van Nostrand Reinhold Company.
- Barfield, R., & Morgan, J. (1978). Trends in satisfaction with retirement. The Gerontologist, 18 (1), 19-23.
- Barresi, C. M., Ferraro, K. F., & Hobe, L. L. (1983-84). Environmental satisfaction, sociality, and well-being among urban elderly. International Journal of Aging and Human Development, 18 (4), 277-293.
- Barrow, G. M., & Smith, P. A. (1983). Aging, the individual, and society (2nd ed.). St. Paul, Minnesota: West Publishing Company.
- Baruch, G. K. & Barnett, R. (1986). Role quality, multiple role involvement, and psychological well-being in midlife women. Journal of Personality and Social Psychology, 51 (3), 578-585.
- Baur, P. A., & Okun, M. A. (1983). Stability of life satisfaction in late life. The Gerontologist, 23 (3), 261-265.
- Beck, S. H. (1982). Adjustment to and satisfaction with retirement. Journal of Gerontology, 37 (5), 616-624.
- Beck, S. H., & Page, J. W. (1986, November). Involvement in activities and the psychological well-being of retired men. Paper presented at the 39th annual meeting of the Gerontological Society of America, Chicago.
- Bengston, V. L. (1969). Differences between subsamples in level of present role activity. In R. J. Havighurst, J. M. Munnichs, B. Neugarten, & H. Thomae (Eds.), Adjustment to retirement: A cross-sectional study (pp.35-49). New York: Humanities Press.
- Berghorn, F. J., & Place, L. F. (1978). Aging now and in the future: A social perspective. Journal of Social Welfare, 5 (1), 33-40.

- Blau, P. (1964). Exchange and power in social life. New York: John Wiley and Sons.
- Blau, Z. S. (1973). Old age in a changing society. New York: Franklin Watts.
- Blazer, D., & Palmore, E. (1976). Religion and aging in a longitudinal panel. The Gerontologist, 16 (1), 82-84.
- Bosse, R., & Ekerdt, D. J. (1981). Change in self-perception of leisure activities with retirement. The Gerontologist, 21 (6), 650-654.
- Bower, G. H., & Gilligan, S. G. (1979). Remembering information related to one's self. Journal of Research in Personality, 13 (4), 420-432.
- Brennan, P. L., & Steinberg, L. D. (1983-84). Is reminiscence adaptive? Relations among social activity level, reminiscence, and morale. International Journal of Aging and Human Development, 18 (2), 99-109.
- Bromley, D. B. (1974). The psychology of human ageing (2nd ed.). England: Richard Clay Limited.
- Bull, C. N., & Aucoin, J. (1975). Voluntary association participation and life satisfaction: A replication note. Journal of Gerontology, 30 (1), 73-76.
- Bultena, G., & Dylor, R. (1971). Effects of health on disengagement and morale. International Journal of Aging and Human Development, 2 (2), 142-148.
- Burrus-Bammel, L. L., & Bammel, G. (1985). Leisure and recreation. In J. E. Birren and K. W. Schaie (Eds.), Handbook of the psychology of aging (2nd ed.), (pp. 848-864). New York: Van Nostrand Reinhold Company.
- Cain, L. D. (1967). Age status and generational phenomena: The new old people in contemporary America. Gerontologist, 7 (2), 83-92.
- Carp, F. M. (1978-79). Effects of the living environment on activity and use of time. International Journal of Aging and Human Development, 9 (1), 75-91.
- Carp, F. M., Carp, A., & Millsapp, R. (1982). Equity and satisfaction among elderly. International Journal of Aging and Human

- Development, 15 (2), 151-166.
- Cavan, R. S., Burgess, W., Havighurst, R. J., & Goldhammer, H. (1949). Personal adjustment in old age. Chicago: Science Research Associates.
- Chadwick-Jones, J. K. (1986). "Social exchange, social psychology and economics." In A. J. MacFadyen and H. W. MacFadyen (Eds.), Economic psychology, (pp. 249-267). Amsterdam: North-Holland.
- Chappell, N. (1983). Informal support networks among the elderly. Research on Aging, 5 (1), 77-99.
- Chiriboga, D. A. (1982). An examination of life events as possible antecedents to change. Journal of Gerontology, 37 (5), 595-601.
- Clark, M., & Anderson, B. G. (1967). Culture and aging: An anthropological study of older Americans. Springfield, Illinois: Charles C. Thomas.
- Clemente, F., & Sauer, J. (1976). Life satisfaction in the United States. Social Forces, 54 (), 621-631.
- Cohen, C. I., Teresi, J., & Holmes, D. (1985). Social networks and adaptation. The Gerontologist, 25 (3), 297-304.
- Cohen, J. (1977). Statistical power analysis for the behavioral sciences (Rev. Ed.). New York: Academia Press.
- Collette, J. (1984). Sex differences in life satisfaction: Australian data. Journal of Gerontology, 39 (2), 243-245.
- Connor, K. A., Powers, E. A., & Bultena, G. L. (1979). Social interaction and life satisfaction: An empirical assessment of late life patterns. Journal of Gerontology, 34 (1), 116-121.
- Cool, L. E. (1981). Role continuity or crisis in later life? A corsican case. International Journal of Aging and Human Development, 13 (3), 169-181.

- Crandall, R. C. (1980). Gerontology: A behavioral science approach. Reading, Massachusetts: Addison-Wesley Publishing Company.
- Crano, W. D., & Brewer, M. B. (1986). Principles and methods of social research. New York: McGraw-Hill.
- Cronbach, L. J. (1960). Essentials of psychological testing (2nd ed.). New York: Harper and Row.
- Cumming, E., & Henry, W.E. (1961). Growing old: The process of disengagement. New York: Basic Books.
- Cutler, N. E. (1979). Age variations in the dimensionality of life satisfaction. Journal of Gerontology, 34 (4), 573-578.
- Cutler, N. E. (1981-82). Voluntary association participation and life satisfaction: Replication, revision, and extension. International Journal of Aging and Human Development, 14 (2), 127-137.
- Cutler, S. J. (1973). Voluntary association and life satisfaction: A cautionary research note. Journal of Gerontology, 28 (1), 96-100.
- Cutler, S. J. (1976). Age profiles of membership of sixteen types of voluntary associations. Journal of Gerontology, 31 (4), 462-470.
- Datan, N., & Lohmann, N. (Eds.). (1980). Transitions of aging. New York: Academic Press.
- Dean, A., & Lin, N. (1977). The stress-buffering role of social support. The Journal of Nervous and Mental Disease, 165 (6), 403-417.
- Denton, F. T., & Spencer, B. G. (1980). Canada's population and labour force: Past, present, and future. In V. W. Marshall (Ed.), Aging in Canada: Social Perspectives (pp. 10-26). Toronto: Fitzhenry and Whiteside.
- Dohrenwend, B. S., & Dohrenwend, B. P. (Eds.). (1974). Stressful life events: Their nature and effects. New York: Wiley.
- Dorfman, L. T., Kohout, F. J., & Heckert, D. A. (1985). Retirement

- satisfaction in the rural elderly. Research on Aging, 7 (4), 577-599.
- Duff, R., & Hong, L. (1982). Quality and quantity of social interactions in the life satisfaction of older Americans. Sociology and Social Research, 66 (4), 418-434.
- Edwards, A. L. (1979). Multiple regression and the analysis of variance and covariance. New York: W. H. Freeman and Company.
- Edwards, J. N., & Klemmack, D. L. (1973). Correlates of life satisfaction: Re-examination. Journal of Gerontology, 28 (4), 497-502.
- Ekerdt, D. J., Bosse, R., & Levkoff, S. (1985). An empirical test for phases of retirement: Findings from the Normative Aging Study. Journal of Gerontology, 40 (1), 95-101.
- Ell, K. (1984). Social networks, social support and health status: A review. Social Service Review, 50 (1), 133-149.
- Elwell, F., & Maltbie-Crannell, A. D. (1981). The impact of the role loss upon coping resources and life satisfaction of the elderly. The Gerontologist, 36 (2), 223-232.
- Feldman, Jr., D. S., Gagnon, J., Hofmann, R., & Simpson, J. (1986). User guide for StatView 512+. Calabasas, California: Brain Power Inc.
- Felton, B. J. (1984, August). Cohort variation in happiness: Some hypotheses and exploratory analyses. Paper presented at the 79th Annual Meeting of the American Sociological Association, San Antonio, Texas.
- Ferguson, G. A. (1976). Statistical analysis in psychology and education, (4th ed.). New York: McGraw-Hill Book Company.
- Fround, R. J. , & Minton, P. D. (1979). Regression methods. New York: Marcel Dekker, Inc.
- George, L. K., & Maddox, G. L. (1977). Subjective adaptation to loss of the work role: A longitudinal study. Journal of Gerontology, 32 (4), 456-462.

- George, L. (1979). The happiness syndrome: Methodological and substantive issues in the study of social-psychological well-being in adulthood. Gerontologist, 19 (2), 210-216.
- George, L. (1980). Role transitions in later life. Monterey: Brooks and Cole Publishing.
- George, L. K. (1981). Subjective well-being: Conceptual and methodological issues. In C. E. Eisdorfer (Ed.). Annual review of gerontology and geriatrics, Vol. 2. (pp. 345-382). New York: Springer.
- George, L. K., & Landerman, R. (1984). Health and subjective well-being: A replicated secondary data analysis. International Journal of Aging and Human Development, 19 (2), 133-156.
- Gibson, D. M. (1986-87). Interactions and well-being in old age: Is it quantity or quality that counts? International Journal of Aging and Human Development, 24 (1), 29-40.
- Gilchrist, W. (1984). Statistical Modelling. New York: John Wiley and Sons.
- Goode, W. J. (1960). A theory of strain. American Sociological Review, 25 (4), 483-496.
- Gordon, C., Gaitz, C. M., & Scott, J. (1976). Leisure and lives: Personal expressivity across the life span. In R. H. Binstock & E. Shanas, (Eds.), Handbook of aging and social sciences (pp. 310-341). New York: Van Nostrand Reinhold Company.
- Graney, M. (1975). Happiness and social participation in aging. Journal of Gerontology, 30 (6), 701-706.
- Gubrium, J. F. (1975). Being single in old age. International Journal of Aging and Human Development, 6 (1), 29-41.
- Gunst, R. F., & Mason, R. L. (1980). Regression analysis and its application: A data-oriented approach. New York: Marcel Dekker, Inc.

- Guy, R. F. (1982). Religion, physical disabilities, and life satisfaction in older age cohorts. International Journal of Aging and Human Development, 15 (3), 225-232.
- Hadaway, C. K. (1978). Life satisfaction and religion: A reanalysis. Social Forces, 57 (), 636-643.
- Haight, F. A. (1967). Handbook of the Poisson distribution. New York: John Wiley and Sons.
- Hansson, R. O. (1986). Relational competence, relationships, and adjustment in old age. Journal of Personality and Social Psychology, 50 (5), 1050-1058.
- Harel, Z., & Noelker, L. S. (1982). Social integration, health and choice: Their impact on the well-being of institutionalized aged. Research on Aging, 4 (1), 97-111.
- Harris, L. & Associates, Inc. (1975). The myth and reality of aging in America. Washington, D. C.: The National Council on the Aging, Inc.
- Harris, R. A. (1975). A primer of multivariate statistics. New York: Academic Press.
- Havens, B. (1968). An investigation of activity patterns and adjustment in an aging population. The Gerontologist, 8 (3), 201-206.
- Havens, B., & Thompson, E. (1975, June). Social relationships and degree of isolation of elderly Manitobians. Paper presented at the 10th International Congress of Gerontology, Israel.
- Havighurst, R. J., & Albrecht, R. (1953). Older people. New York: Longmans Green.
- Havighurst, R. J. (1968). A social-psychological perspective of aging. The Gerontologist, 8 (3, Part 1), 67-71.
- Havighurst, R. J. (1976). Aging in America: Implications for education. Washington, D.C.: The National Council on the Aging, Inc.
- Havighurst, R. J., & Feigenbaum, K. (1977-78). "Leisure and life style," In L. R.

- Allman & D. J. Jaffe (Eds.), Readings in adult psychology: Contemporary perspectives (pp. 277-281). New York: Harper and Row.
- Hendricks, J., & Hendricks, C. D. (1981). Aging in mass society: Myths and realities. Cambridge, Massachusetts: Winthrop Publishing.
- Herzog, A. R., & Rodgers, W. L. (1981). The structure of subjective well-being in different age groups. Journal of Gerontology, 36 (4), 472-479.
- Hochschild, A. R. (1973). The unexpected community. Englewood-Cliffs, New Jersey: Prentice-Hall, Inc.
- Hochschild, A. (1975). Disengagement theory: A critique and proposal. American Sociological Review, 40 (5), 553-569.
- Horley, J. (1984). Life satisfaction, happiness and morale: Two problems with the use of subjective well-being indicators. The Gerontologist, 24 (2), 124-127.
- Horton, P. B., & Hunt, C. L. (1980). Sociology, (5th ed.). New York: McGraw-Hill Company.
- Hoyt, D. R., Kaiser, M. A., Peters, G. R., & Babchik, N. (1980). Life satisfaction and activity theory: A multidimensional approach. Journal of Gerontology, 35 (6), 935-941.
- Hudgens, R. W., Robins, E., & Delong, W. B. (1970). The reporting of recent stress in the lives of psychiatric patients. British Journal of Psychiatry, 117 (), 635-643.
- Hultsch, D. F., & Deutsch, F. (1981). Adult development and aging: A life-span perspective. New York: McGraw-Hill.
- Hunsberger, B. E. (1982, October). Self-reports of perceived influences related to religious development. Paper presented to the Society for the Scientific Study of Religion, Providence, Rhode Island.
- Hurst, C. E., & Guldin, D. A. (1981). The effects of intra-individual and inter-spouse status inconsistency on life satisfaction among older persons. Journal of Gerontology, 36 (1), 112-121.

- Itzin, F. H. (1983). Social relationships and activities. In W. M. Morris and I. M. Bader (Eds.), Hoffman's daily needs and interests of older people (2nd ed.), (pp. 95-118). Springfield, Illinois: Charles C. Thomas.
- Jackson, J. S., Bacon, J. D., & Peterson, J. (1977-78). Life satisfaction among black urban elderly. Journal of Aging and Human Development, 8 (2), 169-179.
- Keddy, B., & Lukan, E. (1985, Spring). The nursing apprentice: An historical perspective. Nursing Papers, 17 (1), 35-46.
- Kelly, J. R. (1982). Leisure. Englewood-Cliffs, N.J.: Prentice-Hall.
- Kemper, T. (1968). Reference groups, socialization and achievement. American Sociological Review, 33 (1), 31-45.
- Kleiber, D. A., & Kelly, J. R. (1980). Leisure, socialization and the life cycle. In S. E. Iso-Ahola (Ed.), Social psychological perspectives in leisure and recreation. Springfield, Illinois: Charles C. Thomas.
- Kleinbaum, D. G., & Kupper, L. L. (1978). Applied regression analysis and other multivariate methods. North Scituate, Massachusetts: Duxbury Press.
- Knapp, M. R. J. (1976). Predicting the dimension of life satisfaction. Journal of Gerontology, 31 (5), 595-604.
- Kozma, A., & Stones, M. J. (1980). The measurement of happiness: Development of the Memorial University of Newfoundland Scale of Happiness (MUNSH). Journal of Gerontology, 35 (6), 906-912.
- Kozma, A., & Stones, M. J. (1983). Predictors of happiness. Journal of Gerontology, 38 (5), 626-628.
- Krause, N. (1987). Satisfaction with social support and self-rated health in older adults. The Gerontologist, 27 (3), 301-308.
- Kremer, Y. (1984-85). Predictors of retirement satisfaction: A path model. International Journal of Aging and Human Development, 20 (2), 113-121.
- Kuhlen, R. (1959). Aging and life adjustment. In J. Birren (Ed.), Handbook of aging

- and the individual (pp. 852-900). Chicago: University of Chicago Press.
- Kutner, B., Fanshel, D., Togo, A., & Langner, T. (1956). Five hundred over sixty. New York: Russel Sage Foundation.
- Larson, R. (1978). Thirty years of research on the subjective well-being of older Americans. Journal of Gerontology, 33 (1), 109-125.
- Larson, R. W., Zuzanek, J., & Manneli, R. (1984, November). Daily fluctuations in subjective well-being. Paper presented at the 37th Annual Scientific meeting of the Gerontological Society of America, San Antonio, Texas.
- Lawton, M. P. (1975). The Philadelphia Geriatric Centre Morale Scale: A revision. Journal of Gerontology, 30 (1), 85-89.
- Lawton, M. P. (1977). What are we measuring? In C. N. Nydegger (Ed.), Measuring morale: A guide to effective assessment. Washington, D. C.: Gerontological Society.
- Lawton, M. P. (1983). Environment and other determinants of well-being in older people. The Gerontologist, 23 (4), 349-357.
- Lemon, B. W., Bengston, V. L., & Peterson, J. A. (1972). An exploration of the activity theory of aging: Activity types and life satisfaction among in-movers to a retirement community. Journal of Gerontology, 27 (4), 511-523.
- Leonard, W. M. (1981-82). Successful aging: An elaboration of social and psychological factors. International Journal of Aging and Human Development, 14 (3), 223-232.
- Levitt, M. J., Antonucci, T. C., Clark, M. L., Rolton, J., & Finley, G. E. (1985-86). Social support and well-being: Preliminary indicators based on two samples of the elderly. International Journal of Aging and Human Development, 21 (1), 61-77.
- Levkoff, S. E., Cleary, P. D., & Wettle, T. (1987). Differences in the appraisal of health between aged and middle-aged adults. Journal of Gerontology, 12 (1),

114-120.

Liang, J. (1982). Sex differences in life satisfaction among the elderly. Journal of Gerontology, 37 (1), 100-108.

Liang, J. (1984). Dimensions of the Life Satisfaction Index A: A structural formulation. Journal of Gerontology, 39 (5), 613-622.

Liang, J. (1986). Self-reported physical health among aged adults. Journal of Gerontology, 41 (2), 248-260.

Light, R. J. (1984). Investigating health and subjective well-being: Methodological considerations. International Journal of Aging and Human Development, 19 (2), 167-172.

Lohmann, N. (1977). Correlations of life satisfaction, morale, and adjustment measures. Journal of Gerontology, 32 (1), 73-75.

Lohmann, N. (1980). Life satisfaction research in aging: Implications for policy development. In N. Datan & N. Lohmann (Eds.), Transitions of aging (pp. 27-40). New York: Academic Press.

Lohr, M. J., Essex, M. J., & Klein, M. H. (1985, November). Life satisfaction and subjective health among older women: The importance of social support and coping. Paper presented at the 38th Annual Meeting of the Gerontological Society of America, New Orleans, Louisiana.

Long, T. J., Convey, J. J., & Chwalek, A. R. (1985). Completing dissertations in the behavioral sciences and education. San Francisco: Jossey-Bass Publishers.

Longino, C. F. & Kart, C. S. (1982). Explicating activity theory: Formal replication. Journal of Gerontology, 37 (6), 713-722.

Lowenthal, M. & Haven, C. (1968). Interaction and adaptation: Intimacy as a critical variable. American Sociological Review, 33 (1), 20-30.

Lubben, J. E. (1987, November). Assessing social networks among elderly populations. Paper presented at the 40th Annual Meeting of the Gerontological Society

of America, Washington, D. C.

Lubben, J. E. (In press). Gender differences in the relationship of widowhood and psychological well-being among low income elderly. Women and Health.

MacLean, M. J. (1977, October). Adjustment to and enjoyment of retirement: Methodological and research findings. Presented at the Canadian Association on Gerontology Scientific Meeting, Montreal.

MacLean, M. J. (1980). Personal major events and reactions to retirement: Preliminary findings. Canadian Counsellor, 14 (2), 83-87.

Maddox, G. L. (1962). Some correlates of differences in self-assessment of health status among the elderly. Journal of Gerontology, 17 (2), 180-185.

Maddox, G. L., & Douglas, E. B. (1973). Self-assessment of health: A longitudinal study of elderly subjects. Journal of Health and Social Behavior, 14 (1), 87-93.

Maddox, G. L., & Wiley, J. (1976). Scope, concepts and methods in the study of aging. In R. H. Binstock and E. Shanas (Eds.), Handbook of aging and social sciences (pp. 3-34). New York: Van Nostrand Reinhold Company.

Mancini, J. A., Quinn, W., Gavigan, M. A. & Franklin, H. (1980). Social network interaction among older adults: Implications for life satisfaction. Human Relations, 33 (8), 543-554.

Manitoba, Government of. (1971). Aging in Manitoba: Needs and resources. Winnipeg: Department of Health and Social Development.

Manitoba, Government of. (1973). Aging in Manitoba - Volume 1. Winnipeg: Department of Health and Social Development.

Mangen, D. J., & Peterson, W. A. (1984). Research instruments in social gerontology: Vol. 1. Clinical and social psychology. Minneapolis: University of Minnesota Press.

Mangen, D. J., & Peterson, W. A. (1984). Research instruments in social gerontology: Vol. 2. Social roles and social participation. Minneapolis: Univer-

sity of Minnesota Press.

Mangen, D. J., & Peterson, W. A. (1984). Research instruments in social gerontology: Vol. 3. Health, program evaluation and demography. Minneapolis: University of Minnesota Press.

Markides, K. S., & Martin, H. W. (1979). A causal model of life satisfaction among the elderly. Journal of Gerontology, *34* (1), 86-93.

Marks, S. R. (1977). Multiple roles and the role strain: Some notes on human energy, time and commitment. American Sociological Review, *42* (6), 921-936.

Markson, E. W. (1985-86). Gender roles and memory loss in old age: An exploration of linkages. International Journal of Aging and Human Development, *22* (3), 205-214.

Markus, H. (1977). Self-schemata and processing information about the self. Journal of Personality and Social Psychology, *35* (2), 38-50.

Marshall, V. W. (1980). No exit: An interpretative perspective on aging. In V. Marshall (Ed.), Aging in Canada: Social perspectives (pp. 51-60). Toronto: Fitzhenry and Whiteside.

Marshall, V. W. (1981, April). Social implications of demographic changes. Paper presented at the Seventh Annual Clinical Day of the Douglas Hospital, Montreal, Quebec.

Marshall, V. W. (1987). Aging in Canada: Social perspectives (2nd ed.). Toronto: Fitzhenry and Whiteside.

McAvoy, L. H. (1979). The leisure preferences, problems, and needs of the elderly. Journal of Leisure Research, *11* (1), 40-47.

McCall, R. B. (1980). Fundamental statistics for psychology (3rd ed.). New York: Harcourt Brace Jovanovich, Inc.

McPherson, B. D. (1983). Aging as a social process. Toronto: Butterworth and

Company.

- McPherson, B. D., & Kozlik, C. A. (1987). Age patterns in leisure participation: The Canadian case. In V. W. Marshall (Ed.), Aging in Canada: Social Perspectives (2nd ed.), (pp. 211-227). Toronto: Fitzhenry and Whiteside.
- Medley, M. (1976). Satisfaction with life among persons sixty-five years and older: A causal model. Journal of Gerontology, 31 (4), 448-455.
- Menaghan, E. G. (1985, November). Multiple roles and psychological well-being: Evidence from Panel Data. Paper presented at the 38th Annual Gerontological Society of America meetings, New Orleans, Louisiana. Neugarten, B. L., Havighurst, R. J., & Tobin, S. (1961). The measurement of life satisfaction. Journal of Gerontology, 16 (2), 134-143.
- Merton, R. K., & Kitt, A. (1950). Contributions to the theory of a reference group behaviour. In R. K. Merton & P. Lazarsfeld (eds.), Continuities in social research (pp. 40-105). Glencoe, Illinois: Free Press.
- Moberg, D. O. (1983). Religion in later years. In W. W. Morris and I. M. Bader (Eds.), Hoffman's daily needs and interests of older people (2nd ed.), (pp. 119-133). Springfield, Illinois: Charles C. Thomas.
- Morgan, A., & Godbey, G. (1978). The effects of entering an age-segregated environment upon the leisure activity patterns of older adults. Journal of Leisure Research, 10 (3), 177-190.
- Mullins, D., & Hayslip, B. (1985-86). Structure of daily activities and self-efficacy. Clinical Gerontologist, 4 (2), 48-51.
- Mutran, E., & Reitzes, D. C. (1981). Retirement identity and well-being: Realignment of role relationships. Journal of Gerontology, 36 (6), 733-740.
- Neugarten, B. L., Havighurst, R. J., & Tobin, S. (1961). The measurement of life satisfaction. Journal of Gerontology, 16 (2), 131-143.
- Neugarten, B. (1968). Middle age and aging. Chicago: University of Chicago

Press.

- Neugarten, B. L. (1982). Policy for the 1980's: Age or need entitlement? In B. L. Neugarten (Ed.), Age or need? Public policies for older people (pp. 19-32). Beverly Hills, California: Sage Publication, Inc.
- Nisbett, R. E., & Ross, L. (1980). Human inference: Strategies and shortcomings. Englewood-Cliffs, N. J.: Prentice-Hall.
- Nunnally, J. C. (1978). Psychometric theory (2nd ed.). New York: McGraw-Hill Company.
- Nusberg, C., Gibson, M.-J., & Peace, S. (1984). Innovative aging programs abroad: Implications for the United States. Westport, Connecticut: Greenwood Press.
- Okun, M. A., Stock, W. A., Haring, M. J., & Witter, R. A. (1984). Health and subjective well-being: A meta-analysis. International Journal of Aging and Human Development, 19 (2), 111-132.
- Osberg, T. M., & Shrauger, J. S. (1986). Self-prediction: Exploring the parameters of accuracy. Journal of Personality and Social Psychology, 51 (5), 1044-1057.
- Osgood, N., & Mizruchi, E. H. (1986, November). Differential patterns of leisure participation by age: A preliminary analysis of data from a longitudinal community study. Paper presented at the 39th annual meeting of the Gerontological Society of America, Chicago.
- Ostrow, A. C. (1974). Physical activity as it relates to the health of the aged. In N. Datan and N. LOhmann (Eds.), Transitions in aging (pp. 41-56). New York: Academic Press.
- Palmore, E. D. (1968). The effects of aging on activities and attitudes. The Gerontologist, 8 (4), 259-263.
- Palmore, E., & Jeffers, F. (1971). Prediction of life span, (Eds.). Lexington, Massachusetts: D. C. Heath and Company.
- Palmore, E., & Luikart, C. (1972). Health and social factors related to life

- satisfaction. Journal of Health and Social Welfare, 13 (1), 68-80.
- Palmore, E., & Kivett, V. (1977). Change in life satisfaction: A longitudinal study of persons aged 46-70. Journal of Gerontology, 32 (3), 311-316.
- Palys, T. S., & Little, B. R. (1980). Social indicators and quality of life. Canadian Psychology, 21 (2), 67-74.
- Pedhauzer, E. J. (1982). Multiple regression in behavioral research: Explanation and prediction (2nd ed.). New York: Holt, Rinehart, and Winston.
- Peppers, L. G. (1976). Patterns of leisure and adjustment to retirement. The Gerontologist, 16 (5), 441-446.
- Peterson, D. A. (1972). Financial adequacy in retirement: Perceptions of older Americans. The Gerontologist, 12 (4), 379-383.
- Prasad, S. B. (1964). The retirement postulate of the disengagement theory. The Gerontologist, 4 (1), 20-23.
- Ragheb, M. G., & Griffith, C. A. (1982). The contribution of leisure participation and leisure satisfaction to life satisfaction of older persons. Journal of Leisure Research, 14 (4), 295-306.
- Ray, R. O. (1979). Life satisfaction and activity involvement: Implications for leisure service. Journal of Leisure Research, 11 (2), 112-119.
- Riddick, C. C., & Daniel, S. N. (1984). The relative contribution of leisure activities and other factors to the mental health of older women. Journal of Leisure Research, 16 (2), 136-148.
- Riley, M., & Foner, A. (1968). Aging and society. Volume 1: An inventory of research findings. New York: Russel Sage.
- Roadburg, A. (1985). Aging: Retirement, leisure and work in Canada. Agincourt, Ontario: Methuen Publications.
- Roman, P., & Taietz, P. (1967). Organizational structure and disengagement: The Emeritus professor. The Gerontologist, 7 (2), 147-152.

- Rubin, A. M. , & Rubin, R. B. (1986). Contextual age as a life position index. International Journal of Aging and Human Development, 23 (1), 27-45.
- Russel, R. V. (1985, November). Correlates of life satisfaction in retirement. Paper presented at the 38th Annual Scientific meeting of the Gerontological Society of America, New Orleans, Louisiana.
- Ryff, C. D. (1982). Successful aging: A developmental appraoach. The Gerontologist, 22 (2), 209-214.
- Sauer, W. (1977). Morale of the urban aged: A regression analysis by race. Journal of Gerontology, 32 (5), 600-608.
- Schulz, R. (1986). Emotion and affect. In J. E. Birren and K. Warner Schaie (Eds.), Handbook of the psychology of aging (2nd ed.), (pp. 531-543). New York: Van Nostrand Reinhold Company.
- Shanas, E., Townsend, P., Wedderburn, D., Friis, H., Milhoj, P., & Stehouver, J. (1968). Old people in three industrial societies. New York: Atherton Press.
- Shanas, E. (1973). Family-kin networks and aging in a cross-cultural perspective. Journal of Marriage and the Family, 35 (1), 505-511.
- Shrauger, J. S., & Osberg, J. M. (1982). Self-awareness: The ability to predict one's future behavior. In G. Underwood (Ed.), Aspects of consciousness (Volume 3, pp. 267-313). London: Academic Press.
- Sieber, S. D. (1974). Towards a theory of role accumulation. American Sociological Review, 39 (4), 567-578.
- Sill, J. (1980). Disengagement reconsidered: Awareness of finitude. The Gerontologist, 20 (4), 457-462.
- Simons, R. L. (1983-84). Specificity and substitution in the social networks of the elderly. International Journal of Aging and Human Development, 18 (2), 121-139.
- Smith, K., & Lipman, A. (1972). Constraint and life satisfaction. Journal of

Gerontology, 27 (1), 77-82.

- Snider, E. L. (1980). Explaining life satisfaction: It's the elderly's attitudes that count. Social Science Quarterly, 61 (2), 253-263.
- Snow, D. L. & Gordon, J. B. (1980). Social network analysis and intervention with the elderly. The Gerontologist, 20 (4), 463-467.
- Soumerai, S. B., & Avorn, J. (1983). Perceived health, life satisfaction, and activity in urban elderly: A controlled study of the impact of part-time work. Journal of Gerontology, 38 (3), 356-362.
- Spreitzer, E., & Snyder, E. (1974). Correlates of life satisfaction among the aged. Journal of Gerontology, 29 (4), 454-458.
- Steinitz, L. Y. (1980). Religiosity, well-being and Weltanschauung among the elderly. Journal for the Scientific Study of Religion, 19 (1), 60-67.
- Stones, M. J., & Kozma, A. (1980). Issues relating to the usage and conceptualization of mental health constructs employed by gerontologists. International Journal of Aging and Human Development, 11 (4), 269-282.
- Stones, M. J., & Kozma, A. (1986). Happiness and activities as propensities. Journal of Gerontology, 41 (1), 85-90.
- Stones, M. J., & Kozma, A. (1986). "Happy are they who are happy..." A test between two causal models of relationships between happiness and its correlates. Experimental Aging Research, 12 (1), 23-29.
- Strain, L. A., & Chappell, N. L. (1982). Problems and strategies: Ethical concerns in survey research with the elderly. The Gerontologist, 22 (6), 526-531.
- Strate, J. M., & Dubnoff, S. J. (1986). How much is enough? Measuring the income adequacy of retired persons using a survey based approach. Journal of Gerontology, 41 (3), 393-400.
- Streib, G. F., & Schneider, C. J. (1972). Retirement in American society. Ithaca,

New York: Cornell University Press.

Subrahmaniam, K. (1979). A primer in probability. New York: Marcel Dekker, Inc.

Tabachnick, B. G., & Fidell, L. S. (1983). Using multivariate statistics. New York: Harper and Row Publishers.

Tesch, S. , Whitbourne, S. K., & Nehrke, M. F. (1981). Friendship, social interaction and subjective well-being in an institutional setting. International Journal of Aging and Human Development, 13 (4), 317-327.

Thoits, P. A. (1981). Undesirable life events and psychophysiological distress: A problem of operational confounding. American Sociological Review, 46 (1), 97-109.

Thoits, P. A. (1982). Conceptual, methodological, and theoretical problems in studying social support as a buffer against life stress. Journal of Health and Social Behavior, 23 (1), 145-159.

Thoits, P. A. (1983). Multiple identities and psychological well-being: A reformulation and test of the social isolation hypothesis. American Sociological Review, 48 (2), 174-187.

Tinsley, H. E. A., Teaff, J. D., Colbs, S. L., & Kaufman, N. (1985). A system of classifying leisure activities in terms of psychological benefits of participation reported by older persons. Journal of Gerontology, 40 (20), 172-178.

Tornstam, L. (1975). Health and self-perception: A systems theoretical approach. The Gerontologist, 27 (), 264-270.

Toseland, R., & Rasch, J. (1979-80). Correlates of life satisfaction: An aid analysis. International Journal of Aging and Human Development, 10 (2), 203-211.

Usui, W. M., Kell, T. J., & Durig, K. R. (1985). Socioeconomic comparisons and life satisfaction of elderly adults. Journal of Gerontology, 40 (1), 110-114.

Usui, W. M. , Himmelfarb, S. Z., & Murrell, S. A. (1986, November). Activity, self-esteem, and life satisfaction. Poster presented at the 39th annual meeting of the

- Gerontological Society of America, Chicago.
- Veroff, J. D. E., & Kulka, R. A. (1981). The inner American: A self-portrait from 1957 to 1976. New York: Basic Books.
- Videback, R., & Knox, A. B. (1965). Alternative participatory responses to aging. In A. M. Rose & W. A. Peterson (Eds.), Older people and their world (pp. 37-48). Philadelphia: F. A. Davis.
- Wan, T. T. H., Odell, B. G., & Lewis, D. T. (1982). Promoting the well-being of the elderly: A community diagnosis. New York: Haworth Press.
- Ward, R. A. (1979). The aging experience: An introduction to social gerontology. New York: J. B. Lippincott and Company.
- Ward, R. A., Sherman, S. R., & LaGory, M. (1984). Subjective network assessments and subjective well-being. Journal of Gerontology, 39 (1), 93-101.
- Ward, R. A. (1985). Informal networks and well-being in later life: A research agenda. The Gerontologist, 25 (1), 55-61.
- Whitbourne, S. K. (1985). The psychological construction of the life span. In J. E. Birren & K. Warner Schaie (Eds.), Handbook of the psychology of aging, (2nd ed.), (pp. 594-618). New York: Van Nostrand Reinhold Company.
- Williams, R., & Wirths, G. (1965). Lives through the years. New York: Atherton Press.
- Wood, V., & Robertson, J. (1978). Friendship and kinship interaction: Differential effect on the morale of the elderly. Journal of Marriage and the Family, 40 (2), 367-375.
- Youmans, E. G. (1966). Objective and subjective economic disengagement among older rural and urban men. Journal of Gerontology, 21 (3), 439-441.
- Zautra, A., & Hempel, A. (1984). Subjective well-being and physical health: A narrative literature review with suggestions for future research. International Journal of Aging and Human Development, 19 (2), 95-110.

Appendix A

Sample Size Required for Study

To ensure detection of a significant effect, the statistical analysis of power estimate was used to determine size of sample needed. It was found that a sample size between 115 and 244 would be needed, depending on the effect size involved. Assuming the value of power is .80 (Cohen, 1975), level of significance (alpha) being .05 and an effect size of .20, taken from the literature, with 25 variables to be used in the study, the investigator would need a sample size of 115 elderly respondents. A conservative alternative to this would be to leave power at .80, alpha at .05, lower the effect size to .10, according to some of the findings in the literature, with 25 variables to be studied. Under these conditions, the investigator would need a sample size of 244 elderly participants. Selection of a lower effect size requires a larger number of subjects.

Taking into account the aforementioned, a minimum of 115 respondents was estimated to be necessary for the study to yield statistically significant results, keeping alpha at .05 and power at .80. The number of sample respondents in this study was 120.

Appendix B

Explanation of Study to Participant

Interviewer: Introduce yourself to the respondent and ask how they
would like to be addressed.

HELLO (MR./MRS./MS.) _____. MY NAME
IS FERNANDA FRESCO. I AM FROM SAINT MARY'S UNIVERSITY AND AM
INTERESTED IN TALKING TO SENIORS ABOUT THEIR SATISFACTION OR
HAPPINESS WITH LIFE AT THE PRESENT TIME. I WANT TO THANK YOU
VERY MUCH FOR VOLUNTEERING YOUR TIME FOR THIS STUDY. I WANT
TO ASSURE YOU THAT EVERYTHING YOU SAY IS CONFIDENTIAL AND THAT
YOUR NAME WILL NOT BE USED ANYWHERE. I AM INTERESTED IN GEN-
ERAL GROUP PATTERNS AND NOT IN HOW A PARTICULAR INDIVIDUAL
BEHAVES. THERE ARE NO RIGHT OR WRONG ANSWERS TO THESE QUES-
TIONS. I AM MOST INTERESTED IN YOUR EXPERIENCES AND OPINIONS .
GROUPED TOGETHER, ALL THESE EXPERIENCES WILL TEACH ME ABOUT
THE LIVES OF SENIORS. I AM GOING TO ASK YOU QUESTIONS ABOUT
YOURSELF, YOUR FAMILY AND FRIENDS, AND THE KINDS OF ACTIVITIES

THAT YOU ARE INVOLVED IN. SOME OF THESE QUESTIONS MAY NOT SEEM TO APPLY TO YOU. HOWEVER, IT IS IMPORTANT THAT YOU ANSWER ALL THE QUESTIONS, SO THAT YOU'LL BE ABLE TO HELP ME LEARN MORE ABOUT PEOPLE LIVING IN ALL KINDS OF CIRCUMSTANCES. IF THERE ARE ANY QUESTIONS THAT YOU WOULD PREFER NOT TO ANSWER, PLEASE DO NOT FEEL OBLIGATED TO DO SO. AFTER THE STUDY IS FINISHED, YOU WILL BE WELCOMED TO ATTEND A PRESENTATION OF THE RESEARCH FINDINGS. THANK YOU FOR YOUR KIND CONSIDERATION. IT IS VERY MUCH APPRECIATED.

Appendix BInterview Survey ScheduleFace Sheet

Identification Number _ _ _

Interview City _____

Interview Setting _____

Date of Interview (Day/Month/Year) _____

Time started _____

Time Finished _____ Time (Minutes) _____

No. of Calls to Obtain Interview 1 2 3 4

No. of Calls to Complete Interview 1 2 3 4

1. Sex

1. Male
2. Female

First, I'd like to know a little about you.

2. What is your age? _ _ _

3. What is your birth date? (Code day, month, year) _/_/_

4. What is your marital status?

- 1 Single
- 2 Married
- 3 Divorced
- 4 Separated
- 5 Widowed
- 6 Other (Specify) _____
- 99 No answer

5. What is your religious preference, if any?

- 01 No preference
- 02 Anglican
- 03 Baptist
- 04 Greek Orthodox
- 05 Jehovah's Witness
- 06 Jewish
- 07 Lutheran
- 08 Mennonite
- 09 Penticostal
- 10 Presbyterian
- 11 Roman Catholic
- 12 United Church
- 13 Other (Specify) _____
- 99 No answer

6. Do you live in: (Place of Residence)

- 1 Private house
- 2 Apartment

- 3 Seniors only housing
- 4 Hostel
- 5 Other (Specify) _____
- 99 No answer

7. What is your racial background?

- 1 White
- 2 Black
- 3 Asian / oriental
- 4 Indian / Native
- 5 Other (Specify) _____
- 99 No answer

8. Are you currently employed?

- 1 No
- 2 Yes, full-time
- 3 Yes, part-time
- 4 Yes, occasionally
- 99 No answer

9. What is your highest level of education?

- 1 Less than high school
- 2 High school graduate
- 3 Vocational school / Business school
- 4 Began, but did not complete college / university
- 5 University graduate
- 6 Post-university graduate
- 99 No answer

10. Now I would like to ask you about your income. What you tell me is confidential information.

(Explain that his/her name is not put on the questionnaire and that the information will be used statistically, so that the interviewee can find out about what incomes older people have, in general, and not the income of any one individual).

What is your average monthly income, including the old age pension payment? (If income for a couple is provided, divide by 2. That is, record income for the individual only. Try to record exact amount, also).

- 01 No income
- 02 Less than \$250
- 03 \$250 - 499
- 04 \$500 - 749
- 05 \$750 - 999
- 06 \$1000 - 1249
- 07 \$1250 - 1499
- 08 \$1500 - 1749
- 09 \$1750 - 1999
- 10 \$2000 - 2249
- 11 \$2250 - 2499
- 12 \$2500 - 2749
- 13 \$2750 - 2999
- 14 \$3000 or more
- 97 Don't know
- 99 No answer

11. What was your major occupation in life? (Specify) _____

- 1 Professional
- 2 High-level management
- 3 Skills crafts, Trade, Technical, Clerical
- 4 Semi-skilled or unskilled
- 5 Farm labourer
- 6 Housewife
- 7 Other (Specify) _____
- 99 No answer

12. Is your income adequate in meeting your needs?

- 1 No
- 2 Yes
- 99 No answer

13. For someone your age, do you consider your health?

- 1 Excellent
- 2 Good
- 3 Fair
- 4 Poor
- 99 No answer

14. Does your health enable you to do the things that you like to do?

- 1 No
2 Yes

Now I want to ask you about the activities that you participate in?

1. What do you do in your free time?

Work in and around house . . .	Work on some hobby . . .	_____
Work in garden or yard	Listen to the radio	_____
Farm work	Write letters	_____
Attend movies	Write books, articles,	_____
Attend theatres, lectures,	poems, etc.	_____
concerts	Participate in commu-	_____
Shop	nity or church work . .	_____
Attend clubs, lodges,	Play golf, other	_____
other meetings	sports	_____
Sew, crochet, or knit	Play cards or other	_____
Read	table games	_____
Just sit and think	Take rides	_____
Visit or entertain friends		_____
Other (what?) _____		

2. List the hobbies or favorite pastimes you now have _____

3. How much time each day do you spend in reading?

Never read ()
A few minutes ()
An hour or more ()
Practically all day ()

4. To how many organizations, such as clubs, lodges, unions, and the like, do you now belong?

None ()
One ()
Two ()

- Three ()
 Four ()

5. How many club meetings do you usually attend each month?

- None ()
 Less than one a month ()
 One or two a month ()
 One a week ()
 Two or more a week ()

6. How often do you attend religious services?

- Never ()
 Less than once a month ()
 Once or twice a month ()
 Once a week ()
 Twice a week or oftener ()

7. Do you listen to church services over the radio?

- Never ()
 Once in a while ()
 About once or twice a week ()
 Three or more times a week ()

8. How often do you read the Prayer book, Bible or other religious books?

- Never ()
 Less than once a week ()
 Once a week ()
 Every day ()

9. With whom are you living?

- With husband or wife () With parents ()
 With husband or wife and With relatives ()
 children () With friends ()
 With children alone () Alone ()
 Others (who are they?) () _____

10. How often do you see some of your family or close relatives?

Less than once a year () Every day ()
 About once a month () Have no family or
 Once or twice a week () relatives ()

11. If you have a family or close relatives, do they neglect you?

Yes, completely ()
 A little ()
 Not at all ()

12. Do you see your friends more or less often now than when you were 55 years old?

Less often now ()
 About the same ()
 More often now ()

13. Do you often see or hear from children or young people who are friends ? (Include nieces, nephews, grandchildren)

Less than once a year () Every day ()
 A few times a year () Have no friends among
 Once or twice a month () children or young
 About once a week () people ()

14. What are your serious physical problems?

Poor sight () General rheumatic
 Blind or nearly so () stiffness ()
 Hard of hearing () Heart trouble ()
 Deaf or nearly so () Stomach trouble ()
 Crippled arms, hands, or High blood pressure . . . ()
 legs () No physical problems. . ()
 Other (what is it?) _____

15. Below is a list of difficulties that people often have. Check those trouble you?

Shortness of breath at night () Difficulty in urination ()
 Shortness of breath after () Constipation ()

- slight exercise () Aching joints ()
 Heartburn () Backache ()
 Swelling of feet or legs () Gas pains ()
 Feeling tired () Belching ()
 Have had nervous breakdown () Headaches ()
 No difficulties ()

16. How many days did you spend in bed last year?

- All the time ()
 A month or two ()
 Two to four weeks ()
 A few days ()
 None ()

17. Which of the following things often trouble you?

- Sleeplessness () Dislike noise ()
 Bad dreams () Worry about my health ()
 Tire too easily () Forgetfulness ()
 Food doesn't taste good () Troubled with none of
 Feel blue () these ()
 Nervousness ()

18. Are you working now?

- Yes, full-time ()
 Yes, part-time ()
 No ()

19. If you are a woman, are you taking care of your home?

- No ()
 Do a little or get help from someone else ()
 Do everything myself ()
 Other (what?) ()

20. What things have you had to do since the age of 55 because of lowered income?

- Gave up my home () Gave up clubs ()
 Move to less expensive home () Bought less expensive
 clothes ()

Stopped going to church . . . () Stopped taking
 Bought less expensive food. . () vacations ()
 Couldn't keep home or Have not had to do
 furnishings in repair () any of these ()
 Other(what?) ()

Social Interactions

These are questions about your friends and family members.

1. How many people live in the same household as you?
2. Do you have relatives that you feel closest to? How often do you get together with these relatives?

_____ every day
 _____ at least once a week
 _____ a few times a month
 _____ about once a month
 _____ a few times a year
 _____ about once a year
 _____ almost never - haven't seen in years

3. How many people that you know do you consider close friends - that is, people you can confide in and talk over personal matters with? Now take the friends you're closest to - about how often do you get together with any of them?

_____ at least once a week
 _____ a few times a month
 _____ about once a month
 _____ a few times a year
 _____ almost never - haven't seen in years

4. Do you have neighbors that you know well? How often do you get together with these neighbors?

_____ every day
 _____ at least once a week
 _____ a few times a month

_____ about once a month
 _____ anything less

5. In the course of a day's work, about how many people do you see and talk to?
6. Now, about people you see for certain specific purposes - like storekeepers, bus drivers, waiters, salespeople, and so on. About how many of these do you see fairly regularly, would you say?

Social Roles

1. Number of household: If only one person other than the respondent who lives in the household, count 1. For two or more people, count 2.
2. Relatives: For each category of relatives mentioned in the interview, count 1. If none, count 0.
3. Friends: Count 1 if any friends are mentioned, 0 if none are mentioned.
4. Neighbors: As for friends (above).
5. Fellow workers: Score 1 if employed, 0 if unemployed.
6. Specific people (shoppers, customer, etc.): Score 1 if any are mentioned, 0 if none are mentioned.
7. Church: Score 1 for membership, 0 if not a member.
8. Organizations: Score 1 for each attended, 0 if none.

Here are some statements about life in general that people feel differently about. Would you read along with me each statement on the list and tell me if you agree with it, disagree with it or if you are not sure one way or the other.
Please be sure to answer every question on the list.

	AGREE	DISAGREE	NOT SURE
1. As I grow older, things seem better than I thought they would be	_____	_____	_____
2. I have gotten more of the breaks in life than most of the people I know	_____	_____	_____
3. This is the dreariest time of my life	_____	_____	_____
4. I am just as happy as when I was younger	_____	_____	_____
5. My life could be happier than it is now	_____	_____	_____
6. These are the best years of my life	_____	_____	_____
7. Most of the things I do are boring or monotonous	_____	_____	_____
8. I expect some interesting and pleasant things to happen to me in the future	_____	_____	_____
9. The things I do are as interesting to me as they ever were	_____	_____	_____
10. I feel old and somewhat tired	_____	_____	_____
11. I feel my age, but it doesn't bother me	_____	_____	_____
12. As I look back on my life, I am fairly well satisfied	_____	_____	_____
13. I would not change my past life even if I could	_____	_____	_____

- | | | | |
|--|-------|-------|-------|
| 14. Compared to other people my age, I've made a lot of foolish decisions in my life | _____ | _____ | _____ |
| 15. Compared to other people my age, I make a good appearance | _____ | _____ | _____ |
| 16. I have made plans for things I'll be doing a month or year from now . . . | _____ | _____ | _____ |
| 17. When I think back over my life, I didn't get most of the important things I wanted | _____ | _____ | _____ |
| 18. Compared to other people, I get down in the dumps too often | _____ | _____ | _____ |
| 19. I've gotten pretty much what I expected out of life | _____ | _____ | _____ |
| 20. In spite of what people say, the lot of the average man is getting worse, not better | _____ | _____ | _____ |

Now, I will ask you some open-ended questions that pertain to yourself, family, and friends?

1. How would you define life satisfaction?
2. Could you tell me about those events / situations that make you satisfied at this time in your life?
3. Could you tell me about those times that are less satisfying to you at this time in your life?
4. Could you be more satisfied with your life at the present time? Explain.
5. What do you think was the most satisfying aspect(s) of your life 10 years ago?
6. What do you think was the least satisfying aspect(s) of your life 10 years ago?
7. What do you think might be the most satisfying aspect(s) of your life 10 years from now?
8. What do you think might be the least satisfying aspect(s) of your life 10 years from now?
9. Of all the activities that you are presently involved in, which do you derive the most satisfaction?
10. Of all the activities that you are presently involved in, which do you derive the least satisfaction from?
11. Of all the relationships that you have shared with others, which are the most meaningful to you at this time in your life?

12. Of all the relationships that you have shared with others, which do you derive the least satisfaction from at this time in your life?
 13. Of all the relationships that you have shared with others in the past, which were the most meaningful to you?
 14. Of all the relationships that you shared with others in the past, which did you derive the least satisfaction from?
 15. Could you please state for me the most satisfying work events in your life?
 16. Could you please state for me the least satisfying work events in your life?
 17. Could you please state for me the most satisfying family events in your life?
 18. Could you please state for me the least satisfying family events in your life?
 19. Could you please state for me the most satisfying leisure events in your life?
 20. Could you please state for me the least satisfying leisure events in your life?
 21. What, if anything, do you miss about your work place?
 22. What, if anything, do you miss about your family life?
 23. What, if anything, do you miss about your leisure life?
 24. Do you think that your income is adequate in meeting all of your needs? Explain.
 25. Do you think that your health enables you to do what it is that satisfies you? Explain.
-

26. What is your philosophy of life?

WE HAVE REACHED THE END OF THE INTERVIEW. I WANT TO THANK YOU
ONCE AGAIN FOR YOUR PARTICIPATION. BEFORE I LEAVE WOULD YOU
LIKE TO MAKE ANY COMMENTS OR TO ASK ME ANY QUESTIONS?

Appendix C

Poisson Distribution

Poisson distribution is determined as a response to the limitation of the binomial or Bernoulli distribution (Haight, 1967). "In the binomial distribution, if p is very small [$p \rightarrow 0$], as n becomes increasingly large [$n \rightarrow \infty$], it is difficult to evaluate the probabilities," (Subrahmaniam, 1979, p. 229). However, the binomial distribution can be approximated by the Poisson distribution when p is made proportional to $1/n$. "The Poisson distribution is obtained by counting the number of events r , in a fixed time t . The mean number of events in t is λ and the distribution of r is given by:

$$\Pr(R = r) = \frac{e^{-\lambda} \lambda^r}{r!} \quad r = 0, 1, 2 \quad (\text{Gilchrist, 1984, p. 39}).$$

Scoring Procedure for Social Litespace Measure (Cumming and Henry, 1960)

	<u>Number</u>	<u>Frequency Score</u>
Persons in household	_____	_____
Relatives	_____	_____
Neighbors	_____	_____

Friends	_____	_____
Fellow workers	_____	_____
Specific people	_____	_____
Total	_____	_____
	+ 1	+ 0
	$\sqrt{(n + 1)}$	\sqrt{A}
	$\sqrt{\text{_____}}$	$\sqrt{\text{_____}}$
Life Space Score =	_____	+ _____

Instructions: Total the number or scope of contacts and add 1. Take the square root. Total the frequency score and take the square root. Then add these two square roots.

Appendix D

**Multiple Regression Analysis: Partial R-Squared Values^a, Increments
in R-Squared Values^b, Correlation Coefficients, Beta Weights, and
F-Values of Activity Level for Life Satisfaction Criterion Variable**

Variable	Partial R-Squared Value ^a	R-Square Change ^b	r	Beta Weight	F
Intimate	.10	.09	.32	.30	12.79**
Leisure	.07	.06	.28	.26	8.69*
Religious	.00	.00	.07	.02	.04ns
Overall	.17	.15	(d.f. = 3, 116)		7.94**
<div><div>R² = .17^c</div><div>Adjusted R² = .15</div><div>R = .41**</div></div>					

Note. All p values are one-tailed. $N = 120$.

^apartial correlations. ^bsemi-partial correlations.

^cUnique variability = .15, Shared variability = .02.

* $p < .0039$. ** $p < .0001$. *** $p < .0005$.

Appendix E

Table 1

Multiple Regression Analysis: Partial R-Squared Values^a, Increments in R-Squared Values^b, Correlation Coefficients, Beta Weights, and F-Values of Informal Social Interaction Predictor Set for Life Satisfaction Criterion Variable

Variable	Partial R-Squared Value ^a	R-Square Change ^b	r	Beta Weight	F
Household/ Scope	.01	.01	.12	.12	.20 ns
Relatives/ Scope	.01	.01	.12	.11	.25 ns
Friends/ Scope	.01	.01	.12	.09	.34 ns
Friends/ Frequency	.00	.00	.07	.05	.61 ns
Overall	.03	.03	(d. f. = 4, 115)		1.22 ns

$R^2 = .04^c$
Adjusted $R^2 = .01$
 $R = .20$

Note. All *p* values are one-tailed. **N** = 120.

^apartial correlations. ^bsemi-partial correlations.

^cUnique variability = .03, Shared variability = .01.

Appendix E

Table 2

**Analysis of Variance Table for Multiple Regression of Informal
Social Interactions**

SOURCE	SS	df	MS	F
Regression	41.02	4	10.25	1.22 ns
Residual	970.91	115	8.44	
Total	1011.93	119		

Note. All p values are one-tailed.

N = 120.

Appendix F

Correlations of Variables in Personal Major Life Events Predictor

Set with Life Satisfaction

Life Satisfaction with :	r
<hr/>	
Work Sat./Total	.00 ns
Fam. Sat./Total	.18*
Leis. Sat./Total	.19**
Work Dis./Total	-.15 ns
Fam. Dis/Total	-.21**
Leis. Dis./Total	-.22***
Work. Sat.	.00 ns
Fam. Sat.	.28****
Leis. Sat.	.22***
Work Dis.	-.12 ns
Fam. Dis.	-.05 ns
Leis. Dis.	-.17*

Note. All p values are one-tailed. $N = 120$.

* $p < .05$. ** $p < .025$. *** $p < .01$. **** $p < .005$.

Appendix GOne-Way Analysis of Variance Table for Occupation on Life Satisfaction

SOURCE	SS	df	MS	F
Between	14.32	2	7.16	.84 ns
Within	997.6	117	8.53	
Total	1011.93	119		

N = 120.

Appendix H

One-Way Analysis of Variance Table for Self-Assessment of Health on Life Satisfaction

SOURCE	SS	df	MS	F
Between	26.19	2	13.10	1.55 ns
Within	985.73	117	8.43	
Total	1011.92	119		

N = 120.