



Relationships of personal control to health and well-being among nursing home residents
by Jocelynn Roberta Waldron

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Nursing
Montana State University

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Abstract:

The purpose of this correlational descriptive study was to describe dimensions of personal control and psychological well-being in elderly residents of nursing homes. Specifically, the aim was to examine the relationships among perceived personal control, psychological well-being, and levels of health and mobility. The literature strongly supports positive relationships between all of the variables.

A nonrandom sample of 30 cognitively intact residents was selected from six rural nursing homes in three counties of Montana. Seventy-six percent of the participants were women, mean age of the sample was 84, and 60% had been in the home 2 years or less. Quantitative instruments used included the Locus of Desired Control Measure, the Situational Control of Daily Activities Scale, the Scales of Psychological Well-Being, a General Health scale, and the Minimum Data Set. Qualitative data relating to well-being, health, and mobility was gathered through open-ended questions asked each resident.

Pearson correlation coefficients and multiple regression analysis demonstrated significant relationships among all of the variables. In general, residents exhibited high levels of desired, expected, and situational control. Participants were also found to have high ratings of well-being. The demographic variable of age demonstrated significant relationships with well-being.

Results from this study add further support to the research linking personal control and well-being to levels of health and mobility and age. Interventions should include strategies to facilitate and maintain perceived personal control and well-being in nursing home residents. Limitations were discussed and additional research recommendations were made.

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TO HEALTH AND WELL-BEING AMONG
NURSING HOME RESIDENTS**

by

Jocelynn Roberta Waldron

**A thesis submitted in partial fulfillment
of the requirements for the degree**

of

Master of Nursing

**MONTANA STATE UNIVERSITY
Bozeman, Montana**

April 1996

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This thesis has been read by each member of the thesis committee and has been found to be satisfactory regarding content, English usage, format, citations, bibliographic style, and consistency, and is ready for submission to the College of Graduate Studies.

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VITA

Jocelynn Roberta Waldron was born June 6, 1955 in Billings, Montana. From the age of six she lived in various cities in Texas residing for the majority of time in Houston. She received her secondary education at San Marcos Academy in San Marcos, Texas. In 1977 she graduated from Sam Houston State University in Huntsville, Texas with a Bachelor of Science Degree in Biology. After moving to Montana in 1988, she attended Carroll College in Helena and received her Bachelor of Arts in Nursing in 1992.

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ABSTRACT

The purpose of this correlational descriptive study was to describe dimensions of personal control and psychological well-being in elderly residents of nursing homes. Specifically, the aim was to examine the relationships among perceived personal control, psychological well-being, and levels of health and mobility. The literature strongly supports positive relationships between all of the variables.

A nonrandom sample of 30 cognitively intact residents was selected from six rural nursing homes in three counties of Montana. Seventy-six percent of the participants were women, mean age of the sample was 84, and 60% had been in the home 2 years or less. Quantitative instruments used included the Locus of Desired Control Measure, the Situational Control of Daily Activities Scale, the Scales of Psychological Well-Being, a General Health scale, and the Minimum Data Set. Qualitative data relating to well-being, health, and mobility was gathered through open-ended questions asked each resident.

Pearson correlation coefficients and multiple regression analysis demonstrated significant relationships among all of the variables. In general, residents exhibited high levels of desired, expected, and situational control. Participants were also found to have high ratings of well-being. The demographic variable of age demonstrated significant relationships with well-being.

Results from this study add further support to the research linking personal control and well-being to levels of health and mobility and age. Interventions should include strategies to facilitate and maintain perceived personal control and well-being in nursing home residents. Limitations were discussed and additional research recommendations were made.

CHAPTER 1

INTRODUCTION

This study related to issues of autonomy among institutionalized elderly used a correlational descriptive survey design. The construct of autonomy, personal control as a dimension of autonomy, psychological well-being, and levels of health and mobility provided the basis for the conceptual framework. Autonomy is a central and complex value in American society. It is a broad construct defined as control over one's environment and choice of options (Hofland, 1988). Autonomy has been conceptualized as self-determination, self-governance, self-regulation, individual liberty, control, privacy, and independence. For the purposes of this study autonomy was operationalized as personal control. According to Hofland and others, loss of control over the environment and daily activities has negative effects on the health and well-being of nursing home residents.

Background and Significance

The present study was based on the growing consensus that loss of autonomy and resulting dependence are not necessary concomitants of aging (Chafey, 1994). Yet, concerns regarding the many adverse effects of loss of personal control and a decrease in well-being of nursing home residents have been reported frequently in the literature (Rodin, 1986; Rowe & Kahn, 1987; Hofland, 1988).

Longevity has resulted in repeated admissions and relocations of the elderly into long-term care facilities (Burnette, 1986). According to the Encyclopedia of Aging, the probability of a period of short or long-term relocation after the age of 65 was near 63% (Maddox, 1987). Using the current ratio of one nursing home resident to every 20 persons, the number of persons in nursing homes by the year 2030 has been estimated to be three million (Bowsher & Gerlach, 1990).

Upon entering the institutions, personal belongings must be downsized, personal space is diminished, and personal choices are now constrained by the home's rules and regulations. These changes in lifestyle may affect both the actual and perceived level of personal control in nursing home residents. Elderly persons in situations where even a single aspect of their existence is in the hands of another is subjected to potential changes in personal control. Older members of society being cared for by employees in long-term care all tend to be subjected to decreased levels of personal control.

The perceived level of personal control among elderly residing in nursing homes is important to the practice of rural nursing. Rural and frontier elderly persons, known for their independent and self-reliant lifestyles (Bigbee, 1991), may be particularly vulnerable to the constraints of nursing home placement. Moving from the wide open spaces of rural and frontier living to a small shared room might well be the ultimate assault on their sense of personal control and well-being depending on their views of institutionalization, personal goals, and values.

Purpose and Research Questions

Personal control, as a dimension of autonomy, affects many aspects of the elderly person's quality of life. Psychological well-being (Bowsher & Gerlach, 1990), physical health (Rodin, 1986), functional ability (Hegeman & Tobin, 1988), morale and motivation (Mentzer & Schorr, 1986; Ryden, 1984), and peace of mind (Nystrom & Segesten, 1994) can all be affected to some extent by a person's perceived level of control. Levels of health and mobility have also been shown to both affect and be affected by perceived levels of personal control and well-being (Rodin, 1986; Bowsher & Gerlach, 1990; Jirovec & Maxwell, 1993).

The purpose of this study was to describe dimensions of personal control and psychological well-being in elderly residents of nursing homes. Specifically, the aim was to examine the relationships among perceived personal control, psychological well-being, and levels of health and mobility.

In order to accomplish the purpose of the study the following research questions were asked:

1. What is the strength and direction of correlations relating perceived level of control and psychological well-being?
2. What are the contributions of perceived health and mobility to personal control and well-being?
3. How do the demographic variables of age, gender, and length of stay in nursing homes relate to perceived levels of control and well-being?

Conceptual Framework

The conceptual framework for this study was drawn from the potential relationships among the variables of perceived personal control, as a dimension of autonomy, perceived psychological well-being, and levels of health and mobility. Table 1 lists the variables of interest for this study.

Table 1. Variables of Interest

Variables			
Perceived Personal Control	Perceived Psychological Well-Being	Levels of Health	Levels of Mobility

The psychological dimension of autonomy relates to control over one's environment and choice of options (Hofland, 1990). For purposes of this study personal control was used as a proxy measure for the construct of autonomy.

The relationship between personal control and psychological well-being in nursing home elders has been extensively studied (Ryden, 1985; Bowsher, 1990; Reid & Ziegler, 1980; Bowsher & Gerlach, 1990; Ryff, 1989). According to Ryff, for example, autonomy is essential to positive psychological well-being. Reid and Ziegler also found desired control was correlated with psychological well-being and determined that those elders who feel more in control are better adjusted. Psychological well-being may be maintained by helping elders continue to control situations or increased by promoting control (Bowsher & Gerlach, 1990).

Personal control and psychological well-being are not only interrelated but may also be affected by and affect other important aspects of the daily lives of institutionalized elders. For example, the relationships of health and mobility to personal control and well-being were well documented (Bowsher & Gerlach, 1990; Lawton, 1983; Bowsher, 1990; Ryden, 1984; Ryden, 1985; Hofland, 1990; Heidrich, 1993; Rodin, 1986; Heidrich & Ryff, 1993). Psychological well-being may be fostered by promoting and maintaining the physical health of residents (Bowsher & Gerlach, 1990). Physical health, often equated with functional health by the elderly, has been positively related to perceived personal control (Bowsher, 1990; Ryden, 1984). A positive association between perceived control and the motivation to perform physical and cognitive tasks has also been suggested. Because impaired cognition and diminished functional status have been identified as two of the most important indicators for nursing home placement, this relationship obviously warrants further study (Bowsher, 1990).

The conceptual framework was suggested by the literature on autonomy and personal control. The constructs of autonomy, personal control, psychological well-being, health, and mobility comprised the framework within which to study nursing home residents. The literature supported these concepts as paramount in the lives of elders affecting many aspects of their daily functioning.

Definitions

1. Autonomy refers to human agency free of outside intervention and interference and in this study was defined as control of decision-making and other activity by the individual (Collopy, 1988).
2. Personal control was defined as the relatively stable belief that one has the ability to influence the environment or has the behavioral potential to elicit from the environment things that are of value (Rotter cited in Bowsher, 1990).
3. Psychological well-being was described as positive psychological functioning consisting of six dimensions: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth (Ryff, 1989; Heidrich & Ryff, 1993; Heidrich, 1993).
4. Perceived health was defined as subjective or self-rated physical health based on such factors as: functional status, number of prescription medications taken, and known illnesses (Schultz, Mittelmark, Kronmal, Polak, Hirsch, German, & Bookwala, 1994).
5. Mobility was defined as the functional aspect of health and measured by the ability to carry out the physical self-care activities of daily living such as: bathing, eating, toileting, and grooming (Bowsher, 1990; Jirovec & Maxwell, 1993).

CHAPTER 2

LITERATURE REVIEW

The review of literature for this study encompassed twenty years of research from psychological, legal, medical, and nursing resources. Due to the extensive nature and the number of concepts and variables included in the study, the review was divided into four sections. The first section provided a perspective on the nature and scope of aging and institutionalization. The second section focused on literature related to autonomy and personal control. Psychological well-being was discussed in a third section and, finally, the variables of health and mobility were addressed.

Aging and Institutionalization

The relocation of growing numbers of elderly to nursing homes is based on the fact that the number of elderly persons is increasing in today's society. There are more Americans over 65 years of age than any other time in history and the average age is steadily increasing (Abrams & Berkow, 1990). Current statistics show that 12.6% of the population in the United States is 65 and older and 4.9% of that age group, at any given time, live in nursing homes (U.S. Bureau of the Census, 1993). Montana's group of citizens 65 years of age and older accounts for 13.3% of the total population in Montana and 6% of that group reside in nursing homes (U.S. Bureau of the Census, 1993).

There are many factors that influence elders' decisions to enter nursing homes. Living alone is one contributor to relocating to long-term care facilities. More than eight million elderly live alone in the United States and in Montana, 32,419 elders, 30% of the population of 65 and older, live alone (U.S. Bureau of the Census, 1993). The elderly may realize that it is no longer safe to live alone or family members may determine that this is so. Family members are usually responsible for most of the caregiving in the home and their availability to provide care decreases over time; in fact, the children of older individuals may themselves be elderly. Other factors that contribute to entering institutions are decreased strength and mobility, failing senses, progressive deterioration of physiological functions due to chronic illness, and lack of social support. These factors, along with increased individual incidence of disease, increase the demand of older persons for institutional services (Abrams & Berkow, 1990).

Circumstances leading to relocation, the meaning attached to the changes precipitating the relocation, and the response to the relocation are unique to each individual (Young cited in Daniels, 1994). Since nursing home admissions usually occur at a vulnerable time in life and frequently are associated with negative stereotypes, entering a nursing home may be the most significant relocation in the life of the elderly person (Damon, Mikhail, Porter, & Clinton cited in Daniels, 1994). Studies concerned with mitigating the negative consequences of relocation often focus on areas of perceived personal control and well-being (Bowsher & Gerlach, 1990; Smith & Brand cited in Daniels, 1994).

Autonomy and Personal Control

The recognition and promotion of autonomy may increase an individual's quality of life and contribute to dignified care in long-term facilities, yet little attention has been given to this construct in the nursing home setting (Cohen, 1988; Ambrogi & Leonard, 1988). Nursing homes are often regarded by many elderly persons as a major threat to autonomy (Cohen, 1988; Jameton, 1988).

The threat to autonomy (operationalized as personal control) in nursing homes always exists (Ryden, 1985). Nursing homes may provide care based on the medical model which tends to be paternalistic and in which autonomy is not an indigenous value (Hofland, 1988). Also, "personal control tends to be compromised for nursing home residents for many reasons, including characteristics of the residents, the staff, the programs, public policies governing nursing homes, and the physical setting" (Kane, Freeman, Caplan, Aroskar, & Urv-Wong, 1990, p. 69).

Issues related to autonomy take on increased importance in long-term care facilities because of the environment (Ryden, 1984). For example, there is an ongoing dynamic between security and autonomy for older persons experiencing serious losses (Nystrom & Segesten, 1994). Because security is purchased at the cost of a reduction in autonomy and inasmuch as rules and regulations ensure safety and security, the result is often decreased choices. Furthermore, research indicates that a social ecology exists in nursing homes that supports behaviors of dependent personal maintenance. In fact, in a study by Baltes, Honn, Barton, Orzech, & Lago in 1983, it was concluded that independent behaviors by residents received either no response or an ambiguous

response from staff. As part of a larger study, Ryden (1985) examined the effects of the environment on the perception of control by nursing home residents and caregivers. The physical, organizational, and interpersonal aspects of the environment were all found to contribute to decreased feelings of autonomy. Results also indicated that caregivers were the most important aspect of the interpersonal environment because they had the opportunity to influence objective (actual) extent of control as well as perceived control (Ryden). Long-term care facilities are the almost exclusive environment for many residents and have the potential to exert a powerful influence on perceived control (Ryden). In these settings care can slide toward control, not from malevolence but simply from the dynamic of powerful and resourceful professionals interacting with vulnerable and resource-weak clients (Collopy, 1988). Thus the unequal power distribution among employees and residents may contribute to a decline in personal control.

A variety of conceptual frameworks have been applied to the concepts of autonomy and personal control. For example, the operant learning model was used as the conceptual framework in a replication study of elderly nursing home residents (Baltes et al. , 1983). The study focused on behavioral interactions between residents and their social environment and how the interactions promoted or reduced independent behavior. Another example was Nystrom and Segesten's (1994) study of powerlessness conceptualized in a framework that focused on different types of power, autonomy, helplessness, and empowerment. The personal control framework found in another study of nursing home elders was based on Rotter's social learning theory

that postulates the potential for a behavior to recur is based on the individual's expectancy that behavior will elicit a positive response (Bowers & Gerlach, 1990). Yet another theoretical framework derived from Rotter was the locus of control framework. Aasen's 1987 study, for example, focused on interventions to facilitate personal control based on whether an individual had an internal or external locus of control.

Two quantitative instruments frequently used to measure personal control were the Situational Control of Daily Activities (SCDA) and the Locus of Desired Control (LDC) Measure. The instruments have been applied in the nursing home setting or with the elderly population and have proved reliable and valid. The SCDA was a tool specifically developed for the measurement of perceived control in the daily activities of elderly persons in institutional settings. The strength of this tool was its open-ended nature that considered the subjective value of personal control and helped to elicit information emphasizing patient's wishes and goals that could then be used in the care plan (Chang, 1978). Ryden (1985) utilized the measure in her studies of environmental support for autonomy in nursing homes and the relation of perceived control to resident morale. Mentzer and Schorr (1986) in a study of 40 women in an extended care facility found the SCDA measure to be appropriate for their study of perceived control and time. Results of the study indicated residents who had been institutionalized for longer periods of time perceived themselves as determining control over their daily activities.

The LDC Measure used in studies of elderly persons contained an expectancy subscale that measured perceived control. The measure was based on a self-report rating of the desirability of 35 possible outcomes and the expected control of achieving those 35 outcomes (Reid & Ziegler, 1981). The scale was not developed specifically for use with institutionalized elders, but has been tested with senior citizens in various settings (Ziegler & Reid, 1983; Bowsher, 1990; Bowsher & Gerlach, 1990)

Psychological Well-Being

Psychological well-being has been of interest to students of aging for some time and has been supported in the literature as a primary contributor to perceived level of control (Bowsher & Gerlach, 1990; Ziegler & Reid, 1983). The degree and nature of an individual's desire for and a sense of control may vary with their sense of well-being. Therefore, the relationship between a sense of control and psychological well-being among a population experiencing extensive social, physical, and economic decline was an important issue to study (Ziegler & Reid, 1983). As of 1981, Reid and Ziegler felt little had been done to examine the relationship between personal control beliefs and psychological well-being among the elderly despite the proliferation of research on the concept of control itself. Therefore, these authors and others, have helped revive interest in the relationship of control and well-being.

Theoretical frameworks used for the study of psychological well-being included Rotter's social learning theory (described earlier) also utilized in studies of

personal control. The framework of participatory control, emphasizing relationships with others, was utilized in a study of well-being by Stirling and Reid (1992).

Bowsher and Gerlach (1990) utilized a convenience sample of nursing home residents to administer the Life Satisfaction Index and the Bradburn Affect Scale as measures of psychological well-being. Results showed the factors of personal control and self-rated health as main indicators of well-being. A study by Stirling and Reid (1992) attempted to increase the well-being of elderly residents in long-term institutions by altering the quality of care-giving behaviors of nurses. Instruments representing dimensions of the environment, control, and self-concept measures were administered to the residents. Results indicated that well-being can be improved by altering the care-giving attitudes and behaviors of nurses. A Finnish study by Taival & Raatikainen (1993) of nursing home residents also indicated staff development could positively affect the well-being of the residents.

Predictors of well-being identified in a 1978 study (Noelker & Harel) of nursing home residents with an average age of 81 years were the subjective factors of (a) desire to live in the facility, (b) feelings about staff, (c) importance attributed to food, (d) fulfillment of desire for visitors, and (e) self-rated health. These predictors were determined by the administration of morale and life satisfaction measures to 125 residents of fourteen nursing homes.

An older instrument used to measure well-being was the General Well-Being Scale developed by Dupuy in 1973 at the National Center for Health Statistics (Larson, 1978). It was a multidimensional, self-administered mental inventory developed for use

in community surveys that found applications in gerontological research. The dimensions measured were depressed mood, tension state, general well-being, self-control, general health, and vitality. Later instruments that also defined well-being as multidimensional included the Bradburn Affect Balance Scale and the Life Satisfaction Index (Larson, 1978). Not all scales addressed well-being as a multidimensional construct. Havighurst and Albrecht's (1953) scale of happiness and Kutner's (1956) Morale Scale both were based on a conceptualization of well-being as unidimensional (cited in Larson, 1978).

A major research issue was whether well-being could be represented by single dimension concepts such as morale and happiness or whether it is a multidimensional construct and should be measured as such (Lawton, 1983). Happiness, as a balance between positive and negative affect, appeared to be the main unidimensional indicator for psychological well-being in earlier literature (Reid & Ziegler, 1981). More recently Ryff (1989), Levin (1994), and Heidrich (1993) have emphasized the construct of psychological well-being as multidimensional. Ryff (1989) identified six new dimensions of psychological well-being as (a) self-acceptance, (b) positive relations with others, (c) autonomy, (d) environmental mastery, (e) purpose in life, and (f) personal growth. It was Ryff's opinion that the field of psychological research had failed to consider some essential features of the concept found in the classical literature of psychology and philosophy. Instruments developed to tap the six dimensions were self-report measures tested with various age groups including a group

of older adults whose mean age was 75. The instruments revealed acceptable preliminary properties.

Health and Mobility

The variables of health and mobility were demonstrated to have a relationship with personal control and psychological well-being. Heidrich (1993) investigated the relationship between physical health and well-being in a group of 240 elderly women with the average age of 73 years. Self-report measures were used to assess dimensions of physical health and Ryff's measures of personal growth, autonomy, purpose in life, and positive relations with others were used to measure well-being. Results indicated that lower levels of well-being were found in women with poor health. Women defined health in this study in terms of symptomatology and interference with ability to function in daily life.

In a 1993 study, Heidrich and Ryff looked at physical and mental health in later life and their relationship to well-being. Again the study consisted of elderly women. Health status was measured by self-report measures, mental health was measured by depression and anxiety instruments, and well-being measured by life satisfaction and affect scales. It was concluded that women in the study generally reported favorable mental health despite increasing physical ailments.

The final study to be discussed relating to health and well-being was carried out by Storandt, Wittels, and Botwinick (1975). They measured cognitive and psychomotor functioning, personality and morale, health status, and activity level in a

group of 122 subjects living in elderly residential complexes. They found that measures of cognitive and psychomotor function were more predictive of well-being over time than personality, health, or activity.

Perceived control and intellectual functioning was the focus of a longitudinal study by Lachman and Leff (1989). The original group of 106 elderly adults in 1981 diminished to 63 in 1986. Over five years of the study the main change involved the belief that powerful others' control over intelligence significantly increased. In other words elders believed that other people were better able to do things for them and became dependent on others to solve cognitive problems in later life.

A variety of theoretical frameworks served the above studies. The framework for Heidrich's study (1993) of elderly women was derived from a life-span developmental view of aging and psychological well-being. The theory emphasized developmental tasks faced at different phases in the life cycle, personality changes, and motivations for personal fulfillment and mental health (Heidrich, 1993). The theories of social integration, social comparisons, and self-discrepancy served as the framework for Heidrich and Ryff's study (1993). These theories provided for an understanding of how the self-system might mediate the relationship between physical and mental health losses and psychological well-being in old age.

CHAPTER 3

METHODOLOGY

Design

A correlational descriptive survey was utilized to collect quantitative and qualitative data in this field study. This type of survey allowed the researcher to assess the extent to which levels of one phenomenon corresponded to levels of another (Woods & Catanzaro, 1988). Wilson refers to a descriptive study as a factor-naming/factor-searching study with the emphasis on discovery. They are the blueprint and the "care plan" for research (Wilson, 1987). This study employed interviews, questionnaires, and analysis of data.

Qualitative data, as anecdotal information, was also collected in this study. Anecdotal information consisted of quoted words, phrases, and sentences from participants. Through the skillful use of quotes, writers can add to the aesthetic value of research and draw more attention to the voices of people who might otherwise remain unheard. Getting close to the human experience elicits support for the researcher's conclusions and a feeling for the researcher's participants (Sandelowski, 1994).

The selection of this design was based on the aim of the study which was to examine the relationships among personal control, psychological well-being, and levels

of health and mobility in elderly residents of nursing homes. The variables of interest for this study were presented in Table 1 on page 4. The research questions for this study were stated as follows:

1. What is the strength and direction of correlations relating perceived personal control and psychological well-being?
2. What are the contributions of perceived health and mobility to personal control and well-being?
3. How do the demographic variables of age, gender, and length of stay in nursing homes relate to perceived levels of control and well-being?

The variables and dimensions to be measured and the corresponding instruments are represented in Table 2.

Table 2. Variables, Dimensions, and Instruments

Variables	Instrument
1. Personal Control	
a. situational control	Situational Control of Daily Activities (SCDA) scale (Chang, 1978)
b. desired control	Desired Control Measure (Reid & Ziegler, 1980)
2. Psychological Well-Being	Scales of Psychological Well-Being (Ryff, 1989) and anecdotal data
a. as autonomy	
b. as environmental mastery	
c. as personal growth	
d. as positive relations with others	
e. as purpose in life	
f. as self-acceptance	

3. Levels of Health	General Health Scale (Weinert, 1993) and anecdotal data
4. Levels of Mobility	Minimum Data Set and anecdotal data
5. Demographics	Resident's chart
a. age	
b. gender	
c. length of stay	

Setting and Sample

The target population for this study included elderly persons residing in rural nursing homes. The six nursing homes for this study were located in Lewis and Clark, Gallatin, and Broadwater counties. The homes had an average of 80 beds per facility and offered intermediate and skilled care. All of the homes were Medicare and Medicaid approved.

The accessible population for this particular study was a convenience sample of 30 subjects. Power analysis to estimate sample size was completed with a non-directional alpha of .05 for the statistical tests. A large (.50) to medium (.30) correlational effect size required a sample size of 84 to 28 participants in order to obtain the conventional power of .80 (Polit & Sherman, 1990; Cohen, 1977). Although a convenience sample limits the generalizability of the results it was important for the researcher to access individuals who fit the geographical and time constraints of this study. It was anticipated however that, because of the homogeneity of the population in this region, subjects in the sample would be fairly typical of the population of nursing home residents in Montana.

Participants were at least 65 years of age and had lived in the nursing home for at least three months. Three months gave the resident enough time to settle in and become acquainted with the home's rules and regulations. The residents selected for the study had minimal hearing deficits, the ability to read and write English, cognitive understanding of the purpose of the study, and the ability to understand and give informed consent. Residents were excluded if they had an illness that interfered with cognitive abilities. Individuals who were in the terminal phase of an illness also had to be excluded due to the expected length of time for data collection.

Data Producing Instruments

Multiple methods of data collection, or triangulation, enhance the credibility and precision of research (Woods & Catanzaro, 1988). In this study, data from closed-ended questionnaires were analyzed and compared with anecdotal information from interviews in order to substantiate, clarify, and amplify the quantitative data.

The variables and dimensions of personal control and psychological well-being were assessed by quantitative instruments chosen from nursing and psychological literature. In the case of well-being, anecdotal data from interviews were also used. Original sources were utilized to make the final determination for appropriateness of instruments to this particular study and its purpose. The variables of health and mobility were assessed by information derived from resident's responses to the General Health Scale, the Minimum Data Set in the patient's record, and anecdotal data.

Personal Control

The variable of personal control was measured by two instruments: (a) a slightly modified version of Betty L. Chang's Situational Control of Daily Activities (SCDA) tool, and (b) David W. Reid and Michael Ziegler's Locus of Desired Control (LDC) Measure (1980). The SCDA was developed by Chang in 1978 and modified by her in 1995 to measure the perceived control of situations in the daily activities of elderly persons in institutional settings. Chang believed the elderly person's control of their immediate situations may be viewed as the way they manage their daily round of activities and the basic resources of time, space, and assistance. The modified tool consisted of a semistructured interview including 37 items. Items such as "to what extent do I determine when I eat" were related to the resident's perceived control of nine daily activities. The daily activities included ambulating, dressing, eating, grooming, toileting, treatments, group participation, one to one interaction, and solitary activities. The responses to the items were scored on a Likert scale ranging from all of the time by myself (1) to all of the time by others (5). Chang (1978) found test-retest reliability correlations for the older version were .96 and intercoder reliability coefficients were 1.0. The newly revised version, used in this study, had no reliability data available.

Reid and Ziegler's LDC Measure was developed in 1980 for research into the psychological adjustment of senior citizens. The original LDC Measure was based on self-report rating of the desirability of 35 possible outcomes and the expected control over achieving those 35 outcomes. An example of an item related to desired control

was "how desirable is it for you to see your family whenever you want" which was scored on a five-point Likert scale of very desirable (5) to very undesirable (1). The corresponding item on the expected control measure would be "despite my circumstances, I can see my family when I want" which was then similarly scored from strongly agree (5) to strongly disagree (1). The shortened 16-item scales, which were used in this study, was administered by Reid and Ziegler (1981) to a group of 135 senior citizens to determine their viability. When compared with aggregated data from 469 previous cases the shortened scales exhibited internal consistencies of .80 for the Desired Control-Short Form and .73 and .76 for the Desired and Expectancy subscales respectively. The items selected for the short form had high item-total correlations within the longer scale and, as a group, they were representative of the variety of categories of reinforcers found in the original survey (Reid & Ziegler).

Psychological Well-Being

A new instrument developed by Carol D. Ryff (1989) was used to measure the variable of psychological well-being. Ryff reported single-item indicators of psychological well-being were less reliable than multi-item scales. Ryff also found many of the previous instruments used to measure well-being were developed for purposes other than defining the basic structure of the concept (Ryff, 1989).

This instrument reflected the conceptual definitions of six dimensions of psychological well-being Ryff derived from her literature review. The six dimensions were: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. A 20-item structured self-report

instrument that could be used with both sexes and adults of any age was developed for each of the six dimensions. Participants rated themselves on each item according to a scale ranging from strongly agree (6) to strongly disagree (1). Responses to negatively scored items were reversed in the final scoring procedure so that high scores indicated high self-ratings on the dimension assessed. A short form of each scale consisting of fourteen items was used in this study.

Internal consistency coefficients of each scale with its own 20-item parent scale were found by Ryff to be: autonomy .83, environmental mastery .86, personal growth .85, positive relations with others .88, purpose in life .88, and self-acceptance .91. Correlational coefficients of each scale with its own 20-item parent scale were: autonomy .97, environmental mastery .98, personal growth .97, positive relations with others .98, purpose in life .98, and self-acceptance .99.

Anecdotal information was also obtained and analyzed to describe the concept of psychological well-being as perceived by the residents. Residents were asked, "What kinds of things contribute to your sense of well-being in the nursing home?"

Levels of Health

The General Health Scale (C. Weinert, personal communication, March 3, 1995) was presented to residents to allow them to rate their perceived health. Responses to questions such as "during the past three months how much has your health worried or concerned you" were scored on a five point Likert scale (e.g., not at all, a little, somewhat, a great deal, or a very great deal). Anecdotal data was encouraged by asking the resident to elaborate on question one of the General Health Scale. For

example, if the resident answered "excellent" then the investigator asked "what makes you say your health is excellent".

Levels of Mobility

An overall mobility score was derived from the mobility section (ADL's) of the Minimum Data Set in the patient's chart. Anecdotal data was also provided by residents in response to the question "how well would you say you are able to get around on a typical day". (Probe: "Do you need any help at all or are you pretty much self-sufficient ?")

Demographic Data

This data included age, gender, and length of stay. This information was obtained from the participant's records.

Methods of Procedure

The first step in the researcher's methods of procedure was to obtain approval for the proposal from the College of Nursing's Human Subjects Review Committee. After approval, the researcher met with the administrator of each nursing home to gain entry. The administrators received a letter (a) asking permission to access the residents, (b) describing the details of the study, and (c) presenting the credentials and university affiliation of the investigator. The administrators were asked to sign a consent form verifying understanding of the study and granting permission to the researcher to conduct the study at their nursing home.

When permission to access the residents was given, a list of possible participants was developed. The inclusion and exclusion criteria was taken into consideration when producing the list of possible participants from patient's records.

Each potential subject was approached by the investigator and given an introductory letter and consent form. The letter contained credentials and university affiliation of the investigator, a brief explanation of the study, and a contact phone number for the investigator. The consent form included the study's purpose, procedures, benefits and risks, costs and reimbursement, and assurances regarding confidentiality, anonymity, and the right to withdraw. The consent form was presented or read to each potential subject and a verbal consent was obtained. A waiver of signed consent was obtained based on the belief that a written consent form for this generation tends to represent a legal document that implies serious risk or potential threat (Ryden, 1984).

After the consent was obtained, a time and date was designated by the researcher and the participant to accomplish the task of filling out the questionnaires. Residents were asked to complete the questionnaires in one 45-60 minute session or two 30 minute sessions if the resident preferred, or if the interview took longer than expected. The setting was a place chosen by the resident which provided privacy and comfort. The researcher sat next to the resident to answer any questions and, while the resident looked on, to read questions and mark answers for those unable to read the questionnaire's print size.

Protection of Human Subjects

Protecting the rights of human subjects who are involved in research has become a high priority for professional communities (Wilson, 1987), therefore, several considerations were presented that were related to this study. Participants were approached by the investigator to determine if they were interested in hearing about the study. Residents were told that the researcher was studying aspects of well-being in nursing home residents. The potential participants in this study were given all relevant information. This information included the credentials of the investigator, purpose of the study in simple language, potential contribution to nursing's body of knowledge, time involved, benefits and risks, the right to self-determination, privacy, anonymity, and confidentiality.

There were no evident direct benefits of participating in this study. An indirect benefit may have been the self-satisfaction participants felt from contributing to the science of nursing by participating in the research. Potential risks associated with this study were few. Due to the number of questions involved, participants may have experienced fatigue and the size of print may have caused eye strain. These risks were addressed by offering two shorter sessions instead of the 45-60 minute initial time and the assistance of the investigator in reading and recording the answers for them.

Participation in the study was on a voluntary basis with no monetary cost or reimbursement to residents. Participants were assured that there were no adverse repercussions resulting from their refusal to participate or withdrawal from the study. If the resident agreed to participate, confidentiality was assured through coding of

questionnaires and materials being placed in a locked file cabinet at Montana State University for five years to be accessed only by the investigator and her Committee Chairperson.

Montana State University's College of Nursing's Human Subjects Review Committee reviewed the study proposal for the maintenance of ethical standards and protection of human subjects and approved the study on March 20, 1995. Permission to use the instruments was received from each of the authors.

Data Analysis

The current descriptive survey was a Level Two (Brink & Wood, 1994) study which explored the relationships among several variables. For those relationships that were not apparent, a correlational matrix was developed and examined. Level Two studies are constructed from existing knowledge and the research questions built on the results of studies at the first level. When measurable variables have been identified, then relationships and statistical significance can be explored .

Correlational analysis was used to determine the nature and degree of significance of the relationships among the variables of interest. The strength of the correlation was determined by using Pearson's r at a 0.05 level of significance. Since several variables were tested, multiple regression was also used. Multiple regression is a multivariate statistical procedure which describes the extent, direction, and strength of a relationship between several independent variables and a single dependent variable (Woods & Catanzaro, 1988).

The qualitative portion of the study derived from anecdotal data was used to substantiate, clarify, and amplify previous measures and information. Quoted material is used to provide evidence for some point the researcher wants to make or to illustrate or provide a more concrete example of an idea helping to support the researcher's conclusions (Sandelowski, 1994). Qualitative analytical techniques such as clustering and categorizing were used in this study to determine if any categorical variables emerge. If categorical variables emerged, Chi-Square distribution was done where appropriate to determine further association between these variables.

The Statistical Package for the Social Sciences (SPSS) was used to compute the various tests. The data was stored on the computer for easy retrieval.

CHAPTER 4

RESULTS

The results were organized into three sections. The first section presents the characteristics of the sample. The descriptive statistics and qualitative results that related to specific variables are presented in section two. Correlational results from Pearson r and multiple regression analysis according to the research questions are discussed in the last section. The instruments used to measure the variables of interest (i.e., personal control, psychological well-being, levels of health and mobility) were described in Chapter 3.

Characteristics of Sample

The demographic characteristics of the participants are summarized in Table 3. Of the 30 participants, 23 were female, which represented 76.7% of the sample. Residents ranged in age from 65 to 96. Within this range, 13.3% were between 65 and 74, 30% were between 75 and 84, 53.4% were between 85 and 94, and 1 participant was over 95. The length of stay in the nursing home ranged from 3 months to 84 months. Over half of the participants (59.9%) had been in the nursing home for less than 2 years.

Table 3. Demographic Characteristics of Participants (N=30)

Variable	f	%
<u>Gender</u>		
Female	23	76.7
Male	7	23.3
Mean = 1.2, SD = .43		
<u>Age</u>		
65-74	4	13.3
75-84	9	30.0
85-94	16	53.4
95-100	1	03.3
Mean = 84.4, SD = 8.38		
<u>Months in Home</u>		
3-12	10	33.3
13-24	8	26.6
25-36	6	19.9
37-84	6	19.8
Mean = 23.9, SD = 18.42		
<u>Length of Interview in Min.</u>		
40-60	10	33.3
61-80	15	50.0
81-100	4	13.3
101-120	1	03.3
Mean = 70.2, SD = 16.62		

The length of time for interviews ranged from 42 to 120 minutes. The majority of participants (83.3%) took 80 minutes or less to complete the interview. One person required two hours to complete the questionnaires.

Descriptive Results

Scale Reliabilities

According to Woods and Catanzaro (1988), the most common method to estimate internal-consistency reliability is Cronbach's alpha, which is based on the intercorrelation of all items in a scale examined simultaneously. When the measure is being used for group-level comparisons, the reliability coefficient typically should exceed .7 for new scales and .8 for mature scales (1988). The reliabilities for this study are presented in Table 4.

Table 4. Reliability Coefficients of Instruments and Subscales

Instrument	Subscale	Alpha
Situational Control of Daily Activities		.83
Locus of Desired Control Measure	LDC1 (Desire)	.79
	LDC2 (Expectancy)	.65
Psychological Well-Being	PWB (Composite)	.71
	PWB1 (Autonomy)	.23
	PWB2 (Environmental Mastery)	.56
	PWB3 (Personal Growth)	.71
	PWB4 (Positive Relations)	.52
	PWB5 (Purpose in Life)	.78
	PWB6 (Self-Acceptance)	.86

Personal Control

The Situational Control of Daily Activities (SCDA) instrument indicated none of the residents felt he or she could determine the amount of control they had on their daily activities (i.e., ambulating, dressing, eating, grooming, toileting, treatments, group participation, one to one interaction, and solitary activities) by themselves, all of the time. Nor did any resident feel the control of their activities was determined entirely by others all of the time. Resulting scores ranged from 38 to 91, with a mean of 60.4. Lower scores on the SCDA indicated situational control was perceived to be determined by the resident all of the time. Higher scores indicated greater control by others as perceived by the resident. Seventy-three percent of the residents felt they had control of their activities the majority of the time. The descriptive statistics pertinent to the personal control instruments are displayed in Table 5.

Table 5. Descriptive Statistics of Personal Control Instruments

Instruments	Mean	SD	Range	Potential Min/Max Scores
SCDA	60.4	13.15	38-91	32-160
LDC1 - Desire	63.6	7.18	45-74	16-80
LDC2 - Expectancy	55.8	4.90	46-64	16-80

The Locus of Desired Control (LDC) - Short Form contained two subscales of 16 items each and as seen in Table 5 these included the desire and the expectancy subscales. The desire subscale (LDC1) measured the desirability and importance to the resident of attaining certain outcomes. The expectancy subscale (LDC2) measured the

beliefs that the resident has the control to achieve desired outcomes. Higher scores on the desire subscale indicated the increased importance of attaining various outcomes. Resulting scores ranged from 45 to 74 for the entire subscale with a mean of 63.6. The percent of individuals who felt it was important to attain stated outcomes was 90%. The expectancy subscale's higher scores indicated expected control over achieving the desired outcomes. Lower scores meant the resident did not have enough control to achieve the desired outcomes. The percent of individuals who believed they could attain the outcomes was 80%. Resulting scores ranged from 46 to 64 with a mean of 55.8. A total Desired Control score, referred to as the cross-products total (CPT), was obtained by multiplying the score of each desire item with the score in the parallel expectancy item and then summing these cross-products.

Psychological Well-Being

The Scales of Psychological Well-Being (PWB) included six separate 14-item scales that measured different aspects of well-being. Descriptive statistics for the scales are displayed in Table 6. The qualitative portion of the study that pertained to well-being is also discussed.

The composite score included data from all six PWB scales. Results showed 90% of the residents generally had high self-ratings on the six scales (mean = 367.2).

