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
© Copyright by Jocelynn Roberta Waldron (1996)

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.
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
Bozeman, Montana

April 1996
APPROVAL

of a thesis submitted by

Jocelynn Roberta Waldron

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.

Kathleen Chafey, Ph.D., R.N.  Kathleen Chafey  May 6, 1996
(Signature)  Date

Approved for the Department of Nursing

Kathleen Chafey, Ph.D., R.N.  Kathleen Chafey  May 6, 1996
(Signature)  Date

Approved for the College of Graduate Studies

Robert L. Brown, Ph.D.  Robert Brown  5/10/96
(Signature)  Date
STATEMENT OF PERMISSION TO USE

In presenting this thesis in partial fulfillment of the requirements for a master's degree at Montana State University, I agree that the Library shall make it available to borrowers under the rules of the Library.

If I have indicated my intention to copyright this thesis by including a copyright notice page, copying is allowable only for scholarly purposes, consistent with "fair use" as prescribed in the U.S. Copyright Law. Requests for permission for extended quotation from or reproduction of this thesis in whole or in parts may be granted only by the copyright holder.

Signature: [Signature]
Date: [April 25, 1996]
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.

Jocelynn worked as a staff nurse on the medical floor of St. Peter's Hospital for a year following graduation. She is currently employed as a medical floor staff nurse at Fort Harrison V.A. Hospital in Helena.

She is a member of Sigma Theta Tau International. Her special area of interest concerns the role of ethics in chronic care, particularly with the elderly population.
ACKNOWLEDGEMENTS

I would like to take this opportunity to thank the following people for their support and guidance on this important project.

To my committee members, Dr. Kay Chafey, Dr. Therese Sullivan, and Professor Mary K. Dempsey-Noreika for their expertise, guidance, and patience throughout the project.

To Lynn Taylor for helping with the myriad of thesis "deadlines and details" and Mary Sneppinger for her assistance with data analysis.

To my immediate and extended family members, friends, and co-workers who voiced support throughout the project. To one friend in particular, Becki Andersen, who joined me in this venture three years ago with the same vision and determination.

To my long-time companion and husband, Mike, who has always encouraged me in my educational endeavors and has been there in times of tears and joy. This project would not have been possible without him by my side.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF TABLES</td>
<td>x</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>xii</td>
</tr>
<tr>
<td>1. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Background and Significance</td>
<td>1</td>
</tr>
<tr>
<td>Purpose and Research Questions</td>
<td>3</td>
</tr>
<tr>
<td>Conceptual Framework</td>
<td>4</td>
</tr>
<tr>
<td>Definitions</td>
<td>6</td>
</tr>
<tr>
<td>2. LITERATURE REVIEW</td>
<td>7</td>
</tr>
<tr>
<td>Aging and Institutionalization</td>
<td>7</td>
</tr>
<tr>
<td>Autonomy and Personal Control</td>
<td>9</td>
</tr>
<tr>
<td>Psychological Well-Being</td>
<td>12</td>
</tr>
<tr>
<td>Health and Mobility</td>
<td>15</td>
</tr>
<tr>
<td>3. METHODOLOGY</td>
<td>17</td>
</tr>
<tr>
<td>Design</td>
<td>17</td>
</tr>
<tr>
<td>Setting and Sample</td>
<td>19</td>
</tr>
<tr>
<td>Data Producing Instruments</td>
<td>20</td>
</tr>
<tr>
<td>Personal Control</td>
<td>21</td>
</tr>
<tr>
<td>Psychological Well-Being</td>
<td>22</td>
</tr>
<tr>
<td>Levels of Health</td>
<td>23</td>
</tr>
<tr>
<td>Levels of Mobility</td>
<td>24</td>
</tr>
<tr>
<td>Demographic Data</td>
<td>24</td>
</tr>
<tr>
<td>Methods of Procedure</td>
<td>24</td>
</tr>
<tr>
<td>Protection of Human Subjects</td>
<td>26</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>27</td>
</tr>
</tbody>
</table>
TABLE OF CONTENTS - Continued

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>4. RESULTS</strong></td>
<td>29</td>
</tr>
<tr>
<td>Characteristics of Sample</td>
<td>29</td>
</tr>
<tr>
<td>Descriptive Results</td>
<td>31</td>
</tr>
<tr>
<td>Scale Reliabilities</td>
<td>31</td>
</tr>
<tr>
<td>Personal Control</td>
<td>32</td>
</tr>
<tr>
<td>Psychological Well-Being</td>
<td>33</td>
</tr>
<tr>
<td>Health and Mobility</td>
<td>36</td>
</tr>
<tr>
<td>Correlational Results</td>
<td>40</td>
</tr>
<tr>
<td>Research Question 1. What is the Strength and Direction of Correlations Relating Perceived Level of Control and Psychological Well-Being?</td>
<td>41</td>
</tr>
<tr>
<td>Levels of Control and Psychological Well-Being</td>
<td>41</td>
</tr>
<tr>
<td>Research Question 2. What are the Contributions of Perceived Health and Mobility to Personal Control and Psychological Well-Being?</td>
<td>42</td>
</tr>
<tr>
<td>Health, Mobility, and Personal Control</td>
<td>42</td>
</tr>
<tr>
<td>Health, Mobility, and Psychological Well-Being</td>
<td>45</td>
</tr>
<tr>
<td>Research Question 3. How do the Demographic Variables of Age, Gender, and Length of Stay in Nursing Homes Relate to the Perceived Levels of Control and Well-Being?</td>
<td>48</td>
</tr>
<tr>
<td><strong>5. SUMMARY AND DISCUSSION</strong></td>
<td>50</td>
</tr>
<tr>
<td>Summary</td>
<td>50</td>
</tr>
<tr>
<td>Discussion and Nursing Implications</td>
<td>51</td>
</tr>
<tr>
<td>Limitations and Recommendations</td>
<td>56</td>
</tr>
<tr>
<td>Conclusion</td>
<td>58</td>
</tr>
<tr>
<td>REFERENCES CITED</td>
<td>59</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS-Continued

## APPENDICES

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Instruments</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>Demographic Information</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td>Locus of Desired Control Measure</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>Chang's Situational Control of Daily</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>Activities Scale</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scales of Psychological Well-Being</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>General Health</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>Minimum Data Set</td>
<td>84</td>
</tr>
<tr>
<td>B</td>
<td>Introductory Letter Sent to Administrators/Directors of Nursing Homes</td>
<td>87</td>
</tr>
<tr>
<td>C</td>
<td>Nursing Home Consent Form</td>
<td>90</td>
</tr>
<tr>
<td>D</td>
<td>Introductory Letter to Potential Participants</td>
<td>92</td>
</tr>
<tr>
<td>E</td>
<td>Verbal Consent Form</td>
<td>94</td>
</tr>
<tr>
<td>F</td>
<td>Consent Letter to Use Instrument</td>
<td>97</td>
</tr>
<tr>
<td>Table</td>
<td>Page</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>1. Variables of Interest</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>2. Variables, Dimensions, and Instruments</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>3. Demographic Characteristics of Participants</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>4. Reliability Coefficients of Instruments and Subscales</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>5. Descriptive Statistics of Personal Control Instruments</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>6. Descriptive Statistics of Psychological Well-Being Scales</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>7. Contributions to Well-Being in the Nursing Home</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>8. Descriptive Statistics of Health and Mobility Instruments</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>9. Responses to Self-Rated Health</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>10. Table of Correlations</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>11. Intercorrelations Among Measures of Personal Control and Psychological Well-Being</td>
<td>41</td>
<td></td>
</tr>
<tr>
<td>12. Correlations Between Health, Mobility, and Personal Control</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>13. Regression of Situational Control on Dimensions of Well-Being, Mobility, and Control</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>14. Regression of Desire Subscale on Dimensions of Health and Well-Being</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>15. Regression of Expectancy Subscale on Dimensions of Health Well-Being</td>
<td>45</td>
<td></td>
</tr>
</tbody>
</table>
LIST OF TABLES—Continued

16. Correlations Between Health, Mobility, and Psychological Well-Being ................................................................. 45

17. Regression of Psychological Well-Being Dimensions on Health, Mobility, and Personal Control .............................. 46

18. Regression of Environmental Mastery on Age, Gender, and Length of Stay ...................................................................................... 49

19. Regression of Positive Relations with Others on Age, Gender, and Length of Stay ......................................................... 49
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

<table>
<thead>
<tr>
<th>Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Personal Control</td>
</tr>
<tr>
<td>Perceived Psychological Well-Being</td>
</tr>
<tr>
<td>Levels of Health</td>
</tr>
<tr>
<td>Levels of Mobility</td>
</tr>
</tbody>
</table>

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 (Baltet 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 (Bowsher & 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.
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

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

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

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

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

<table>
<thead>
<tr>
<th>Instruments</th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
<th>Potential Min/Max Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCDA</td>
<td>60.4</td>
<td>13.15</td>
<td>38-91</td>
<td>32-160</td>
</tr>
<tr>
<td>LDC1 - Desire</td>
<td>63.6</td>
<td>7.18</td>
<td>45-74</td>
<td>16-80</td>
</tr>
<tr>
<td>LDC2 - Expectancy</td>
<td>55.8</td>
<td>4.90</td>
<td>46-64</td>
<td>16-80</td>
</tr>
</tbody>
</table>

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).
Table 6. Descriptive Statistics of Psychological Well-Being Scales

<table>
<thead>
<tr>
<th>Scales</th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
<th>Potential Min/Max Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>PWB</td>
<td>367.2</td>
<td>24.82</td>
<td>310-405</td>
<td>84-504</td>
</tr>
<tr>
<td>PWBl</td>
<td>64.3</td>
<td>3.96</td>
<td>56-71</td>
<td>14-84</td>
</tr>
<tr>
<td>PWB2</td>
<td>60.4</td>
<td>5.54</td>
<td>47-69</td>
<td>14-84</td>
</tr>
<tr>
<td>PWB3</td>
<td>60.1</td>
<td>6.65</td>
<td>48-71</td>
<td>14-84</td>
</tr>
<tr>
<td>PWB4</td>
<td>65.4</td>
<td>4.16</td>
<td>56-72</td>
<td>14-84</td>
</tr>
<tr>
<td>PWBl</td>
<td>54.9</td>
<td>8.64</td>
<td>36-70</td>
<td>14-84</td>
</tr>
<tr>
<td>PWB6</td>
<td>61.9</td>
<td>8.08</td>
<td>38-71</td>
<td>14-84</td>
</tr>
</tbody>
</table>

Note. PWB - composite, PWBl - Autonomy, PWB2 - Environmental Mastery, PWB3 - Personal Growth, PWB4 - Positive Relations, PWB5 - Purpose in Life, PWB6 - Self-Acceptance.

The first subscale (PWBl) represented autonomy. High scores indicated self-determination and independence, ability to resist social pressures, behavior regulated from within, and existence of personal standards. Low scores represent concern about other's expectations, conformity to social pressures, and dependence on other's judgment. The resulting scores ranged from 56 to 71 with a mean of 64.3.

The second subscale (PWB2) represented environmental mastery. High scores implied a sense of mastery in managing the environment, control of external activities, and ability to choose contexts suitable to personal needs. Low scores implied difficulty in managing everyday affairs, inability to change/improve surroundings, and lack of sense of control over external world. The resulting scores ranged from 47 to 69 with a mean of 60.4.

The third subscale (PWB3) measured personal growth. High scores indicated a sense of growth and development, improvement in self over time, being open to new...
experiences, and realization of one's potential. Low scores represented a sense of personal stagnation, feeling bored and uninterested in life, and inability to develop new behaviors. The resulting scores ranged from 48 to 71 with a mean of 60.1.

The fourth subscale (PWB4) measured positive relations with others. High scores indicated the presence of satisfying relationships, empathy, affection, and intimacy with others, and an understanding of human relationships. The low scores represented few close relationships, difficulty to be warm and open, feelings of isolation, and unwillingness to compromise. The final scores ranged from 56 to 72 with a mean of 65.4.

The fifth subscale (PWB5) measured purpose in life. High scores indicated the presence of goals, feelings of meaning to present and past life, and objectives for living. Low scores indicated no meaning in life, few goals and aims, no purpose to past life, and no beliefs that give life meaning. The final scores ranged from 36 to 70 with a mean of 54.9.

The final subscale (PWB6) measured self-acceptance. High scores indicated a positive attitude toward life, acceptance of good and bad qualities of self, and positive feelings about past life. Low scores implied dissatisfaction with self, disappointed with past life, and wishes to be different. The resulting scores ranged from 38 to 71 with a mean of 61.9.

The qualitative results related to well-being were gathered from responses by the participants to the question "What kinds of things contribute to your sense of
well-being in the nursing home?" The five responses residents repeated most often were obtained through the clustering method and are presented in Table 7.

Table 7. Contributions to Well-Being in the Nursing Home

<table>
<thead>
<tr>
<th>People</th>
<th>Friendliness</th>
<th>Help</th>
<th>Caring</th>
<th>Sharing</th>
</tr>
</thead>
<tbody>
<tr>
<td>employees</td>
<td>laughter</td>
<td>waited on</td>
<td>choice to care for self if able</td>
<td>ideas</td>
</tr>
<tr>
<td>residents</td>
<td>acceptance</td>
<td>safety</td>
<td>activities</td>
<td>environment</td>
</tr>
<tr>
<td>friends</td>
<td>acknowledgment</td>
<td></td>
<td></td>
<td>family</td>
</tr>
</tbody>
</table>

People and friendliness were the most significant contributors to a resident's well-being in the nursing home. The category of people consisted of employees, other residents, and friends. Friendliness was expressed as laughter at situations in the home, acceptance of self by others, and acknowledgment of achievements. Help ranged from needs being met to safety issues (i.e., falls, frequent checks at night, knowing someone's close). Examples of caring included "nurses/aides doing things to make you feel good", "not getting hollered at", kindness, allowing choices, and providing activities. Sharing involved cognitive, physical, and emotional aspects.

Health and Mobility

Levels of health were measured with the General Health Scale (GH) which consisted of four questions. Mobility information was gathered from the MDS in the resident's record and concerned only those areas referencing mobility status. The descriptive statistical results for both are presented in Table 8. Qualitative results for each variable are presented following the descriptive portion of the results.
Table 8. Descriptive Statistics of Health and Mobility Instruments

<table>
<thead>
<tr>
<th>Instruments</th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
<th>Potential Min/Max Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>GH 1</td>
<td>2.7</td>
<td>.87</td>
<td>1-4</td>
<td>1-5</td>
</tr>
<tr>
<td>GH 2</td>
<td>2.4</td>
<td>1.16</td>
<td>1-5</td>
<td>1-5</td>
</tr>
<tr>
<td>GH 3</td>
<td>1.8</td>
<td>1.21</td>
<td>1-4</td>
<td>1-5</td>
</tr>
<tr>
<td>GH 4</td>
<td>2.7</td>
<td>.73</td>
<td>1-4</td>
<td>1-5</td>
</tr>
<tr>
<td>MDS - S 1</td>
<td>12.5</td>
<td>8.09</td>
<td>1-28</td>
<td>0-32</td>
</tr>
<tr>
<td>MDS - S 2</td>
<td>10.5</td>
<td>5.73</td>
<td>1-19</td>
<td>0-25</td>
</tr>
</tbody>
</table>

Note. GH 1 - Overall Health, GH 2 - Pain, GH 3 - Concern re: Health, GH 4 - Comparing Health, S 1 - Self-Performance of ADLs, S 2 - Support for ADLs.

Question 1 of the General Health Scale asked residents to rate their overall health from poor to excellent with higher scores indicating better perceived health. Twenty-two (73%) out of 30 residents rated their health either fair or good. Only two residents felt their health was poor, six (20%) stated health was very good, and no resident rated health as excellent. In question 2 higher scores indicate increased pain experienced in the last 3 months. Nine (30%) reported no pain, 16 (53%) reported little to some pain, and five (17%) reported a great to very great deal of pain. The resident's concern over their health during the last 3 months was addressed by question 3 with higher scores indicating increased concern. Nineteen (63%) of the resident's expressed no concern over their health; the remaining eleven (37%) worried "a little" to "a great deal"; none were concerned "a very great deal". The final health question asked the resident to compare their health to 1 year ago with higher scores indicating feelings of better health. Eight (27%) reported their health was "a little
worse" to "much worse", 19 (63%) stated their health was "the same", and three (10%) scored their health as "a little better". None felt their health was "much" better.

Qualitative information for the variable of health was in response to the question "What makes you say your health is ________?" The blank in this question was filled in according to the resident's answer to Question 1 of the General Health Scale. The possible answers were: poor, fair, good, very good, and excellent. Responses are presented in Table 9. The resident's responses did not include excellent.

Table 9. Responses to Self-Rated Health.

<table>
<thead>
<tr>
<th>Poor</th>
<th>Fair</th>
<th>Good</th>
<th>Very Good</th>
</tr>
</thead>
<tbody>
<tr>
<td>pain present</td>
<td># of new and chronic problems</td>
<td>ability to care for self</td>
<td>no complaints</td>
</tr>
<tr>
<td># of illnesses</td>
<td>old age</td>
<td>decreased physical abilities</td>
<td>no illnesses</td>
</tr>
<tr>
<td>failing memory</td>
<td>mobility</td>
<td>illnesses</td>
<td>no/little pain</td>
</tr>
<tr>
<td>increased recovery time</td>
<td>illnesses</td>
<td></td>
<td>no medicines</td>
</tr>
</tbody>
</table>

The two residents who felt their health was poor attributed the perception to the presence of pain and number of illnesses. Residents who felt their health was fair stated so because of recent problems and multiple chronic problems, their age, and physical and cognitive disabilities. Good health, as a negative view, was related to decreased abilities, present illnesses, immobility, and "not being able to do what I used to". The positive aspects of good health were stated as no pain or illnesses, increased ability to care for self, and good self-care habits. Residents who stated their
health was "very good" expressed such positive aspects as no pain, complaints, medicines, or illnesses.

The final descriptive results presented for the sample pertains to levels of mobility and data obtained from the Minimum Data Set (MDS). The mobility results are divided into resident's self-performance (S1) of activities of daily living (ADLs) as rated by the caretakers and the amount of support provided (S2) for the same ADLs again as rated by the caretakers. Results of self-performance scoring indicated 40% of residents need supervision (e.g., encouragement, cueing, or assistance provided only 1-2 times during the week). A smaller percent (33%) required limited physical assistance (i.e., non-weight bearing assistance) and an even smaller percent (27%) required extensive physical assistance (i.e., weight bearing support). Possible scores ranged from 0 (independent) to 32 (total dependence). The support aspect of the MDS indicated 33% needed set-up help only and 67% needed 1 to 2+ person physical assist. Possible scores ranged from 0 (independent) to 25 (dependent).

The qualitative portion of the study which addressed mobility was gathered in response to the question "How well would you say you are able to get around on a typical day?" Residents defined the answer to this question in terms of amount of help required. Three categories evolved from the clustering method - no help, partial help, and extensive help. No help was expressed mainly as "self-sufficient" and also stated as "get around very good by myself", "do most by myself", and "everything by self". Partial help was defined as help with ADLs and frequent use of walker or
wheelchair. Residents stated extensive help as "nurses help all of the time", "need a push all of the time", and "need help with everything".

Correlational Results

The correlational results are presented in Table 10 as a matrix of the measurement variables. The accepted level of significance throughout the analysis was $p \leq .05$.

In addressing each of the research questions, enumerated in Chapter 1, only those pairs of variables that achieved significance (in this study $r > .35$) were reported.

Table 10. Table of Correlations

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.PWB1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.PWB2</td>
<td>.14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.PWB3</td>
<td>-.25</td>
<td></td>
<td>.13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.PWB4</td>
<td>-.01</td>
<td></td>
<td>.73</td>
<td>.26</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.PWB5</td>
<td>.16</td>
<td></td>
<td>.38</td>
<td>.48</td>
<td>.51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.PWB6</td>
<td>.28</td>
<td></td>
<td>.30</td>
<td>.34</td>
<td>.35</td>
<td>.49</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.CPT</td>
<td>.18</td>
<td></td>
<td>.22</td>
<td>.36</td>
<td>.40</td>
<td>.48</td>
<td>.36</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.LDC1</td>
<td>.11</td>
<td></td>
<td>.21</td>
<td>.37</td>
<td>.36</td>
<td>.57</td>
<td>.44</td>
<td>.93</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.LDC2</td>
<td>.25</td>
<td></td>
<td>.22</td>
<td>.26</td>
<td>.36</td>
<td>.26</td>
<td>.18</td>
<td>.87</td>
<td>.65</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.SCDA</td>
<td>-.02</td>
<td>-.38</td>
<td>-.03</td>
<td>-.08</td>
<td>-.11</td>
<td>-.14</td>
<td>-.41</td>
<td>-.49</td>
<td>-.27</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.GH1</td>
<td>-.47</td>
<td>-.22</td>
<td>.06</td>
<td>-.06</td>
<td>-.28</td>
<td>-.33</td>
<td>-.22</td>
<td>-.19</td>
<td>-.18</td>
<td>-.17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.GH2</td>
<td>.17</td>
<td>-.14</td>
<td>.13</td>
<td>.06</td>
<td>.19</td>
<td>.32</td>
<td>.34</td>
<td>.34</td>
<td>.25</td>
<td>-.01</td>
<td>-.61</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.GH3</td>
<td>.06</td>
<td>-.22</td>
<td>.02</td>
<td>-.04</td>
<td>.31</td>
<td>.05</td>
<td>.48</td>
<td>.42</td>
<td>.36</td>
<td>-.02</td>
<td>-.34</td>
<td>.45</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.GH4</td>
<td>-.25</td>
<td>.36</td>
<td>-.33</td>
<td>-.09</td>
<td>-.14</td>
<td>-.21</td>
<td>-.26</td>
<td>-.26</td>
<td>-.15</td>
<td>-.00</td>
<td>.42</td>
<td>-.40</td>
<td>-.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.S1</td>
<td>.14</td>
<td>-.28</td>
<td>-.06</td>
<td>-.26</td>
<td>.10</td>
<td>.06</td>
<td>-.12</td>
<td>-.12</td>
<td>-.18</td>
<td>.52</td>
<td>-.32</td>
<td>.25</td>
<td>.20</td>
<td>-.35</td>
<td></td>
</tr>
<tr>
<td>16.S2</td>
<td>.07</td>
<td>-.27</td>
<td>-.09</td>
<td>-.38</td>
<td>-.01</td>
<td>-.05</td>
<td>-.23</td>
<td>-.23</td>
<td>-.20</td>
<td>.44</td>
<td>-.21</td>
<td>.24</td>
<td>.08</td>
<td>-.26</td>
<td>.88</td>
</tr>
</tbody>
</table>

Note. Correlations $> .35$ are significant at $p \leq .05$ (2-tailed).
Research Question 1. What is the Strength and Direction of Correlations Relating Perceived Level of Control and Psychological Well-Being?

Levels of Control and Psychological Well-Being. Significant correlations among two dimensions of control and six dimensions of psychological well-being are reported in Table 11. Pearson's $r$ was computed to examine the strength and direction of the relationships.

Situational control was negatively correlated with environmental mastery. Results indicated that increased difficulty in managing everyday affairs, inability to change surroundings, and lack of sense of control over the external world corresponded with increased perception that others have control.

Table 11. Intercorrelations Among Measures of Personal Control and Psychological Well-Being

<table>
<thead>
<tr>
<th></th>
<th>SCDA</th>
<th>LDC1</th>
<th>LDC2</th>
</tr>
</thead>
<tbody>
<tr>
<td>PWB1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PWB2</td>
<td></td>
<td>-.38*</td>
<td></td>
</tr>
<tr>
<td>PWB3</td>
<td></td>
<td></td>
<td>.37*</td>
</tr>
<tr>
<td>PWB4</td>
<td></td>
<td>.36*</td>
<td></td>
</tr>
<tr>
<td>PWB5</td>
<td></td>
<td></td>
<td>.57**</td>
</tr>
<tr>
<td>PWB6</td>
<td></td>
<td></td>
<td>44*</td>
</tr>
</tbody>
</table>

Note. Only correlations greater than $r > .35$ were significant at $p \leq .05$ (2-tailed). scda = situational control; ldc1 = desire subscale; ldc2 = expectancy subscale; pwb1 = autonomy; pwb2 = environmental mastery; pwb3 = personal growth; pwb4 = relations with others; pwb5 = purpose in life; pwb6 = self-acceptance. *$p \leq .05$. **$p \leq .01$. ***$p \leq .001$. 
All correlations between the desire subscale of control and the psychological dimensions of personal growth, relations with others, purpose in life, and self-acceptance were positive. This finding indicated that when residents felt attaining outcomes was important and desirable they also experienced an increased sense of growth and improvement in self, satisfying and trusting relationships, had goals and objectives for living, and positive attitudes toward life. The expectancy subscale also positively correlated with positive relations with others, indicating residents who felt they could attain their desired outcomes experienced more satisfying relationships.

Research Question 2. What are the Contributions of Perceived Health and Mobility to Personal Control and Psychological Well-Being?

Health, Mobility, and Personal Control. Relationships among the variables of health, mobility, and personal control were determined through calculations of Pearson's $r$ as presented in Table 12.

Table 12. Correlations Between Health, Mobility, and Personal Control

<table>
<thead>
<tr>
<th></th>
<th>SCDA</th>
<th>LDC1</th>
<th>LDC2</th>
</tr>
</thead>
<tbody>
<tr>
<td>GH1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GH3</td>
<td></td>
<td>.42*</td>
<td>.36*</td>
</tr>
<tr>
<td>GH4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S 1</td>
<td>.52**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S 2</td>
<td></td>
<td>.44*</td>
<td></td>
</tr>
</tbody>
</table>

Note. SCDA - Situational Control, LDC1 - Desire Subscale, LDC2 - Expectancy Subscale, GH 1 - Self-rated Health, GH 3 - Concern re: Health, GH 4 - Compare Health, S 1 - Self-Performance, S 2 - Support. *$p \leq .05$. **$p \leq .01$. 
The single aspect of health which significantly correlated with control was worry or concern about one's health. The extent to which health was a worry or concern during the past 3 months positively correlated with both the desire and expectancy subscales of control. Results implied that as residents' concern about their health increased, desire to attain outcomes became more important and the expectation of achieving them increased. For example, when residents' concern about health increased they also felt it was important that their friends and families visit when invited. Residents were generally of the opinion that when friends and family were asked to come they generally obliged.

Correlations between variables of mobility (i.e., self-performance and support) and situational control of daily activities (SCDA) were also positive. This finding indicated that as performance of ADLs by residents and support provided for ADLs by staff reached increased levels of dependence, residents perceived increased control by others. In other words, residents who need more assistance from staff for ADLs also perceive they have less situational control of daily activities.

Multiple regression was used to examine the possible contributions of health and mobility to other measurement variables. Since there were no designated dependent variables in this study, the variables of interest and dimensions that resulted in significant Pearson's correlations were regressed on each other.

Situational control was regressed on well-being, mobility, and other control dimensions with a resulting $R^2$ of .39. The significant relationships were the self-performance of ADLs (S 1) and the cross-products total (CPT) of the desire and
expectancy subscales of control. The results (see Table 13) indicated residents who perceived that others were in control felt control to be less important and felt they were less likely to attain desired outcomes and were more dependent.

Table 13. Regression of Situational Control on Dimensions of Well-Being, Mobility, and Control

<table>
<thead>
<tr>
<th>Variables</th>
<th>Beta</th>
<th>Sig. Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT</td>
<td>-0.348</td>
<td>0.0285</td>
</tr>
<tr>
<td>S 1</td>
<td>0.484</td>
<td>0.0033</td>
</tr>
</tbody>
</table>

\[ R^2 = 0.39 \]

The desire subscale (LDC1) was regressed on health and well-being with a resulting \( R^2 \) of 0.32. The only significant dimension in the equation was purpose in life (PWB5). The Beta coefficient (see Table 14) indicated residents who had goals and objectives for living felt it important to attain desired outcomes.

Table 14. Regression of Desire Subscale on Dimensions of Health and Well-Being

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta</th>
<th>Sig. Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>PWB5</td>
<td>0.570</td>
<td>0.0010</td>
</tr>
</tbody>
</table>

\[ R^2 = 0.32 \]

The expectancy subscale (LDC2) was regressed on health and well-being with a resulting \( R^2 \) of 0.27. The psychological dimension of positive relations with others (PWB 4) and the health dimension of worry about one's health (GH3) had positive influences on the subscale. The Beta coefficients (see Table 15) indicated residents who expected to attain desired outcomes experienced satisfying relationships with others and increased worry about their health.
Table 15. Regression of Expectancy Subscale on Dimensions of Health and Well-Being

<table>
<thead>
<tr>
<th>Variables</th>
<th>Beta</th>
<th>Sig. Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>PWB4</td>
<td>.382</td>
<td>.0272</td>
</tr>
<tr>
<td>GH3</td>
<td>.378</td>
<td>.0288</td>
</tr>
</tbody>
</table>

$R^2 = .27$

Health, Mobility, and Psychological Well-Being. Correlations between aspects of health and well-being were significant only for the psychological dimensions of autonomy and environmental mastery (see Table 16).

Table 16. Correlations Between Health, Mobility, and Psychological Well-Being

<table>
<thead>
<tr>
<th></th>
<th>PWB1</th>
<th>PWB2</th>
</tr>
</thead>
<tbody>
<tr>
<td>GH1</td>
<td>-.47**</td>
<td></td>
</tr>
<tr>
<td>GH3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GH4</td>
<td></td>
<td>.36*</td>
</tr>
<tr>
<td>S 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S 2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. PWBI - Autonomy, PWB2 - Environmental Mastery, GH1 - Self-rated Health, GH3 - Concern re:Health, GH4 - Compare Health, S 1 - Self-Performance, S 2 - Support.

*p ≤ .05. **p ≤ .01.

How residents rated their health was negatively correlated with autonomy and how residents compared their health to 1 year ago was positively correlated with environmental mastery. Residents who perceived their health as poor evaluated themselves by personal standards and regulated behavior from within (i.e., take on a more inwardly orientation). On the other hand it may only be the case that the difficulty in interpreting the finding is a function of the sample size or the relatively
low internal reliability of the autonomy subscale (PWB1) in this sample. Residents who felt their health had improved over the past year exhibited increased feelings of control and choice. There were no significant correlations between mobility and well-being.

The significant relationships and corresponding values for $R^2$, Beta, and significance levels resulting from multiple regression analysis are presented in Table 17. In Table 17 the six dimensions of psychological well-being were regressed on health, mobility, and personal control.

Table 17. Regression of Psychological Well-Being Dimensions on Health, Mobility, and Personal Control

<table>
<thead>
<tr>
<th>Significant Relationships</th>
<th>$R^2$</th>
<th>Beta</th>
<th>Sig. Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>PWB1 and GH1</td>
<td>.22</td>
<td>-.476</td>
<td>.0077</td>
</tr>
<tr>
<td>PWB2 and SCDA</td>
<td>.27</td>
<td>-.385</td>
<td>.0258</td>
</tr>
<tr>
<td>GH4</td>
<td></td>
<td>.358</td>
<td>.0372</td>
</tr>
<tr>
<td>PWB3 and LDC1</td>
<td>.14</td>
<td>.378</td>
<td>.0393</td>
</tr>
<tr>
<td>PWB4 and CPT</td>
<td>.16</td>
<td>.404</td>
<td>.0264</td>
</tr>
<tr>
<td>PWB5 and LDC1</td>
<td>.32</td>
<td>.570</td>
<td>.0010</td>
</tr>
<tr>
<td>PWB6 and LDC1</td>
<td>.19</td>
<td>.446</td>
<td>.0134</td>
</tr>
</tbody>
</table>

Autonomy (PWB1) was regressed on self-rated health (GH1) with a resulting $R^2$ of .22. The $R^2$ represents the proportion of variance in the dependent variable explained by the independent variable(s) included in the equation. The Beta coefficient was -.476 which indicated a negative influence of self-rated health on autonomy. The Beta coefficient also provides an indication of the relative contribution of self-rated health...
to the prediction of autonomy when the other variables are held constant. This analysis implied that as residents perceived declining health they were more self-determining and behavior was regulated from within. Again, however, the measure of autonomy achieved a relatively low level of internal reliability.

Environmental mastery (PWB2) was regressed on health, control, and mobility with a resulting $R^2$ of .27. The Beta coefficients for both significant dimensions, comparison of health (GH4) and situational control (SCDA), were similar in strength (see Table 17). A negative influence of situational control on environmental mastery was suggested by the Beta coefficient. Residents who felt they had choices also perceived themselves as in control. The Beta coefficient of environmental mastery and comparison of health indicated a positive influence. Residents who felt they had control and choice also perceived their health as better than 1 year ago.

Personal growth (PWB3) was regressed on health and control with a resulting $R^2$ of .14. The only significant dimension was the desire subscale of control (LDC1) with a Beta coefficient of .378. Results indicated residents who felt there was growth and improvement in self also expressed increased desire to attain outcomes.

Positive relations with others (PWB4) was regressed on dimensions of control and mobility with a resulting $R^2$ of .16. The significant dimension was the cross-products total (CPT) of the desire and expectancy control subscales with a Beta coefficient of .404. Results indicated that residents who experienced satisfying relationships felt it was important to attain the desired outcomes relating to control and expected to achieve them.
Purpose in life (PWB5) was regressed on health and control with a resulting $R^2$ of .32. Health did not enter the equation and the only significant predictor of PWB5 was the desire for outcomes subscale (LDC1). The Beta coefficient was .570 which indicated residents who felt it was important to attain desired outcomes had goals, a feeling of meaning in life, and objectives for living. In other words a desire for outcomes was a strong predictor of this aspect of well-being.

Self-acceptance (PWB6) was regressed on health and control with a resulting $R^2$ of .19. Again the only significant dimension was the desire for outcomes subscale (LDC1). The Beta coefficient was .446 which indicated residents who felt it was important to attain the desired outcomes had positive attitudes towards life, acceptance of both good and bad qualities in themselves, and positive feelings about their past.

**Research Question 3. How do the Demographic Variables of Age, Gender, and Length of Stay in Nursing Homes Relate to the Perceived Levels of Control and Well-Being?**

Pearson's correlational coefficient and multiple regression were used to address this question. There were no significant Pearson's correlations between age, gender, and length of stay with any of the personal control variables or the composite measure of psychological well-being. Multiple regression also confirmed no significant relationships between the demographic variables and dimensions of personal control. However, multiple regression revealed significant relationships between age and the
psychological well-being dimensions of environmental mastery and positive relations
with others (see Tables 18 & 19).

| Table 18. Regression of Environmental Mastery on Age, Gender, and Length of Stay |
|-----------------------------|---------|---------|
| Variable | Beta | Sig. Level |
| Age | .527 | .0028 |

*Environmental mastery was regressed on age, gender, and length of stay with a resulting $R^2$ of .28. The significant variable in the equation was age which had a Beta coefficient of .527 (see Table 18). The coefficient indicated that age had a positive influence on environmental mastery, therefore, as age increased so did feelings of control and choice.*

| Table 19. Regression of Positive Relations with Others on Age, Gender, and Length of Stay |
|-----------------------------|---------|---------|
| Variable | Beta | Sig. Level |
| Age | .452 | .0121 |

*Positive relations with others was regressed on age, gender, and length of stay with a resulting $R^2$ of .20. The significant variable was again age which had a Beta coefficient of .452 (see Table 19). The coefficient indicated a positive relationship. According to the analysis, as age increased residents experienced warm, satisfying, and trusting relationships.*
CHAPTER 5

SUMMARY AND DISCUSSION

Summary

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 control, psychological well-being, and levels of health and mobility. Personal control was defined as the relatively stable belief that one has the ability to influence the environment. Psychological well-being was defined as positive psychological functioning in the six dimensions of (a) autonomy, (b) environmental mastery, (c) personal growth, (d) positive relations with others, (e) purpose in life, and (f) self-acceptance. Health was subjectively defined; mobility was defined as the functional aspect of health and the ability to carry out the physical self-care activities of daily living. Personal control was measured using two instruments: (a) the Situational Control of Daily Activities (SCDA) scale, and (b) the Locus of Desired Control (LDC) measure. Psychological well-being was assessed using the Scales of Psychological Well-Being (PWB) and anecdotal data. The General Health (GH) scale measured levels of health and information from the Minimum Data Set (MDS) evaluated levels of mobility. Anecdotal data also contributed to assessing levels of health and mobility.
Three research questions were addressed: (a) What is the strength and direction of correlations relating perceived level of control and psychological well-being?, (b) What are the contributions of perceived health and mobility to personal control and well-being?, and (c) How do the demographic variables of age, gender, and length of stay in nursing homes relate to perceived level of control and well-being? Relationships among the variables of interest were explored in the literature. The literature suggested strong positive relationships between control and well-being. This interrelationship was also found to be affected by and affect other aspects of resident's daily lives such as their perceived levels of health and mobility.

Discussion and Nursing Implications

Autonomy is essential to psychological well-being and has been determined to be a primary contributor to positive psychological functioning. The literature reported adverse effects when residents experienced perceived loss of personal control or a decrease in their sense of well-being. Both of these variables and their interactions with health and mobility have been shown to affect a resident's quality of life (Bowsher & Gerlach, 1990; Lawton, 1983; Bowsher, 1990; Ryden, 1984; Hofland, 1990; Rodin, 1986; Heidrich, 1993; Heidrich & Ryff, 1993).

Previous research emphasized the importance of the environment in the life of a nursing home resident. The environment was defined in terms of the interpersonal, organizational, and physical aspects. The resident's desire to control those aspects of
their environment correlated with well-being. In other words, those who felt in control were better adjusted.

Relationships with staff were found to be one of the most important aspects of the environment for residents. Staff have the opportunity to influence the objective (actual) extent of control as well as perceived control (Ryden, 1985). Several studies indicated the critical role that caregivers have in residents' lives. An increase in well-being was accounted for by altering the caregiving behaviors and attitudes of nurses in studies by Stirling and Reid (1992) and Taival and Raatikainen (1993). One of the predictors of well-being in a study by Noelker and Harris (1978) was feelings about the staff.

In this study residents indicated people and friendliness as the two most important contributors to their sense of well-being in the nursing home. Within the category of people, the most frequent response was employees followed by other residents and friends. Three other categories that evolved were helping, caring, and sharing which also benefit from positive interpersonal relationships. The five categories support Ryff's belief that well-being is a multidimensional construct and the six dimensions she chose to represent it (e.g., autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, self-acceptance).

This study further supported previous research of the relationship between personal control and well-being. Both desired and situational control exhibited significant relationships with all six dimensions of well-being. The majority of residents indicated they felt it was important to attain desired outcomes and perceived sufficient personal control to achieve those outcomes. They also expressed having
feelings of control most of the time in their activities of daily living. High self-ratings of overall well-being were also found in this same group of residents. The presence of goals and objectives, satisfying and trusting relationships, and feelings of choice and ability to manage the environment were all strong predictors of desired and situational control.

The analysis indicated that appropriate interventions are critical to facilitate and maintain positive perceptions of control and feelings of well-being. Initially the caregiver needs to understand individual reasons for, feelings associated with, and responses to the resident's relocation. Trusting relationships should be nurtured between resident and caregiver so open honest information can be exchanged. During the resident's time in the nursing home, care plans should be a joint effort and resident's goals and objectives should be incorporated into the plan. Encouraging the resident to participate and allowing the resident choices facilitates both perceptions of control and well-being. Results showed that when residents felt unable to manage surroundings and personal affairs they experienced an increased perception of control by others, therefore, opportunities to make choices regarding personal care and daily activities should be realistic.

As discussed earlier, personal control and well-being exhibited significant relationships with health and mobility in the literature. Results from this study also suggested strong relationships. A strong predictor of desired and expected control was resident's concern or worry about their health over the past three months. It appeared that as a resident's concern increased regarding their health, desired outcomes became
more important, and residents' expectations to achieve the outcomes increased. This increase in desired and expected outcomes could be explained by the fact that as one's health deteriorates others become more attentive and responsive to desires and, therefore, usually fulfill resident's desired outcomes. In the presence of declining health, interventions should be designed to enable and assist residents to achieve practical desires and make residents' goals more achievable. These interventions would support the findings of Noelker and Harris (1978) who found the fulfillment of desire for visitors to be a main predictor of well-being.

Self-rated health has been shown to be a main indicator of well-being (Bowsher & Gerlach, 1990). In support, findings from this study indicated residents who felt their health was better than one year ago also perceived an increase in their choices, ability to manage their environment, and control of external activities. In this study health was defined by the residents as number of illnesses, mobility status, deteriorating physical abilities, and amount of pain present. Interventions might include promoting and maintaining the physical health of residents through proper nutrition and assisting residents to be as free from symptoms as possible and to continue their normal activities as long as possible.

The only unexpected finding involved a negative relationship between health and autonomy. The face-value interpretation would be as resident's believe their health to be worse they feel more autonomous and independent. Autonomy, as a dimension of well-being, is also defined as self-determining and regulating behavior from within. With the latter definition another possible explanation could be as residents feel their
health has declined they become more inwardly oriented. However, it is more likely this finding is due to the small sample size or the relatively low internal reliability of the autonomy subscale.

Mobility had no significant relationships with well-being in this study, but it was a strong predictor of control. In fact, when residents' needs for assistance with ADLs increased to levels of dependence they perceived increased situational control by others. This perception then contributed to residents' beliefs that control was less important and it was less likely that desired outcomes would be attained. It is important here to mention that residents and caregivers in this study rated resident's mobility status similarly. The percent of residents who defined their mobility status as requiring partial or extensive help was comparable to the percent of residents the caregivers felt were in need of 1 to 2+ person physical support. The percent of residents who felt they were self-sufficient or required only partial help was comparable to the percent of residents the caregivers felt needed only supervision or limited assistance. The message here is that nurses and residents tend to agree on the amount of assistance required for ADLs. Interventions should include comparison of perceptions of self-performance and support in residents' ADLs with those of the caregiver. This would produce accurate care plans and enable the caregivers to facilitate feelings of control by assisting and allowing residents control in other areas of their lives apart from the physical component.

Finally, this study revealed that age is a strong predictor of well-being. As age increased residents felt they were better able to manage the environment and chose
contexts suitable to personal needs. A better understanding of human relationships and the experience of having satisfying and trusting relationships also increased with age. Nurses should promote aging as a positive concept and encourage residents to share positive experiences with others.

Limitations and Recommendations

This study was limited by the nonrandom sample. Generalizations cannot be made beyond the study sample. However, it was anticipated because of the homogeneity of the population in this region subjects in the convenience sample would be fairly typical of the population of nursing home residents in Montana. Seventy-six percent of the sample were women and 86% of the sample were 75 or older which is consistent with the profile of residents found in nursing homes.

Other limitations included the small sample size and the combination of instruments used. Because of the large number of variables the study would have had more power with a larger sample size. Also, one instrument proved to have low internal reliability which may or may not have been related to sample size.

The Scales of Psychological Well-Being used in this study have not been extensively applied to elderly in nursing homes, therefore, researchers may want to take this lengthy tool by itself and determine its usefulness in this population. Another recommendation for the same instrument would be to mix items from the six different scales (by taking one item from each scale successively) into one continuous self-report instrument as suggested by the author.
Another recommendation would be to continue to combine quantitative instruments with qualitative information within the same study. The qualitative information can support and qualify objective data as it did in this study in regard to the variable of mobility. We tend to believe that the caregiver's perspective of resident's needs and behaviors does not necessarily agree with the perceptions of the resident. More data would lend support to such tools as the Minimum Data Set which is an imperative part of the care plan in nursing homes.

Longitudinal studies may help to determine possible causal relationships among the variables of personal control, well-being, levels of health and mobility, and age. Results of longitudinal studies could also help to determine if length of stay in the nursing home affects perceived personal control. If a relationship exists between length of stay and personal control nurses could use this information to help newly institutionalized elderly adjust to their environment more quickly. Finally, this type of study may also help to determine if dimensions of these variables are state or trait oriented and how past experiences influence current behaviors and expectations.

With the future of Medicare so uncertain, research which focuses on personal control and self-management is even more important. Medicare reimbursement for nursing home care may be decreased and the elderly will be placed in other care settings or remain at home. These settings may not provide the amount of care that is needed. Nursing research in the area of autonomy and self-care is critical for the well-being of these individuals.
Conclusion

The findings in this study indicate there are important associations between the variables of personal control, psychological well-being, levels of health and mobility, and the demographic variable of age in elderly nursing home residents. The positive relationships established between the variables require nursing interventions which support increased perceptions of control and well-being. For nurses working with the elderly in nursing homes this knowledge is critical to the care and development of residents.

With the projected increase in the average age of elderly persons, the number of elderly, and the number of admissions to nursing homes, continued nursing research in this area will benefit residents' lives. The adverse effects of loss of personal control and well-being due to relocation can be mitigated through plans of care based on professional nursing research.
REFERENCES CITED


DEMOGRAPHIC INFORMATION

1. Age - _____
2. Gender - M ____ , F____
3. Length of stay - ________________
The purpose of this questionnaire is to determine your attitudes and beliefs on a variety of matters pertaining to everyday living. There are two parts to this study. The first part asks you to rate how desirable different events are to you. The second part asks you to rate the degree to which you agree or disagree with various statements.

Part I: Desire of Outcomes
There are many activities or events that happen to us in everyday living. Some of these events are more important or desirable to you than others. Listed below are statements mentioning some of these activities or events. Working with the interviewer, would you please rate the extent to which each event described is important or not important to you. We emphasize that we are concerned here with the events importance to you, not to others.

5 VERY DESIRABLE
4 DESIRABLE
3 UNDECIDED
2 UNDESIRABLE
1 VERY UNDESIRABLE

1. How desirable or important is it to you that people ask you for advice and suggestions?

5 4 3 2 1

2. How important is it to you that you maintain you health?

5 4 3 2 1

3. Is being able to get along with people you meet important to you?

5 4 3 2 1

4. Is being able to arrange for outings important to you?

5 4 3 2 1

5. Is being able to contact your family whenever you wish desirable to you?

5 4 3 2 1
6. How important is being able to spend your time doing whatever you wish?

5  4  3  2  1

7. How important is it that you do the chores yourself without any help?

5  4  3  2  1

8. Is having your friends and family visit when you invite them important to you?

5  4  3  2  1

9. How desirable is it to you that you can be active whenever you wish?

5  4  3  2  1

10. How important is it that you find people who are interested in hearing what you have to say?

5  4  3  2  1

11. How desirable is it to you to get away from the home?

5  4  3  2  1

12. How desirable to you is having your family visit you?

5  4  3  2  1

13. How desirable is it to you to be able to help others?

5  4  3  2  1

14. How important is it to you that you can have your friends over whenever you want?

5  4  3  2  1

15. Is keeping in contact with interesting ideas desirable to you?

5  4  3  2  1
16. Is being able to find privacy important to you?

5 4 3 2 1

Part II: Beliefs and Attitudes
The following are statements that may describe either yourself or the beliefs you have. Would you please respond to each statement by designating on the scale given with each item the degree to which you agree or disagree with the item. Once again, we emphasize that we are interested in your own opinion, not your judgement of what others think. From time to time you may find that some items seem repeated. Don't worry about this, for each item is purposefully different in terms of its specific wording. Would you please go ahead and rate your degree of agreement or disagreement to each statement.

5 STRONGLY AGREE
4 AGREE
3 UNDECIDED
2 DISAGREE
1 STRONGLY DISAGREE

1. People tend to ignore my advice and suggestions.

1 2 3 4 5

2. Maintaining my own level of health strongly depends on my own efforts.

5 4 3 2 1

3. It is difficult for me to get to know people.

1 2 3 4 5

4. I can usually arrange to go on outings that I'm interested in.

5 4 3 2 1

5. The situation in which I live prevents me from contacting my family as much as I wish.

1 2 3 4 5
6. I spend my time usually doing what I want to do.
   5 4 3 2 1

7. Although it is sometimes strenuous, I try to do the chores by myself.
   5 4 3 2 1

8. I find that if I ask my family (or friends) to visit me, they come.
   5 4 3 2 1

9. I have quite a bit of influence on the degree to which I can be involved in activities.
   5 4 3 2 1

10. I can rarely find people who will listen closely to me.
    1 2 3 4 5

11. My getting away from the home generally depends on someone else making the decisions.
    1 2 3 4 5

12. Visits from my family (or friends) seems to be due to their own decisions and not my influence.
    1 2 3 4 5

13. People generally do not allow me to help them.
    1 2 3 4 5

14. I can entertain friends when I want.
    5 4 3 2 1
15. Keeping in contact with interesting ideas is easy for me to do.

5 4 3 2 1

16. I am able to find privacy when I want it.

5 4 3 2 1
I would now like you to tell me in your own words your perceptions about your daily activities.

1 = ALL OF THE TIME BY MYSELF
2 = MOST OF THE TIME BY MYSELF
3 = SOME OF THE TIME BY MYSELF
4 = MOST OF THE TIME BY OTHERS
5 = ALL OF THE TIME BY OTHERS

Ambulating: Please answer the following questions as they relate to getting in and out of bed, sitting in a chair, walking about, etc.

1. To what extent do I determine when I get out of bed during the day? N/A 1 2 3 4 5
2. To what extent do I determine where I go during the day? N/A 1 2 3 4 5
3. To what extent do I determine how much assistance I receive? N/A 1 2 3 4 5

Dressing: Please answer the following questions as they relate to obtaining clothes from the closet and putting them on, and closing fasteners.

4. To what extent do I determine changing to clothes other than pajamas during the day? N/A 1 2 3 4 5
5. To what extent do I determine when I get dressed? N/A 1 2 3 4 5
6. To what extent do I determine the amount of assistance I receive? N/A 1 2 3 4 5

Eating: Please answer the following questions regarding eating.

7. To what extent do I determine when I eat? N/A 1 2 3 4 5
8. To what extent do I determine how much time I take to eat? N/A 1 2 3 4 5
<table>
<thead>
<tr>
<th>Question</th>
<th>Option</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. To what extent do I determine with whom to eat?</td>
<td>N/A</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. To what extent do I determine what to eat?</td>
<td>N/A</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. To what extent do I determine how much assistance I receive?</td>
<td>N/A</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Grooming: Please answer the following about your daily activities in</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>relation to bathing, brushing you teeth, combing hair, etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. To what extent do I determine when I bathe?</td>
<td>N/A</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. To what extent do I determine when I brush my teeth, comb hair?</td>
<td>N/A</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. To what extent do I determine the amount of assistance I receive in</td>
<td>N/A</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>bathing and grooming?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toileting: Please answer the following about your daily activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>surrounding elimination...or going to the toilet, using a urinal,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>commode, bedpan, etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. To what extent do I determine whether I take food or drugs...</td>
<td>N/A</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>specifically related to my bowels?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. To what extent do I determine how often I use the toilet...</td>
<td>N/A</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>(urinal, bedpan, commode)?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. To what extent do I determine how much assistance is necessary?</td>
<td>N/A</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Treatments: Please answer the following as they relate to treatments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>you are receiving.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. To what extent was I involved in choosing the type of treatment</td>
<td>N/A</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>from a variety of alternatives?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. To what extent was I able to determine when the treatments were to</td>
<td>N/A</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>be done?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. To what extent was I able to determine how much assistance is</td>
<td>N/A</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>required?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Group Participation: Please answer the following questions as they relate to group activities here - classes, handicrafts, etc.

22. To what extent do I decide whether to participate in group activities? N/A 1 2 3 4 5

23. To what extent do I decide what kinds of group activities I participate? N/A 1 2 3 4 5

24. To what extent do I determine the amount of time spent in group activities? N/A 1 2 3 4 5

One to One Interaction: Please answer the following questions in relation to your opportunities for talking to other persons (in person, by phone, or communicating by letter writing).

25. To what extent do I determine whether or not to socialize with one or two persons? N/A 1 2 3 4 5

26. To what extent do I determine the amount of socializing to be done? N/A 1 2 3 4 5

27. To what extent do I decide when to telephone? N/A 1 2 3 4 5

28. To what extent do I determine when to write letters? N/A 1 2 3 4 5

29. To what extent do I determine the amount of time spent communicating with others? N/A 1 2 3 4 5

Solitary Activities: Please answer the following questions with respect to the kinds of things you do when you are alone.

30. To what extent do I determine the hours for watching TV? N/A 1 2 3 4 5

31. To what extent do I determine what to watch? N/A 1 2 3 4 5

32. To what extent do I determine the reading materials I receive? N/A 1 2 3 4 5

33. To what extent do I determine when I do my reading? N/A 1 2 3 4 5

34. To what extent do I determine whether I have quiet time (just sitting, contemplating)? N/A 1 2 3 4 5
35. To what extent can I take as much time as I want for solitude? N/A 1 2 3 4 5

Other: Are there any other activities in which you participate during your stay here which we have not mentioned?

36. _____________________________: To what extent can I determine when to engage in activity? N/A 1 2 3 4 5

37. _____________________________: To what extent can I decide how much assistance I receive for this activity? N/A 1 2 3 4 5
The six scales of psychological well-being were constructed to measure the dimensions of autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. Items from the separate scales are mixed (by taking one item from each scale successively) into one continuous self-report instrument. Participants respond with a six-point format ranging from strongly disagree (1) to strongly agree (6). Responses to negatively scored items are reversed in the final scoring procedure so that high scores indicate high self-ratings on the dimension assessed.

(+ ) indicates positively scored items
(-) indicates negatively scored items

AUTONOMY

Definition:  High Scorer: Is self-determining and independent; able to resist social pressures to think and act in certain ways; regulates behavior from within; evaluates self by personal standards.
Low Scorer: Is concerned about the expectations and evaluations of others; relies on judgments of others to make important decisions; conforms to social pressures to think and act in certain ways.

(-) 1. Sometimes I change the way I think or act to be more like those around me.

(+ ) 2. I am not afraid to voice my opinions, even when they are in opposition to the opinions of most people.

(+ ) 3. My decisions are not usually influenced by what everyone else is doing.

(-) 4. I tend to worry about what other people think of me.

(+ ) 5. Being happy with myself is more important to me than having others approve of me.
6. I tend to be influenced by people with strong opinions.

7. People rarely talk me into doing things I don’t want to do.

8. It is more important to me to "fit in" with others than to stand alone on my principles.

9. I have confidence in my own opinions, even if they are contrary to the general consensus.

10. It’s difficult for me to voice my own opinions on controversial matters.

11. I often change my mind about decisions if my friends or family disagree.

12. I am not the kind of person who gives in to social pressures to think or act in certain ways.

13. I am concerned about how other people evaluate the choices I have made in my life.

14. I judge myself by what I think is important, not by the values of what others think is important.

ENVIRONMENTAL MASTERY

Definition: High Scorer: Has a sense of mastery and competence in managing the environment; controls complex array of external activities; makes effective use of surrounding opportunities; able to choose or create contexts suitable to personal needs and values.

Low Scorer: Has difficulty managing everyday affairs; feels unable to change or improve surrounding context; is unaware of surrounding opportunities; lacks sense of control over external world.

1. In general, I feel I am in charge of the situation in which I live.

2. The demands of everyday life often get me down.

3. I do not fit very well with the people and the community around me.

4. I am quite good at managing the many responsibilities of my daily life.

5. I often feel overwhelmed by my responsibilities.
(+ 6) If I were unhappy with my living situation, I would take effective steps to change it.

(+ 7) I generally do a good job of taking care of my personal finances and affairs.

(– 8) I find it stressful that I can't keep up with all of the things I have to do each day.

(+ 9) I am good at juggling my time so that I can fit everything in that needs to get done.

(+ 10) My daily life is busy, but I derive a sense of satisfaction from keeping up with everything.

(– 11) I get frustrated when trying to plan my daily activities because I never accomplish the things I set out to do.

(+ 12) My efforts to find the kinds of activities and relationships that I need have been quite successful.

(– 13) I have difficulty arranging my life in a way that is satisfying to me.

(+ 14) I have been able to build a home and a lifestyle for myself that is much to my liking.

PERSONAL GROWTH

Definition: High Scorer: Has a feeling of continued development; sees self as growing and expanding; is open to new experiences; has sense of realizing one's potential; sees improvement in self and behavior over time; is changing in ways that reflect more self knowledge and effectiveness.

Low Scorer: Has a sense of personal stagnation; lacks a sense of improvement or expansion over time; feels bored and uninterested with life; feels unable to develop new attitudes or behaviors.

(– 1) I am not interested in activities that will expand my horizons.

(+ 2) In general, I feel that I continue to learn more about myself as time goes by.

(+ 3) I am the kind of person who likes to give new things a try.
4. I don't want to try new ways of doing things—my life is fine the way it is.

5. I think it is important to have new experiences that challenge how you think about yourself and the world.

6. When I think about it, I haven't really improved much as a person over the years.

7. In my view, people of every age are able to continue growing and developing.

8. With time, I have gained a lot of insight about life that has made me a stronger, more capable person.

9. I have the sense that I have developed a lot as a person over time.

10. I do not enjoy being in new situations that require me to change my old familiar ways of doing things.

11. For me, life has been a continuous process of learning, changing, and growth.

12. I enjoy seeing how my views have changed and matured over the years.

13. I gave up trying to make big improvements or changes in my life a long time ago.

14. There is truth to the saying you can't teach an old dog new tricks.

**POSITIVE RELATIONS WITH OTHERS**

Definitions:  
**High Scorer:** Has warm, satisfying, trusting relations with others; is concerned about the welfare of others; capable of strong empathy, affection, and intimacy; understands give and take of human relationships.  
**Low Scorer:** Has few close, trusting relationships with others; finds it difficult to be warm, open, and concerned about others; is isolated and frustrated in interpersonal relationships; not willing to make compromises to sustain important ties with others.

1. Most people see me as loving and affectionate.

2. Maintaining close relationships has been difficult and frustrating for me.
(-) 3. I often feel lonely because I have few close friends with whom to share my concerns.

(+ ) 4. I enjoy personal and mutual conversations with family members or friends.

(+ ) 5. It is important to me to be a good listener when close friends talk to me about their problems.

(-) 6. I don't have many people who want to listen when I need to talk.

(+ ) 7. I feel like I get a lot out of my friendships.

(-) 8. It seems to me that most other people have more friends than I do.

(+ ) 9. People would describe me as a giving person, willing to share my time with others.

(-) 10. I have not experienced many warm and trusting relationships with others.

(-) 11. I often feel like I'm on the outside looking in when it comes to friendships.

(+ ) 12. I know that I can trust my friends, and they know they can trust me.

(-) 13. I find it difficult to really open up when I talk with others.

(+ ) 14. My friends and I sympathize with each others' problems.

PURPOSE IN LIFE

Definition:  **High Scorer:** Has goals in life and a sense of directedness; feels there is meaning to present and past life; holds beliefs that give life purpose; has aims and objectives for living.

**Low Scorer:** Lacks a sense of meaning in life; has few goals or aims, lacks a sense of direction; does not see purpose of past life; has no outlook or beliefs that give life meaning.

(+ ) 1. I feel good when I think of what I've done in the past and what I hope to do in the future.

(-) 2. I live life one day at a time and don't really think about the future.
I tend to focus on the present, because the future nearly always brings me problems.

I have a sense of direction and purpose in life.

My daily activities often seem trivial and unimportant to me.

I don't have a good sense of what it is I'm trying to accomplish in life.

I used to set goals for myself, but that now seems like a waste of time.

I enjoy making plans for the future and working to make them a reality.

I am an active person in carrying out the plans I set for myself.

Some people wander aimlessly through life, but I am not one of them.

I sometimes feel as if I've done all there is to do in life.

My aims in life have been more a source of satisfaction than frustration to me.

I find it satisfying to think about what I have accomplished in life.

In the final analysis, I'm not so sure that my life adds up to much.

**SELF-ACCEPTANCE**

**Definition:**

**High Scorer:** Possesses a positive attitude toward the self; acknowledges and accepts multiple aspects of self including good and bad qualities; feels positive about past life.

**Low Scorer:** Feels dissatisfied with self; is disappointed with what has occurred in past life; is troubled about certain personal qualities; wishes to be different than one is.

1. When I look at the story of my life, I am pleased with how things have turned out.

2. In general, I feel confident and positive about myself.

3. I feel like many of the people I know have gotten more out of life than I have.
(-) 4. Given the opportunity, there are many things about myself that I would change.

(+)

5. I like most aspects of my personality.

(+)

6. I made some mistakes in the past, but I feel that all in all everything has worked out for the best.

(-)

7. In many ways, I feel disappointed about my achievements in life.

(+)

8. For the most part, I am proud of who I am and the life I lead.

(-)

9. I envy many people for the lives they lead.

(-)

10. My attitude about myself is probably not as positive as most people feel about themselves.

(-)

11. Many days I wake up feeling discouraged about how I have lived my life.

(+)

12. The past had its ups and downs, but in general, I wouldn't want to change it.

(+)

13. When I compare myself to friends and acquaintances, it makes me feel good about who I am.

(-)

14. Everyone has their weaknesses, but I seem to have more than my share.
GENERAL HEALTH

1. In general, would you say your health is excellent, very good, good, fair, or poor?
   1. POOR
   2. FAIR
   3. GOOD
   4. VERY GOOD
   5. EXCELLENT

2. During the PAST THREE MONTHS, how much pain have you had?
   1. NO PAIN AT ALL
   2. A LITTLE PAIN
   3. SOME PAIN
   4. A GREAT DEAL OF PAIN
   5. A VERY GREAT DEAL OF PAIN

3. During the PAST THREE MONTHS, how much has your health worried or concerned you?
   1. NOT AT ALL
   2. A LITTLE
   3. SOMEWHAT
   4. A GREAT DEAL
   5. A VERY GREAT DEAL

4. How does your health now compare to your health ONE YEAR ago?
   1. MUCH WORSE
   2. A LITTLE WORSE
   3. ABOUT THE SAME
   4. A LITTLE BETTER
   5. MUCH BETTER
MINIMUM DATA SET

SECTION E. PHYSICAL FUNCTIONING AND STRUCTURAL PROBLEMS

1. ADL SELF-PERFORMANCE (Code for resident's performance over all shifts during last 7 days - not including setup).

   0. INDEPENDENT - No help or oversight - OR - Help/oversight provided only 1 or 2 times during the last 7 days.

   1. SUPERVISION - Oversight, encouragement, or cueing provided 3+ times during last 7 days - OR - Supervision plus physical assistance provided only 1 or 2 times during the last 7 days.

   2. LIMITED ASSISTANCE - Resident highly involved in activity, received physical help in guided maneuvering of limbs, or other nonweight bearing assistance 3+ times - OR - More help provided only 1 or 2 times during the last 7 days.

   3. EXTENSIVE ASSISTANCE - While resident performed part of activity, over last 7 day period, help of following type(s) provided 3 or more times:
      - Weight-bearing support
      - Full staff performance during part (but not all) of last 7 days

   4. TOTAL DEPENDENCE - Full staff performance of activity during entire 7 days.

2. ADL SUPPORT PROVIDED (Code for most support provided over all shifts during the last 7 days; code regardless of resident's self-performance classification).

   0. No setup or physical help from staff

   1. Setup help only

   2. One-person physical assist

   3. Two + person physical assist
<table>
<thead>
<tr>
<th></th>
<th>Self-Performance</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. BED MOBILITY - How resident moves to and from lying position, turns side to side, and positions body while in bed.</td>
<td>0 1 2 3 4</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>b. TRANSFER - How resident moves between surfaces - to/from: chair, wheelchair, standing position (exclude to/from bath/toilet).</td>
<td>0 1 2 3 4</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>c. LOCOMOTION - How resident moves between locations in his/her room and adjacent corridor on same floor. If in wheelchair, self-sufficiency once in chair.</td>
<td>0 1 2 3 4</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>d. DRESSING - How resident puts on, fastens, and takes off all items of street clothing, including donning/removing prosthesis.</td>
<td>0 1 2 3 4</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>e. EATING - How residents eats and drinks (regardless of skill).</td>
<td>0 1 2 3 4</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>f. TOILET USE - How resident uses the toilet room (or commode, bedpan, urinal); transfers on/off toilet, cleanses, changes pad, manages ostomy or catheter; adjusts clothes.</td>
<td>0 1 2 3 4</td>
<td>0 1 2 3</td>
</tr>
<tr>
<td>g. PERSONAL HYGIENE - How resident maintains personal hygiene, including combing hair, brushing teeth, shaving, applying makeup, washing/drying face, hands, and perineum (excludes baths and showers).</td>
<td>0 1 2 3 4</td>
<td>0 1 2 3</td>
</tr>
</tbody>
</table>
3. BATHING - How resident takes full-body bath, sponge bath, and transfers in/out of tub/shower (Exclude washing of back and hair. Code for most dependent in self-performance and support. Bathing Self-Performance codes appear below.)

<table>
<thead>
<tr>
<th>0. Independent - No help provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Supervision - Oversight help only</td>
</tr>
<tr>
<td>2. Physical help limited to transfer only</td>
</tr>
<tr>
<td>3. Physical help in part of bathing activity</td>
</tr>
<tr>
<td>4. Total dependence</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Self-Performance</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 1 2 3 4</td>
<td>0 1 2 3</td>
</tr>
</tbody>
</table>
APPENDIX B

INTRODUCTORY LETTER SENT TO

ADMINISTRATORS/DIRECTORS OF NURSING HOMES
Dear Ms. Doe:

My name is Jocie Waldron, B.A.N., R.N. and I am a graduate student at Montana State University's College of Nursing. I am conducting a study regarding aspects of well-being in institutionalized elderly in rural Montana. I am, therefore, requesting permission to interview residents and administer questionnaires regarding levels of independence and health. This study has been approved by the Human Subject's Committee of Montana State University's College of Nursing. If you give permission to interview residents of Rural Montana Nursing Home, I will make an appointment with you to come to the nursing home. You will be consulted as to residents who fit the participant criteria of persons 65 years of age and older, who have lived in the nursing home for at least three months, and who are able to read and communicate in English.

The setting will be private and comfortable for the participants. Participants will not directly benefit from the study, but may be positively affected by expanding the knowledge base available to those who care for institutionalized elderly. Risks to participants are minimal, if any, and would be related to eye strain and fatigue. I shall attempt to curtail these risks by offering to read the questionnaires and mark resident's responses. Sessions can be scheduled in two thirty minute segments if the resident prefers or if fatigue is evident during the initial interview. Participation is entirely voluntary and participants can withdraw at any time with assurance that participation is not tied in any way to their care.

There are no costs to the participants. Neither will residents be monetarily reimbursed for their time. I have enclosed a copy of the verbal consent form to be used to obtain permission from each resident.

Participants will be interviewed using some structured questionnaires and asked for anecdotal information through direct semi-structured questionnaires. All data will be confidential, anonymous, and kept in a locked file cabinet accessed only by the investigator. Results of the study will be reported as group data.
To facilitate your reply, I am enclosing a letter for your signature acknowledging consent to access Rural Montana Nursing Home. A stamped, self-addressed envelope is also enclosed.

Thank you so much for your assistance with this research study.

Sincerely,

Jocie R. Waldron, B.A.N., R.N.
MSU Graduate Student

Enclosure
APPENDIX C

NURSING HOME CONSENT FORM
Nursing Home Consent Form
Aspects of Well-Being
in Rural Nursing Home Residents
Jocie R. Waldron, B.A.N., R.N.
Montana State University
College of Nursing

ADMINISTRATOR/DIRECTOR OF NURSING'S STATEMENT

The above named research study has been explained to me, and I grant access to Jocie Waldron, B.A.N., R.N. to this nursing home for the purpose of data collection.

_____________________________  ___________________________
Signature of Administrator/Director  Date

Rural Montana Nursing Home

Nursing Home
APPENDIX D

INTRODUCTORY LETTER TO

POTENTIAL PARTICIPANTS
To Potential Study Participant:

I am a student in the graduate nursing program of Montana State University. As part of the educational requirements I shall be conducting a research study regarding aspects of well-being in rural nursing home residents.

The study involves a number of questions concerning feelings about individual well-being related to life in the nursing home. I shall be the only person conducting the interviews and presenting the questionnaires. All material will be held confidentially with no identifying names. Participation in the study is entirely voluntary. You may choose to stop the interview at any time and this will not affect your care in the nursing home.

If you have any questions I may be reached by calling 933 - 8451. If I am not at home please leave a message and I will return your call as soon as I can.

Thank you,

Jocie R. Waldron, B.A.N., R.N.
APPENDIX E

VERBAL CONSENT FORM
Verbal Consent Form

Aspects of Well-Being
in Rural Nursing Home Residents
Jocie R. Waldron, B.A.N., R.N.
Montana State University
College of Nursing

PURPOSE
With the increasing number of elderly relocating to nursing homes, it is important to study resident's perceptions regarding their well-being in the nursing home setting. This study will attempt to learn more about those feelings through questionnaires and interviews.

BENEFITS and RISKS
Participation in the study may not benefit you directly, but the information you provide will, in the future, benefit others by increasing the knowledge base of those who care for elderly persons. The only potential risks involved are those of eye strain and fatigue.

PROCEDURES
If you choose to participate in the study you will be interviewed and asked to fill out questionnaires concerning feelings regarding your individual well-being in the nursing home setting. Interviews are expected to take one hour, which can be divided into two thirty-minute periods if needed. The questionnaires can be read to you and your answers marked by the investigator at your request.

VOLUNTARY PARTICIPATION and CONFIDENTIALITY
Your participation is completely voluntary and you may withdraw at any time. No penalties of any kind will result from withdrawal. Your answers will be not be marked in any way to identify you. The data will be kept in a locked file cabinet and only the investigator will have access to the information. Results of the data will be reported as group data. Individual interview data will not be shared with the nursing home staff or administrators.

COSTS and REIMBURSEMENT
There are no financial costs or reimbursement to you for participating in this study.
PARTICIPANT'S STATEMENT
The study described above has been explained to me and I voluntarily give verbal consent to participate. I have had an opportunity to ask questions about the activity and understand future questions will be answered by the investigator or the faculty chair of the thesis committee. The investigator (Jocie Waldron, R.N.) may be reached at 933-8451. Kay Chafey, PhD., chair of the thesis committee, is available at 406-994-3783 to answer further questions.

Signature of Investigator ___________________ Date ____________
APPENDIX F

CONSENT LETTER TO USE INSTRUMENT
Dear Ms. Waldron,

I received your letter today regarding the Desired Control Measure. I am on sabbatical, am infrequently in my office, and am in a rush.

Please accept this letter as giving you permission to use the Desired Control Measure. I refer you to Chapter 4 of Volume 3 of "Research with the Locus of Control Construct" by Herbert M. Lefcourt (Ed.), Academic Press, 1981. This chapter will provide you with a very complete overview of the extensive development of the measure and reference to findings not published elsewhere. The chapter also contains the complete and final version of the Desired Control Measure including instructions, scoring. There is also a short version with the appropriate psychometric information. The instrument is exceptionally robust, personally meaningful to seniors and certainly relevant to the topic you propose to study.

A more recent publication is in a book by Robinson and Shaver, second edition published around 1992. The first Robinson and Shaver book was published in the 1970's (when I was a grad. student) and it was highly valuable and well cited as a source of recommended social and personality measures. Thus it was with some pride that I learned they published my measure in the more recent edition. The book contains nothing but measures with short summaries and key references.

I am no longer doing research in the Gerontology area, having moved to studies of interpersonal processes, family psychology and systemic approaches to therapy.

People from the midwest always strike me a special kind of people and I love your "Big Sky" country in Montana. I was born on the Canadian prairies. May you have great success in your research.

Sincerely yours,

David W. Reid, PhD, C.Psych.
March 30, 1995

Jocie Waldron, RN
MSU Graduate Student
P.O. Box 352
Clancy, MT 59634
(406) 933-8451

Dear Jocie:

It was a pleasure talking with you on the telephone. You certainly have my permission to use the Chang Situational Control of Daily Activities instrument provided you can share the raw data with me after you have completed your study. I am mailing you my newly revised version, and am working on obtaining some reliability data when used with elderly subjects. As more data can be collected about the instrument, I will be happy to share the findings with you.

Enclosed also are some articles related to the articles. I have some correlations data which have not been written up as yet. Keep in touch, and I wish you the very best in your studies.

Sincerely yours,

Betty L. Chang, RN DNSc
Professor