

Growing Old:  
A Cross-Sectional Study of the  
Effects of Institutionalization  
upon the Elderly's Locus of Control

A Thesis  
Submitted to the Faculty  
Of Saint Meinrad College of Liberal Arts  
In Partial Fulfillment of the Requirements  
For the Degree of Bachelor of Arts

Michael J. Kowal  
Chuck Bard  
May 22, 1981  
Saint Meinrad College  
Saint Meinrad, Indiana



### Abstract

This study explores the possibility that institutionalization reduces the elderly's level of autonomy. Other areas of investigation included whether levels of autonomy decrease more in males than in females in the elderly population of nursing homes and if an increase in age affects a decrease in levels of autonomy in the elderly in nursing homes. The 41 subjects were randomly selected from local Southern Indiana nursing homes. Prerequisites for participation in the study were: over sixty-five years of age, able to carry on a coherent conversation, able to complete the questionnaire, be ambulatory, and in good psychological health. The subjects were administered an abbreviated form of the James Internal-External Locus of Control test. Findings suggest that there is no relationship between length of stay and levels of autonomy, gender and levels of autonomy, or age and levels of autonomy. The results showed that the best predictive measurement of the experimental group's locus of control to be the group mean. Speculating in this area, it is hypothesized that a ceiling effect may be operating. Furthermore, this ceiling effect may be hypothesized as a manifestation of role-reversal.

## Chapter I

### Introduction

The growing use of nursing homes for the care of the elderly has been well documented (Blenkner, 1969; Botwinik, 1973; Warren, 1975). The majority of research shows that institutionalization has negative effects on the elderly (Gordon & Vinacky, 1972; Hickey, 1970; Kalish, 1967; Lieberman, 1969; Lieberman, Prock, & Tobin, 1968; Tobin & Lieberman, 1976; Townsend, 1969; Warren, 1975; and Williams, 1963). This study explores the possibility that institutionalization reduces the patient's level of autonomy (Hickey, 1970; Kalish, 1967; Lieberman et al., 1968; and Townsend, 1962).

### Literature Review

Surveying the literature, several pertinent issues arise:

- 1) the normal and expected dependency of the elderly (Arling, 1976; Gordon & Vinacky, 1972; Hickey, 1970; Jackson, 1974; Kalish, 1967; and Warren, 1975);
- 2) the societal role in the elderly's adjustment and level of autonomy (Goldin, Perry, Margolin, Stotsky, & Bood, 1972; Hickey, 1970; and Kalish, 1967);
- 3) the importance of gender in levels of autonomy of elderly in nursing homes (Arling, 1976, Gordon & Vinacky, 1972; Jackson, 1974; Lieberman & Lakin, 1963; and Warren, 1975);
- 4) the differentiation of institutional effects on the elderly from pre-institutional effects (Gordon & Vinacky, 1972; Hickey, 1970; Lieberman, 1969; Lieberman & Lakin, 1963; Lieberman et al., 1968; and Tobin & Lieberman, 1976);
- 5)

the long-term effects of institutionalization (Lieberman, 1969; Lieberman et al., 1968; and Townsend, 1962); and 6) the variables which reduce the validity of previous studies (Lieberman et al., 1968).

The issue of normal and expected dependency requires elaboration (Arling, 1976; Hickey, 1970; Jackson, 1974; Kalish, 1967; and Warren, 1975). The dependence/independence balance is especially delicate in the elderly (Blenkner, 1969; and Warren, 1975). Age, out of necessity, creates one or more of five basic forms of dependency as noted by Goldin et al., 1972. These five basic forms of dependency are: social, financial, psycho-medical, emotional, and institutional.

Social dependency arises from the decrease of peer group and family, creating a situation where the elderly have to depend more and more on fewer people (Arling, 1976; Goldin et al., 1972; and Nelson & Winter, 1975). Financial dependency follows from inadequate pension plans and savings and from rising health care costs for the elderly (Arling, 1976; Jackson, 1974; Kalish, 1967; Nelson & Winter, 1975; and Warren, 1975). Psycho-medical dependency is a reality-based dependency stemming from medical needs. It follows naturally from illness and should be accepted as a result of the illness (Goldin et al., 1972; Gordon & Vinacky, 1972; Hickey, 1970; Jackson, 1974; Kalish, 1967; Nelson & Winter, 1975; and Warren, 1975). However, Lieberman (1963) states that crisis, which is known to be important to the elderly's level of autonomy, is unrelated to specific physical or economic stress.

Heather cited by Goldin et al. (1972) differentiated between

two kinds of dependency: instrumental and emotional. Instrumental dependency is portrayed as needs for help. Emotional dependency is seen as needs for reassurance, affection, or approval. This report investigates the latter with respect to length of stay in an institution.

Institutional dependency can result in any of the five types of dependency mentioned earlier, and in any combination. For the purpose of this study, the following definition of institution is used:

A place of residence and work where a large number of individuals, cut off from the wider society for an appreciable period of time, together lead an enclosed, formally administered round of life....institution established to care for persons felt to be both incapable and harmless, these are the homes for the blind, the aged....(Krammer & Krammer, 1976, p. 26)

Societal influences have a profound effect on the elderly's self-concept and attitudes towards impending dependency (Hickey, 1970; and Kalish, 1967). These studies hypothesize several reasons for societal influence. The "American dream of independence" and the "individual's freedom to pursue his happiness" are values that are internalized by the individual and which work against the elderly person by causing anxiety over impending dependency. Reactions of others towards the increasing dependency escalates his/her anxiety (Kalish, 1967).

Much of society's influence is due to the phenomenon of "role

reversal" (Arling, 1976; Kalish, 1967). Role reversal can occur as part of the individual's life cycle. The individual's life cycle develops from complete dependency as an infant to relative autonomy as an adult. Then, as one reaches the age of retirement and beyond, development reverts back to a more dependent phase. This latter phase may be enhanced by the nursing home environment (Goldin et al., 1972).

However, since the dependent response may not be specifically extinguished (in developing from child to adult), it might be recovered dramatically if in later life the individual is placed in a context of strong and frequent dependency reinforcement (e.g. a long hospital stay). (Goldin et al., 1972, p. 279)

That is to say, the patient's primary needs for food, clothing, and shelter are satisfied regardless of his or her behavior. Thus, the environment is a breeding ground for dependency.

Gender is an important factor when looking at levels of autonomy for the elderly and the individual's adjustment to a change in the level of autonomy (Gordon & Vinacky, 1972). In a report by Jackson (1974), both male and female patients agreed (84%) that adjustment to nursing homes was harder for men. The reason given was that women usually adopt a more dependent role in their lives than men. The effects of retirement on men is more acutely felt. An important factor in patient self-concept is the traditional male-female stereotype. In institutions such as nursing homes, the patients are treated alike, thus damaging an already weak male ego, impaired

by increased dependency.

Lieberman and Lakin (1963) reported that it was important for men to assume an invalid role during transition from an autonomous life in the general community to the more dependent life in an institution. Lieberman and Lakin theorize that the invalid role serves two purposes: "It resolves the conflict between dependency and the ego ideal, and it provides a way of organizing their self-concept to give some meaning to their identity." (p. 498) However, they note that the invalid role is not adequate once in the institution.

Lieberman and Lakin (1963) go on to say that females' major concern over entering an institution is rejection by family and not a loss of personal effectiveness, as males feel. The transition is easier for females because they feel less discontinuity about their roles and less conflict over accepting the implied dependency of their new status.

The differentiation of institutional effects on the elderly from non-institutional effects requires elaboration. Lieberman, in conjunction with others, has done the pioneering work on this issue (Gordon & Vinacky, 1972; Hickey, 1970; Lieberman, 1969; Lieberman & Lakin, 1963; Lieberman et al., 1968; and Tobin & Lieberman, 1976). The general conclusion of his research is that many effects attributed to the institution can be more properly applied to the pre-admission process of decision to enter an institution, such as filling out the forms necessary, awaiting institutionalization, and the adjustment which may extend to the first year in the institution.

These effects may include:

....mortification and curtailment of the self, institutional dependency, hospitalism, depersonalization, institutionalism, regressive patterns to infantile reactions, apathy reactions including severe withdrawal, and psychological institutionalism....(p. 343)

The one thing that is clear is that those persons in nursing homes who live in institutions where employees have a high accountability (held responsible for their care given) experience less of these effects than those who do not (Tobin & Lieberman, 1976).

The effects of long-term institutionalization need to be investigated (Lieberman, 1969; Lieberman et al., 1968). Early investigations offer no conclusive results. Gitlitz cited by Lieberman (1969) says that no mental or physical differences exist between institutionalized and non-institutionalized elderly. Townsend, also cited in Lieberman (1969), states that residents of ten years did not differ from new residents. On the other hand, Lieberman citing Webb (1959) concludes that long-term residents show more concern over re-entry into community and less willingness to attempt it. Lieberman states in this report that many institutional effects are overdrawn. However, Tobin & Lieberman (1976) state that institutions do have long-term effects.

In doing research into the effects of institutionalization on the elderly, many problems become apparent. Lack of an adequate control group or comparison group or error due to selective attrition within the institutional population seems to be the most common



threats to internal validity (Lieberman et al., 1968).

The purpose of the present cross-sectional study is to determine if there exists any long-term institutional effects on the autonomy of the individual and does gender play any role in determining autonomy. This question is of great importance for, as Hickey (1970) states, rehabilitation should increase "freedom from emotional and mental dependence" (p. 369).

In dealing with changes in autonomy there is need of an instrument and a concept that expresses coherently some connection with a person's degree of independence. One such concept is the idea of perceived control. Since the primary interest is in a person's own view about how his/her environment and life are being controlled and who is doing the controlling, the concept of perceived control has direct bearing. The extent to which a person believes that he/she or others control his/her life, or where he/she perceives control, is the extent to which he/she can be considered an external person or an internal person (Lefcourt, 1976). Both of these terms and the idea of perceived control are embodied in the concept of locus of control. If a person views his locus of control as being outside him/her, then he/she is considered to be an external person. The extent that a person views his/her life to be controlled by himself/herself is the extent that he/she can be considered to be an internal person. Completely internal or external persons do not exist (Lefcourt, 1976). A person who is indeed completely internal could not exist if that perception was correct. He/she would be considered to be psychotic. He/she would not need a world to live in. A

completely external person would die of the lack of will to live. He/she would have no need to continue if his/her perceptions were correct (Lefcourt, 1976).

This brings up two important points in the consideration of the concept of perceived control. The first point is an emphasis on the word 'perceived'. A person can perceive his or her life situation to be one of an external orientation when it is not really so (James & Kotter cited by Lefcourt, 1976). However, having done so, he/she would react accordingly leaning on external factors more and more, thus causing a more external situation. Likewise, a person who has little control over his/her life situation at the time, such as a completely bedridden patient in a hospital, may, by changing his/her perception to be within himself, take a more active part in his/her own well being and recovery. The point here is that a person may actually perceive his/her life situation to be completely internal. He/she may consider himself/herself to be the only person acting on his/her life and situation. This obviously cannot be so since we live in a world of people. However, the perception may exist. It is important to recognize the existence of a faulty perception of control in order to be aware of this possibility in the consideration of data (Lefcourt, 1976).

The second point involves the idea of the changeability of locus of control. In a series of experiments summarized by Seligmann, Maier, and Solomon (1969), dogs were given shocks in two modes. One was a helpless mode where the dog was suspended in a harness and given varying degrees of shock. The other mode was where the

dog was placed in a two-way shuttle box with an electrifiable grid floor. Shocks were administered on one side. To escape, the dog had to jump over a low barrier to the other side. Three dogs were given the first mode shock, then the second mode shock, Three other dogs were given the second mode shock alone. The results were that the pre-treated dogs required much longer to learn how to escape the box than did the control dogs. Only one pre-treated dog learned how to escape by himself/ The others had to be forced over as many as twenty times before they learned to do this on their own (Lefcourt, 1976).

This experiment demonstrates two things. The first is that locus of control is changeable. The pre-treated dogs showed a hopeless external locus in relation to the subsequent task. They could control the shocks in the box, but due to their helplessness in the harness they learned not to try. This learned helplessness was appropriate for the harness, but not for the box. After being shown how to escape, the pre-treated dogs did control their shocks. This changeable quality of the perception of control shows that locus of control is a quality that can be changed and not a fixed quantity (Lefcourt, 1976). If locus of control were a fixed quantity, then the idea of a locus of control and perceived control would be meaningless and unsound. The second idea that this demonstrates is that, as stated before, the perception of control need not be realistic to be accepted by the individual (Lefcourt, 1976).

Locus of control is a valid concept involving the premise of a perception of control. Locus of control testing utilizes questions

geared to assess a person's degree of fatalism, perception of the power of chance factors versus the concerted effort of a person to succeed in the consideration of his/her lot in life, a person's ability to make decisions and to have faith in their effectiveness, and a person's perception of his/her control over others. The graded responses to these questions add up to a quantity that is compared to a standard for the general population to determine the extent of externalness. The aspects involved in locus of control are taken from past, proven concepts and are graded together as a locus of control quantity (Lefcourt, 1976).

This study will attempt to answer several questions: Is there a positive correlation between length of stay and decrease in autonomy? If autonomy is a factor of pre-admission and actual admission, one might suspect a positive correlation between length of stay and increase in autonomy. Is this true? Is there any significant difference for either of the above correlation based on gender?

The literature review covered several main points. Due to societal structures and physical progress through life, there exists a normal and expected dependency for the elderly person. Also due to societal structures and the failing of physical or mental capacities, elderly in our society are many times institutionalized and as a result, they experience institutional effects and pre-institutional effects. These effects include a decrease in levels of autonomy and are linked to gender in the nursing home.

#### Conclusions from Literature Review

The literature review imputes several conclusions that are pertinent to the present study:

1. There exists a normal and expected dependency for the elderly, i.e. social dependency (Arling, 1976; Goldin et al., 1972; and Nelson & Winter, 1975); financial dependency (Arling, 1976; Jackson, 1974; Kalish, 1967; Nelson & Winter, 1975; and Warren, 1975); psycho-medical dependency (Goldin et al., 1972; Gordon & Vinacky, 1972; Hickey, 1970; Jackson, 1974; Kalish, 1967; Nelson & Winter, 1975; and Warren, 1975); and instrumental and emotional (Goldin et al., 1972).
2. Degree of autonomy in an institution may be more properly attributed to pre-institutional effects (Gordon & Vinacky, 1972; Hickey, 1970; Lieberman, 1969; Lieberman & Lakin, 1963; Lieberman et al., 1968; Tobin & Lieberman, 1976).
3. There exists long-term effects from institutionalization including decrease in levels of autonomy (Lieberman, 1969; Lieberman et al., 1968; Tobin & Lieberman, 1976).
4. There exist variables which reduce testing validity of the elderly in an institution. These variables include the lack of an adequate control group or comparison or error due to selective attrition within the institutional population and mortality. (Lieberman, 1969; Lieberman & Lakin, 1963; Lieberman et al., 1968; Tobin & Lieberman, 1976).
5. Gender plays an important role in self-concept and level of autonomy for elderly in nursing homes (Gordon & Vinacky, 1972; Jackson, 1974; Lieberman & Lakin, 1963).

#### Research Hypotheses

- $H_{01}$  : The length of stay in a nursing home has no effect on the autonomy of the elderly.
- $H_1$  : The length of stay decreases the levels of autonomy for the elderly in nursing homes.
- $H_{02}$  : Levels of autonomy do not discriminate between gender of the elderly in nursing homes.
- $H_2$  : Levels of autonomy decrease more in males than in females from the elderly population in nursing homes.

$H_{03}$ : Age has no effect on levels of autonomy in the elderly in nursing homes.

$H_3$ : An increase in age affects a decrease in levels of autonomy in the elderly in nursing homes.

In notational form, the research hypotheses are:

$$H_{01}: \mu_a - \mu_b = 0$$

$$H_1: \mu_a - \mu_b < 0$$

$$H_{02}: \mu_a - \mu_b = 0$$

$$H_2: \mu_a - \mu_b < 0$$

$$H_{03}: \mu_a - \mu_b = 0$$

$$H_3: \mu_a - \mu_b < 0$$

## Chapter II

### Instrumentation

The vehicle for data collection was an abbreviated form of the James Internal-External Locus of Control Scale (James, 1957). The scale tests attitudes concerning 1) the future, 2) personal effectiveness or influence, 3) chance and its role in life, 4) other reliability, and 5) other's influence on the subject's life. The five areas are integrated into a single score (see Appendix A). The responses were scaled as "disagree strongly", "disagree", "agree", and "agree strongly". Whole number points were given for each response ranging from three points for "disagree strongly" to zero points for "agree strongly".

The abbreviated form was deemed necessary and adequate based on a pilot study conducted using thirty subjects. The subjects of the pilot study and the experimenters met in a room provided by the institution. Each subject was given an answer sheet and a pen, if their dexterity permitted. If they were unable to use a pen the experimenters marked their answers. The questions were read aloud and then individually as the experimenters went to each subject to insure proper marking of the answer sheet. Deficiencies appeared almost immediately in this situation. Subjects regularly compared answers, with some of the subjects acting as leaders, their answers being duplicated by the others. Also, the length of the questionnaire was prohibitive. The original version was sixty items. The thirty odd numbered items were distractors with only the even

numbered items being scored. The subjects were unable to complete all sixty items due to fatigue.

To prevent answer sharing and prohibitive fatigue the James questionnaire was shortened by deleting the odd-numbered distractors and administered individually. The resulting test, using forty-one other subjects, was subjected to an Alpha-test ( $R_{II} = \frac{N}{N-1} \frac{\sigma_T^2 - \sum \sigma_i^2}{\sigma_T^2}$ ), (Anastasi, 1976). This test yielded a  $R_{II} = .92$  indicating a strong inter-item consistency, high reliability. The construct was homogeneous. No test of validity was executed and there exists no information as to the validity of the abbreviated version of the James questionnaire.

#### Procedure

Nursings homes in Southern Indiana were randomly selected and were sent letters explaining the present study and requesting approval to draw subjects from the home (see Appendix B). Out of seven homes approached five approved and offered cooperation. One of the five homes was used for the pilot study and one home was unfit for the present study due to characteristics of its population (i.e., all residents of this home were non-ambulatory). Forty-one subjects were drawn from the remaining three homes. These subjects were selected by the staff as coherent, ambulatory and free from psychological problems. Coherency was required in order to complete the questionnaire and being ambulatory and free from psychological problems were necessary to avoid confounding the results.



The two experimenters tested roughly equal number of female and male subjects ( $N_1=20$ ,  $N_2=21$ ) to eliminate possible systematic bias. A t-test was performed ( $t=2.13$ ) which was non-significant at the .01 level. Therefore the two groups were pooled for statistical analysis. On the subjects' test date, they were asked if they would participate in a social questionnaire. All consented and were brought by staff personnel to the interviewing room individually. The two interviewers operated out of the same room. Due to the pacing of the interviews, the problem of shared answers was eliminated.

A protocol was then read to each subject (see Appendix C). The subjects verbally consented to the protocol. The name and gender of each subject was recorded and later supplemented with their length of stay and age which were recovered from the official records. The test was then read aloud to each subject with answers recorded by the experimenter. Confidentiality was assured and guidelines designated by Ethical Principles in the Conduct of Research with Human Participants were followed.

The study took the form of a one shot case study. The results from the three homes were then compiled and analyzed as a group and separately as males and females.

### Subjects

The subjects ( $N=41$ ) were drawn from a population of local Southern Indiana nursing care facilities that care for the elderly person. Twenty subjects (11 female & 9 male) came from one home, fourteen subjects (8 female & 6 male) came from the second home,

and seven subjects (4 female & 3 male) came from the third home. The subjects were required to be over sixty-five years of age, able to carry on a coherent conversation, able to complete the questionnaire, be ambulatory, and in good psychological health. The male subjects had a mean age of 77.3 years (SD=10.9 years). They averaged 2.6 years in the institution (SD=2.1 years). The female mean age was 79.7 years (SD=9.16 years). Their mean length of stay was 2.8 years (SD=2.2 years). The overall age was 78.7 years (SD=9.9 years). The total group's mean length of stay was 2.7 years (SD=2.1 years). Age and length of stay were not distinguishing variables for gender.

#### Statistical Analysis

In order to test whether the independent variables (age, gender, and length of stay) are adequate predictor variables of locus of control, the results were subjected to a step-wise multiple regression design in the form of:

$$y = a + B_1 X_1 + B_2 X_2 + B_3 X_3 \text{ where}$$

a = y intercept,

$X_1$  = length of stay,

$X_2$  = gender,

$X_3$  = age, and

$B_j$  = regression weight attributed to variables  $X_1$ ,  $X_2$ , and  $X_3$ .

In order to perform the multiple regression analysis it was first necessary to establish that the independent variables were orthogonal. Therefore, point biserial correlations were performed between gender and age, and gender and length of stay; a pearson r between age and length of stay was also calculated. Since the

multiple regression proved insignificant, possible explanations were explored by performing a t-test between the experimental group and comparison groups. These tests were done to determine whether the experimental group (elderly in nursing homes) differed in terms of their dependence when compared to a normal group (e.g. undergraduates) or a group where dependence would be expected (e.g. physically handicapped).

## Chapter III

Results

The experimental group is described by Table 1.

---

Insert Table 1 about here

---

The relationship between independent variables is described by point biserial analysis and Pearson  $r$  calculation in Table 2.

---

Insert Table 2 about here

---

Step-wise multiple regression results are contained in Table 3.

---

Insert Table 3 about here

---

Comparisons of mean (grand) to other groups in terms of dependence are shown in Table 4.

---

Insert Table 4 about here

---

Summary of Statistical Findings

Results from the point biserial demonstrated no significant relationship between gender and age, and gender and length of stay. The Pearson  $r$  between age and length of stay was non-significant. All independent variables were orthogonal.

In the step-wise multiple regression measure both the multiple correlation coefficient and the F-value for analysis of variance for age against locus of control and gender against locus of control were non-significant. For length of stay and locus of control, the multiple correlation coefficient was non-significant. However, the F-value for analysis of variance was significant ( $F=1.58$ ,  $p<.05$ ,  $df=40,38$ ,  $MS_e=150.86$ ).

Comparison of the experimental group locus of control grand mean with college undergraduates yield a significant t-score. Comparison of the experimental group with physically disabled yielded a significant t-score. Specifically, the experimental group was more dependent than either comparison group.

#### Discussion of Findings

Based on the literature, dependency (locus of control) was hypothesized to increase over time spent in a nursing home. Also hypothesized was that males would become more dependent than females. A third hypothesis was that increasing age affects a decrease in levels of autonomy. The results of the study failed to substantiate these hypothesis. As Lieberman et. al. (1968) speculated, significant changes occur in the pre-institutional phase, and then subsequently stabilize at a point lower than pre-admission levels after a period of a year. We have found no evidence in this study to support this theory. To the contrary, our results demonstrate that levels of autonomy and length of stay in a nursing home, for males and females, are unrelated. The relation between

age and locus of control is non-significant. The relation between gender and locus of control is non-significant also. The existence of long term effects from institutionalization, including a decrease in levels of autonomy are not evidenced by this research. Because the independent variables fail to distinguish between members within the group the best predictive measure of dependence in this sample is the group mean. This may be due to a "ceiling effect" which confounds significance because of high locus of control value such that any degree of variation actually present would be non-significant. It is speculated, therefore, that the process of institutionalization created a population distinct from normative groups used in the test. This is especially evidenced in that the locus of control scores of the physically handicapped, who would be expected to have a fairly external score, were more internal than the physically capable institutionalized elderly. This implies the presence of some confounding aspect specific to institutions and/or the process of institutionalization. One such explanation is the ceiling effect. Thus, the existence of the ceiling effect is an area for further research. Another area for research may be in determining whether the ceiling effect is a manifestation of role-reversal. This may be postulated because of the more external locus of control evidenced by the elderly when compared to norm groups. Care should be taken in the interpretation of norm group comparisons, however, since the norm groups used the long form of the James test, where the experimental group used the short form.

### Delimitations

The study, while prone to the threats to internal validity produced by selective attrition, history, and lack of comparison group, is exempt from the threats produced by maturation and mortality by the very nature of the one-shot test.

Selective attrition provides a real threat to validity in that the subject population and the actual number of subjects differ greatly. The subjects for this test were a small percent of the actual nursing home population which in turn is a small percent of elderly in the U.S. Because of this, generalizability to elderly in the U.S. is not possible. Neither does it generalize to nursing home populations. The necessity of such a restricted population was due to properties inherent in the general nursing home population that confound experimental control of the concept of locus of control.

The threat to validity due to history was not controlled due to experimental practicality. Aspects of the subjects's personal history which would seem pertinent to this study are specifically concerned with personality development prior to institutionalization (i.e. levels of autonomy), and the impact of the process of institutionalization. These would affect later levels of autonomy such as are investigated in this study.

The fact that there was no specific comparison group of elderly makes the generalizability of this study more difficult. Prior research yields no comparison groups of elderly. However,

the lack of a control group does not confound the results or conclusion. It does limit the generalizability and obscures possible trends.

This study is more applicable to empirical research, but can be used to describe a segment of nursing home population and to describe the impact of institutionalization after admission. Length of stay seems to have no significant relation to locus of control for either females or males. These results demonstrate a need for further study in the area of institutional effects on autonomy.



Table I

Statistical Discription of  
Experimental Group

<u>Characteristic</u>	<u>Females</u>	<u>Males</u>	<u>Combined</u>
Mean Age	79.74	77.33	78.68
Standard Deviation	9.16	10.89	9.95
Mean Length of Stay	2.77	2.57	2.68
Standard Deviation	2.15	2.11	2.14
Mean James Score	64.00	67.72	65.63
Standard Deviation	10.96	13.80	12.28

Table II

Relationship Between Independent Variables:Point-Biserial Values & Pearson r value

<u>Variables</u>	<u>Value</u>
Gender X Age	$r_{\text{pbi}} = .12$ , NS
Gender X Length of Stay	$r_{\text{pbi}} = .05$ , NS
Age X Length of Stay	$r = .04$ , NS

Table III

Step-Wise Multiple Regression Results

<u>Variables</u>	<u>Multiple Correlation Coefficient</u>	<u>Standard Estimate of Error</u>	<u>F-score</u>	<u>Degrees of Freedom</u>	<u>t-score</u>
Age X Locus of Control	+ 0.27	12.27	1.01 NS	40,38	-0.64 NS
Gender X Locus of Control	+ 0.26	12.17	1.33 NS	40,38	1.03 NS
Length of Stay X Locus of Control	+0.20	12.18	1.58 p<.05	40,38	1.26 NS

Table IV

Comparisons of James Score of  
Experimental Group to Other Groups

<u>Group</u>	<u>N</u>	<u><math>\bar{X}</math></u>	<u><math>s^2</math></u>	<u>t-score</u>
Elderly	41	65.63	150.80	
X Undergraduates	80	37.00	144.00	12.325 $p < .01$
X Physically Disabled	30	41.60	10.89	10.353 $p < .01$

## Appendix A

Questions for Locus of Controlfrom the James Scale

1. Wars between countries seem inevitable despite efforts to prevent them.
2. It is usually true of successful people that their good breaks far outweigh their bad breaks.
3. Many times I feel that we might just as well make many of our decisions by flipping a coin.
4. The actions of other people toward me many times have me baffled.
5. Getting a good job seems to be largely a matter of being lucky enough to be in the right place at the right time.
6. A great deal that happens to me is probably just a matter of chance.
7. I feel that I have little influence over the way people behave.
8. Much of the time the future seems uncertain to me.
9. Some people seem born to fail while others seem born for success no matter what they do.
10. It is difficult for ordinary people to have much control over what politicians do in office.
11. I feel that many people could be described as victims of circumstances beyond their control.
12. It seems many times that the grades one gets in school are more dependent on the teacher's whims than on what the student can really do.
13. It isn't wise to plan too far ahead because most things turn out to be a matter of good or bad fortune anyhow.
14. I can't understand how it is possible to predict other people's behavior.

15. When things are going well for me I consider it due to a run of good luck.
16. There's not much use in trying to predict which questions a teacher is going to ask on an examination.
17. Most people don't realize the extent to which their lives are controlled by accidental happenings.
18. I have usually found that what is going to happen will happen, regardless of my actions.
19. Most of the disappointing things in my life have contained a large element of chance.
20. I don't believe that a person can really be a master of his fate.
21. Success is mostly a matter of getting good breaks.
22. Events in the world seem to be beyond the control of most people.
23. I feel that most people can't really be held responsible for themselves since no one has much choice about where he was born or raised.
24. Many times the reactions of people seem haphazard to me.
25. There's not much use in worrying about things -- what will be, will be.
26. Success in dealing with people seems to be more a matter of the other person's moods and feelings at the time rather than one's own actions.
27. I think that life is mostly a gamble.
28. Many times I feel that I have little influence over the things that happen to me.
29. Sometimes I feel that I don't have enough control over the direction my life is taking.
30. Life is too full of uncertainties.

## Appendix B

Dear ,

As members of a growing number of psychologists who are interested in gerontological issues, we are presently conducting a research study exploring the relationship between locus of control and length of stay in nursing homes. This research will constitute our senior thesis at Saint Meinrad College. This thesis is a requirement for a degree in psychology.

For our research it is vital to collect data from patients residing in nursing homes. We will be using the James Questionnaire for determination of locus of control as a vehicle for our data collection. Administering the test will be done personally and will require approximately one hour per person. Subjects are to be chosen randomly from the over-sixty and ambulatory segment of the nursing home population. All patient participation will be voluntary.

We request your permission to come into your facility to administer the test. Times can be arranged at your convenience. We wish to assure you that all information collected will remain confidential. Only test scores and other pertinent information regarding the individual (i.e. sex, length of residence) will be used in our report. This research is for experimental purposes only.

If you have any questions or comments regarding our research or your part in it please feel free to write or telephone (collect) us at the college. Thank you in advance for your kind cooperation and attention.

Sincerely yours,

Chuck Bard  
St. Meinrad College  
St. Meinrad, IN 47577  
812/357-6382

Michael J. Kowal  
St. Meinrad College  
St. Meinrad, IN 47577  
812/357-6366

## Appendix C

### Protocol

Below are a number of statements about various topics. They have been collected from different groups of people and represent a variety of opinions. There are no right or wrong answers to this questionnaire. For every statement there are large numbers of people who agree and disagree. Please indicate whether you agree or disagree with each statement that follows. Answering this questionnaire is purely voluntary. You are free to fill it out or not to fill it out. No one is requiring you to do so. If you wish, you may stop work at any time. However, we would appreciate your efforts in completing the questionnaire. Your answers will in no way affect you personally. The results are only to be a part of an attitudinal study of nursing home residents. This study is a necessary requirement for my graduation from St. Meinrad College. If there are no questions, we can begin.



## References

- Anastasi, A. Psychological testing. Macmillian Publishing Co., Inc. 1976.
- Arling, G. The elderly widow and her family, neighbors, and friends. Journal of Marriage and the Family. 1976, November, 757-767.
- de Beauvoir, S. The coming of age. New York: G.P. Putnam's Sons, 1972.
- Bier, W.C. Ed. Aging: it's challenge to the individual and to society. Pastorial Psychology, 1974, Series #8.
- Birren, J.E., & Woodruff, D.S. Eds. Aging: scientific perspectives and social issues. New York: P. Van Nostrand Co., 1975.
- Botwinick, J. Aging and behavior. New York: Springer Publishing Co., 1973.
- Brearley, C.P. Social work, aging, and society. London & Boston: Routledge & Kegan Paul, 1975.
- Brewer, R.M., & Scott, F.G. Perspectives in aging II: Operational focus. Eugene, Oregon: Oregon Center for Gerontology, 1971.
- Bruning, J.L. Computational handbook of statistics. Illinois: Scott, Foresman and Company, 1977.
- Burger, S.G., & E'erasmo, M. Living in a nursing home. New York: Seabury Press, 1976.
- Burros, O.K. Ed. The fourth mental measurements yearbook. New Jersey: The Gryphon Press, 1953.
- Burros, O.K. The sixth mental measurements yearbook. New Jersey: The Gryphon Press, 1965.
- Butler, R.N. Why survive? being old in america. New York: Harper & Row, Publishers, 1963.
- Campbell, D.T., & Stanley, J.C. Experimental and quasi-experimental designs for research. Chicago: Rand McNally College Publishing Company, 1963.
- Dacidson, H.H., & Kruglov, L. Personality characteristics of the institutionalized aged. Journal of Consulting Psychology, 1952, 16, 5-12.
- Eisdorfer, C., & Lawton, M.F. The psychology of adult development and aging. Washington: American Psychological Association, 1973.

Ethical principles in the conduct of research with human participants.  
Washington: American Psychological Association, Inc., 1973.

Gordon, S.K., & Vinacke, W.E. Self- and ideal-self-concepts and dependency in aged persons residing in institutions. 1972.

Harris, C.S. Fact book on aging: a profile of america's older population. Washington: National Council on the Aging, Inc., 1978.

Kalish, R.A. Of children and grandfathers: a speculative essay on dependency. 1967.

Kant, G.S. & Manard, B.B. Aging in america: readings in social gerontology. Alfred Publishing Co., Inc., 1976.

Lefcourt, H.M. Locus of control. New York: John Wiley & Sons, 1976.

Lidz, T. The person. New York: Basic Books, Inc., 1976.

Lieberman, M.A. & Lakin, M. On becoming and institutionalized aged person. Processes of Aging, 1963, 1, 475-503.

Lieberman, M.A., Prock, V.N., & Tobin, S.S. Psychological effects of institutionalization. Journal of Gerontology, 1968, 23, 343-353.

Lieberman, M.A. Institutionalization of the aged: effects on behavior. Journal of Gerontology, 1969, 24, 330-340.

Lienwand, G. Ed. Problems of american society. New York; Pocket Book, 1975.

Mendelson, M.A. Tender loving greed. New York: Vintage Books, 1975.

Minim, E.W. Statistical reasoning in psychology and education. New York: John Wiley & Sons, 1978.

Myers, J.L. Fundamentals of experimental design. Boston: Allyn and Bacon, Inc. 1979.

Nelson, L.M., & Winter, M. Life disruption, independence, satisfaction, and the consideration of moving. The Gerontologist, 1975, April, 160-164.

Newgarten, B.L. Ed. A reader in social psychology. Chicago: University of Chicago Press, 1968.

Publication manual of the american psychological association.  
Washington: American Psychological Association, 1979.

Staff of Research and Education Association. The statistics problem solver. New York: Research and Education Association, 1978.

Suncommitte on Aging. Post-white house conference on aging reports. Washington: U.S. Government Printing Office, 1973.

Tobin. S.S., & Lieberman, M.A. Last home for the aged. San Francisco: Jossey-Boss Publishers, 1976.

Townsend, P. Social and psychological aspects of aging. London: Columbia University Press, 1962.

Warren, H.H. Self-perception of independency among urban elderly. The American Journal of Occupational Therapy, 1974, 6, 329-336.

Williams, R.H. Ed. Processes of aging, volume II. New York: Atherton Press, 1963.

ARCHABEY LIBRARY



3 0764 1002 9951 5