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**A STUDY TO DESCRIBE THE LIFE EVENTS THAT PRECEDE RELOCATION
BY ELDERLY INDIVIDUALS FROM INDEPENDENT TO ASSISTED-
INDEPENDENT LIVING ENVIRONMENTS**

By

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ABSTRACT

A STUDY TO DESCRIBE THE LIFE EVENTS THAT PRECEDE RELOCATION BY ELDERLY INDIVIDUALS FROM INDEPENDENT TO ASSISTED- INDEPENDENT LIVING ENVIRONMENTS

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This survey study described 30 elderly individuals who relocated from independent to four assisted-independent residences in the prior 6 months. Information regarding basic sociodemographics, the nature and frequency of prior life events, and those events perceived and prioritized as motivators to relocation was obtained. Life events related to personal health occurred most frequently, and were often reported as solitary and highly ranked motivators. Events related to loss and family interaction, although less frequent, also ranked highly. Findings support life event information as a valuable guide for assessing current and projected residential needs and determining components related to environmental adequacy. Primary implications for advanced nursing practice involve individual and environmental assessment to inform nursing activities that assist clients to derive residential environments that promote optimal levels of health and life satisfaction. Additional research is needed to generate a comprehensive data base related to the phenomenon of voluntary relocation and associated influential factors.

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CHAPTER I

INTRODUCTION TO THE STUDY

Introduction

Current and projected demographic statistics reveal a striking and historically unique progressive escalation in the number and proportion of older American adults. In 1900, there were approximately three million people over age 65. Today there are approximately 22 million. By 2000, 30 million are projected (Ward, 1978), and by 2020 this group is expected to double today's presence (U.S. Senate, 1984). The proportion of the population over 65 has grown to more than 10% and may eventually reach as high as 15% (Ward, 1978). Additionally, this older population is itself aging. The 75-plus age group is currently the fastest growing segment in the entire American population (U.S. Senate, 1984), and life expectancy continues to lengthen. Given for age 65, average life expectancy increased equally in the period from 1900 to 1960 as it has from 1960 to present (American Association of Retired Persons, 1985). This dramatic increase in the aging population has prompted concerns surrounding society's ability to accurately identify and adequately meet the needs of its burgeoning numbers of elder members.

While it is problematical to generalize about attributes of a significant population group, it is apparent that the incidence of chronic, degenerative, and disabling conditions seems to increase with age (Palmer, 1985a). According to Palmer, the overall cumulative effects of combined morbidities and the weaknesses of age imply that perhaps 30% of the population 65 and older require some assistance with routine activities associated with daily living (p. 2). Several studies have supported this observation. Liu, Manton, and Alliston (1985) referred to five frequently cited surveys used as general estimates of disability of the elderly in the United States conducted from 1964 to 1976. These authors estimated the proportion of elderly people who experience some level of impairment and degree of activity limitations to range from 24% to 69%.

As these studies have indicated, there is a significant subgroup of elderly individuals who could qualify as disabled in some way or degree. However, as Palmer (1985a) pointed out, many of these disabled need supportive kinds of services rather than sophisticated medical technologies: "Indeed, many dependent people need little other than routine types of help with the functions or activities of daily living . . . which they can no longer provide for themselves" (p. 3).

Nursing is consistently oriented and deeply committed to the care and nurturance of individuals, sick and well, individually and in groups (American Nurses' Association, 1980). This aspect of increasing potential for need of functional support in aging is

extremely responsive to the nature and scope of current nursing practice.

Society and the health care professionals dedicated to its well-being are confronted by the challenge of developing mechanisms and alternatives for the care and support of aging individuals who require increased assistance to maintain and promote health through maximizing levels of functional competence and independence. One area of particular interest and concern, and one highly relevant to this goal, is the residential environment of aging individuals, or housing.

Before the 1930s, the only type of housing for the elderly who could not live independently or lodge with family was the institution or nursing home. The 1939 Bureau of the Census estimated 1,200 facilities in the United States. Ensuing growth was fanned by a Social Security provision that encouraged the conversion of private housing into profit-making boarding homes for the elderly. In 1954, there were an estimated 8,000 nursing homes (Pegels, 1980, pp. 13-14). Further change within the scheme of federal health-reimbursement policies enacted in the 1960s continued to promote use and growth in the industry. By 1977, according to the National Center for Health Statistics, there were approximately 19,000 nursing homes with a total capacity of 1.5 million beds (Waldeman, 1985, p. 520). Although the current demand for nursing home care certainly remains high, there is indication that this rate of expansion has stabilized. One major explanation for this stabilization is the increasing prevalence of various kinds of

housing alternatives available to the elderly (Pegels, 1980). This trend, as well, has historical precedent.

In 1963, President Kennedy referred to a substantial minority of elderly people who "while still relatively independent, require modest assistance in one or more aspects of daily living" (Dickman & Dickman, 1978, p. 12). President Kennedy's observation alluded to a social imperative for the creation of housing alternatives that should exist between complete domiciliary independence and institutional care. At the same time, financing programs sponsored by the Federal Department of Housing and Urban Development stimulated a flurry of activity to construct new low-cost group housing for the elderly (Rosenfeld, 1978).

At the 1971 White House Conference on Aging, delegates called for a national statement of goals on the provision of a spectrum of housing alternatives for the elderly. Included were not only long-term care facilities for the ailing elderly, but consideration for a variety of housing alternatives intentioned for the essentially well elderly whose needs span a continuum for diverse styles of assisted-independent living options offering a variety of services (Thomas, 1985).

In 1978, Title IV of the Housing Act created the Congregate Housing Service Program designed to encourage the evolution of this housing continuum for the elderly. Under this act, public housing agencies and borrowers could receive funds to provide meals and other supportive services to eligible project residents. Overall,

the program tied support services to housing in order to (a) guarantee a long-term funding source, (b) provide an incentive for the construction of congregate facilities, and (c) fill a gap in the housing spectrum. Ten million dollars were appropriated in both fiscal years 1979 and 1980 to fund congregate projects (Thomas, 1985, p. 404).

The desirability of creating housing options to fill this gap in the housing continuum between complete domiciliary independence and the institution centers primarily on the need to curtail unnecessary institutionalization. Indeed, estimates of the incidence of needless or inappropriate institutionalization are alarmingly high. According to Pegels (1980), the Senate Special Committee on Aging in 1976 estimated that approximately 24% to 40% of elderly individuals are institutionalized because of the lack of alternative systems of care and support (p. 40). According to Dickman and Dickman (1978), housing experts have estimated that an assisted-independent style of housing could help 2.5 to 3 million older Americans avoid nursing homes and other institutions (p. 12). The Urban Institute (Wax, 1976, p. 38) documented a more conservative figure of 1.1 million older Americans who could avoid institutionalization if appropriate alternatives were available. These are extremely impressive statistics, considering one projection for traditional nursing home occupancy in 1990 is only 1,693,130 by comparison (p. 73). The primary rationale for curtailing needless or inappropriate institutionalization is one of cost.

According to Rosenfeld (1978), "the cost to the Nation for institutional care of our elders is in the billions annually and rising" (p. 108). While there is debate regarding the comparative cost to society for institutionalization versus other care alternatives such as various community programs and in-home services, there is little disagreement that needless or inappropriate institutionalization is unjustifiably costly. According to Pegels (1980), "in terms of equity, it would seem that persons inappropriately placed in nursing facilities are creating an excessive cost burden on the public, thus drawing support away from such care even when it is appropriate" (p. 41).

Institutionalization is psychologically expensive for the individual. This perspective on cost was discussed by Rosenfeld (1978):

Concern has arisen in many quarters that this investment [in institutional care] has not resulted in appreciable improvement in the quality of life for the older dependent. . . . It has merely reinforced the use of an unsatisfactory solution to the many complex problems faced by these individuals: failing physical and mental health, and the absence of an adequate system of social supports. (p. 108)

According to Thomas (1985), housing conditions can have a dramatic effect on an older person's ability to cope with a chronic illness or disability, making the impaired or dependent elderly particularly vulnerable to the environment in which they must live. He summarized: "The most common housing problems experienced by a chronically disabled, elderly person are the result of an inadequate or inappropriate setting" (p. 393).

Have the developments of the last decades then, around the creation of housing alternatives for the elderly, made an appreciable difference? Have they filled any gaps on the housing continuum between complete domiciliary independence and the formal institution? Have they made any difference in cost, either on the level of societal economy or individual life satisfaction? The answer is couched in unqualified uncertainty. The fertile areas for further research around these concerns are indeed extensive in type and degree. The domain of environment and aging has emerged as a recognized subfield within gerontology, with its own cadre of prominent scholars (Rowles & Ohta, 1983). The issues of aging and environment are extensive, complex, interactionary, and extremely responsive to immediately relevant social research.

With the advanced alert provided by demographic projections, the clear necessity is to break out of reactor status and act with foresight to direct change. Currently this enlarging gerontologic domain provides ample research imperatives and opportunities, particularly of an exploratory and descriptive nature. That aging individuals do seek environmental situations that provide some forms of assistance yet preserve and extend a level of functional independence is clear. However, the factors that motivate this search, as yet, require further investigation. As Nelson and Winter (1975) pointed out, if planners expect to adequately meet the housing needs of the aged, they must receive precise information regarding the motivation of older adults to leave their homes and seek other housing alternatives, particularly those that provide

some aspects of assistance and support. It is to this end that this study is directed.

Within this chapter, the background of the study problem is discussed, the purpose and importance of the study are described, and the problem statement with its attendant research questions is introduced. Concepts are defined conceptually and operationally, assumptions are specified, and the limitations of the study are identified.

Background of the Problem

Functional independence is a quality of life that is highly valued by older adults. To remain as independent as possible for as long as possible is often a self-professed high-priority goal of aging individuals. The process of aging, however, undeniably includes an increasing potential for challenges to the maintenance of functional independence. For many older adults, the maintenance of functional independence transcends the management of increasing physical complexities of daily living but may represent an emotional challenge as well. Fear of increasing dependence in aging is common, and its presence often engenders feelings of personal worthlessness and endangers self-esteem (Lissitz, 1970).

Living arrangements often become a major index by which levels of functional independence are appraised by the aging individual and society as well. According to a 1976 housing survey, 71% of all elderly persons own their own homes (U.S. Department of Housing and Urban Development, 1979). While admittedly this arrangement may be

inappropriate for some, it signifies that the vast majority of older adults are able to live independently to some degree and, in all probability, prefer to do so. Incapacitating dependence is relatively rare, reflected in the fact that less than 5% of all older American adults reside in traditional institutional or nursing home settings (U.S. Senate, 1984).

This leaves a significantly large portion of older adults residing somewhere between presumed domiciliary independence and the traditional institution. However, this is a segment of the elderly population that has not been precisely described in research. A national survey in 1976 by the Department of Housing and Urban Development (HUD), touted by HUD as the most complete and detailed housing data available, targeted this group as simply the 28% of elderly households that exist in structures of two or more housing units, without further attempts to qualify or describe these settings (U.S. Department of Housing and Urban Development, 1979).

Thomas (1985) maintained that, if the housing continuum is polarized between the extremes of domiciliary independence and traditional institutionalization, "in the middle of this spectrum lies a gap where the social, personal, and housing needs of the elderly . . . are unmet by any type of institution" (p. 396). Pegels (1980) articulated this gap most clearly: "The single largest factor behind the lack of adequate or appropriate long-term care for a large number of elderly is the general lack of formal alternatives to institutional care" (p. 41). It is this perceived

gap on the housing continuum that has stimulated the recent interest, in both public and private sectors, in the development of assisted-independent styles of housing alternatives for the essentially well elderly.

The largest formal initiative into the creation of assisted-independent living alternatives designed to assist elders to remain in a community milieu is the Congregate Housing Services Program (CHSP) established by Congress in 1978. Currently operating at 61 sites, the CHSP provides nonmedical services, largely consisting of meals, personal service, housekeeping, and transportation, to older adults in federally assisted housing with the goal of preventing or delaying their placement in nursing homes (Subcommittee report, 1987). An independent evaluation mandated by Congress when it created the program yielded impressive results. For every CHSP participant who needed to be institutionalized, nearly two nonparticipants from a carefully matched control group needed institutional care. Even more impressive were the deinstitutionalization effects. Housing managers were six times more likely to admit nursing home patients when CHSP services were available.

Despite these clear indications that provision of select services does, in fact, assist the elderly to establish a desirable level of functional independence, the CHSP is currently meeting strong resistance from HUD. This conflict has its roots in early HUD policy that reflected their desire to avoid developing public housing with an institutional flavor (Gelfand, 1984). According to

Lawton (1976), the HUD rationale favoring policy essentially restricting on-site services had some basis in behavioral theory:

The maintenance of independent function is facilitated by an environment that requires active behavior from its inhabitants, and conversely, the presence of too easily accessible services will erode independence among those who are still relatively competent. (p. 237)

However, in his 1976 study of the relative effect of congregate versus traditional housing on elderly tenants, Lawton's findings suggested that maximum choice should be provided for potential applicants along the continuum between no services and high levels of service, indicating that "when options are many, both personal preference and need have a much greater probability of being fulfilled" (p. 241).

Currently the debate between CHSP and HUD continues, polarized largely by differing opinion on the economic impact of congregate residency. A recent draft of an annual HUD report concluded that CHSP was only minimally effective in preventing unnecessary institutionalization and that the program was three times as costly for the federal government than the institutional care for those requiring it. The report concluded that the CHSP program should be terminated, stating that there is nothing to be gained by keeping 61 grants alive when sufficient funds for institutional care of the supported individuals are available. Congressman Don Bonker (D-WA), Chairman of the Subcommittee on Housing and Consumer Interests of the House Select Committee on Aging, represented his committee in a letter to the Secretary of HUD to express concern about HUD's

attitude toward the CHSP. He maintained that to terminate the CHSP project in favor of institutional solutions is unjustified and insensitive to the needs of the elderly (Subcommittee report, 1987).

While governmental debate and decisions are in progress regarding optimal directions for evolving diverse styles of living arrangements for the elderly, the private sector, largely unencumbered by the arduous process of deriving funding solely by the government, has begun to turn its entrepreneurial hand at evolving alternative styles of assisted-independent living. The array of assisted-independent living options emanating from the private sector is indeed expansive and diverse. Palmer (1985b) referred to the overarching concept of "domiciliary care" as an alternative to traditional institutional settings (p. 437). However, he related that this term represents wide divergences in application and spawns confusing terminology: "In some instances, there is even confusion as to whether it is the nature of services provided, nature of the setting, . . . [or] . . . number of clients per setting which is the criterion of identification" (p. 437). He alluded to differences in terminology among providers, users, policymakers, and analysts, as well as definition variance among the states and in some cases within states. It is not surprising, then, despite emerging support for these diverse types of assisted-independent living arrangements and their increasing prevalence in the spectrum of care, that hard data, usually dependent on precise

description and definition, are very scanty. Since no national surveys exist, it is necessary to report educated estimates.

A survey of eight states in 1979 (Mellody & White, 1979) estimated that nation-wide, 600,000 to 800,000 people were housed in domiciliary care facilities. However, this estimate does not reflect potential need for additional housing of a similar nature. According to housing experts at the University of Illinois, the State of Illinois immediately requires an additional 11,400 units of congregate housing to meet the present needs of their population over the age of 70. They estimated a 34% projected growth rate for congregate residence opportunities necessary to keep pace with need into the year 2000 (Subsidized IL, 1987). If these numbers are extrapolated to the nation, they imply a need for many more spaces than are currently available in congregate housing units. This overall estimate of national capture of elderly residents in some form of assisted-independent living environments, while admittedly difficult to meaningfully qualify further as to type, is clearly extensive and shows every indication of escalating.

The ramifications of these projections indicate present as well as evolving necessity to accurately gauge and meet the housing needs of the older American adult population. Understandably there is a call for increased attention to be focused on problems of definition: "Clear description, accurate assembly of data, and policy clarity must all be provided" (Palmer, 1985b, p. 460).

Championing assisted-independent housing alternatives for the elderly due to their apparent suitability and ideological appeal is

one thing; empirically investigating the phenomenon is quite another. What of the older adults' perceptions of their needs and requirements related to housing alternatives and care choices? Does congregate living or assisted-independent housing truly address the older adults' preferential style of living? Several authors believe so, although, again, the terms used to describe these options vary. Body, Kleban, and Liebowitz (1975) commented that older adults who choose intermediate housing, with services available as necessary, show improved overall satisfaction with living arrangements and increased enjoyment of life and social contacts. Lanahan (1981) referred to retirement centers and maintained that these facilities enhance the lives of the elderly, "allowing them to maintain their dignity and freedom to operate as individuals" (p. 108), and referred to resultant high levels of occupancy and a strong demand for new facilities. Teaff, Lawton, Nahemow, and Carlson (1978), in a cross-sectional survey of a national sample of elderly public housing residents, referred to their apparent increased morale and higher housing satisfaction.

In conclusion, what is known about alternative assisted-independent living arrangements for the older American adult population is that both public and private sectors are currently demonstrating sensitivity to a perceived need for growth and expansion in this area, although qualifying statistical data remain somewhat ambiguous. Also known is that the older adult population

itself seems to respond favorably to various types of assisted-independent living.

What is not known is precisely why a significant portion of older adults seem to gravitate toward assisted-independent living alternatives. Reasonable conjecture might suggest the reader return to the opening statement of this discussion--that functional independence is a quality of life that is highly valued by older adults and is evidenced by their willingness to embrace a style of living that preserves, enhances, or extends this functional independence.

This study was predicated on the expectation that certain events may transpire in an older individual's life that may be perceived and serve as potential motivators precipitating relocation from independent living into some form of assisted-independent living. The paucity of empirical descriptive data concerning self-perceived stimuli that precipitate this relocation underscores this investigational need most graphically.

Purpose of the Study

Although there is significant evidence to indicate that alternatives in assisted-independent living are becoming increasingly popular and preferred by a specific group of relocating older adults, there has been minimal attention in the gerontologic literature regarding the isolation and description of specific individual motivators that contribute to this trend.

The general purpose of this research is to describe the antecedent experiences or life events that have transpired in the

lives of a population of older adults who have moved from an independent into an assisted-independent living environment, and to tentatively explore the relationship between these life events and the relocation outcome.

The specific purposes of this study are to systematically describe the life events of older adults that preceded relocation from independent into assisted-independent living environments and, further, to identify and describe those specific life events that were self-perceived as motivators to the relocation.

Problem Statement

The problem under study is to identify and describe the critical life events that preceded relocation by elderly individuals from independent living into assisted-independent living environments. The research questions used to address the problem statement are:

1. What are the descriptive characteristics of the population which relocated from independent living into assisted-independent living environments?
2. What life events transpired in the year before the relocation?
3. What life events transpired in the year before relocation that were self-perceived and appraised as potential motivators to the relocation?

Importance of the Study

The description of conditions and events that precede relocation from independent to assisted-independent living environments, particularly those that older adults perceive as specific motivators, is an important area for nursing investigation.

In the study problem, three basic factors emerged that underscored the study's relevance to contemporary nursing. They are individualism, holism, and adaptation. In terms of individualism, in theory and in practice, nursing philosophy continually emphasizes the absolute necessity of addressing the needs of the recipients of nursing care in an individualistic manner. Indeed, the ultimate success of nursing intervention is often predicated on the recognition and incorporation of individual differences into a mutually negotiated plan of care. In this study, the emphasis on individual differences is exemplified by consideration for the individually unique processes of perception and appraisal of life events, particularly as potential motivators to relocation.

In terms of holism, contemporary nursing philosophy embraces the tenet that individuals are complex beings in constant interaction with their environment, and that this interaction involves the full press and influence of biologic, psychologic, and sociologic factors. In this study, the incorporation of the aspect of self-perception as it pertains to life events leaves their exact nature open to any domain, again, particularly for life events as potential motivators to relocation.

In terms of adaptation, contemporary nursing philosophy often expressed in nursing theory frequently cites adaptation of the individual as nursing's ultimate goal. This study used a stress paradigm that acknowledges human behavior as an adaptational process as its organizing framework. This adaptational perspective is particularly advantageous in that the process approach facilitates therapeutic nursing intervention at various points in time. In terms of relevance to nursing intervention, this study may serve to inform intervention strategies with two basic groups of individuals. They are those older adults who are living independently and those who have relocated into assisted-independent living environments.

In terms of older adults who are living independently, the generation of a constellation of client-perceived motivators thought to motivate relocation from independent into assisted-independent living environments could more completely inform nursing assessment for phenomena thought to predispose to this outcome. Recognition of these phenomena could basically generate awareness for the prospective need of individuals for relocation into a more sheltered environment in the future. This advanced alert to potential predisposers could facilitate avoidance of the frustration and resultant ravages to self-esteem that aging individuals experience when the demands of their living environment exceed their abilities to meet them.

Confronted by the already relocated individual, awareness of the potential motivators that have contributed to this outcome can

alert nurses to specific tasks and areas that have proved problematical, thereby promoting intervention in a manner most congruent with the client's needs and facilitating assistance toward a more comprehensive and successful adjustment within the new environment.

Again, nursing's individualistic and holistic approach to the health care needs and adaptational requirements of the recipients of care renders the findings of this study of life events and their potential motivating role in relocation open to various potential interventions. The specific implications for nursing prompted by the results of this study will be thoroughly explored in Chapter VI.

Due to the relative recency of evolving assisted-independent living alternatives for the older adult, the significance and impact of this trend remains largely unexplored in the basic gerontologic and nursing literature. While assisted-independent living is seemingly increasing in popularity with social planners, governmental policymakers, private entrepreneurs, and relocating individuals themselves, and apparently resonates with the basic ideal of gerontologic philosophy of preserving and extending functional independence, it has, as yet, received minimal empirical investigation. Indeed, current research around the concept of relocation itself is in early stages, focusing primarily on movement around more traditional institutional settings and using outcome measures as basic as frank morbidity and mortality.

This study is intended to contribute to the growing body of literature and early research around a quickly evolving gerontologic environmental trend, to underscore the importance of guiding change through deliberate investigation, and potentially to serve as stimulation for further study and research.

Conceptual and Operational Definitions

The major concepts contained within the study problem are: life events, relocation, independent living, and assisted-independent living.

Life Events

Life events are conceptually defined as those events that occur over a relatively discrete period of time that disturb an individual's homeostasis and create a demand for change in that individual's life (Chiriboga, 1982, 1984). They are identifiable by the individual, who can generally fix their onset in time. To further clarify this central concept of life events, a conceptual framework to organize the study problem is presented in Chapter II. This conceptual framework consists of a stress paradigm originally proposed by House and Robbins (1983). In this paradigm, life events are conceptually defined as stressors. Additionally, the paradigm specifies that life events must be specifically perceived and appraised as stressors for ensuing related response to occur and outcome to transpire.

In this study, the basic concept of life events has two aspects. First is the discrimination between events that have and

have not occurred, and second is the perception and appraisal of events that have occurred as stressors, particularly as potential motivators to the relocation process.

To further increase conceptual clarity and to eventually operationalize the concept of life events, it is necessary to refine this global conceptual definition by discussing the basic domain of life events and their specific categorization. The life event literature has widely accepted the primary domain of potentially stressful life events as "life changes" (Dohrenwend & Dohrenwend, 1974, p. 319). Conceptually defining life events in this broad primary domain of "life changes" is most congruent with the comprehensive quality engendered by the exploratory goals of this descriptive study. Dohrenwend, Krasnoff, Askenasy, and Dohrenwend (1978) concluded,

Objective occurrences [of life events] of sufficient magnitude to bring about change in the usual activities of most individuals who experience them . . . seems to us to be as close as we can come to a workable definition of what is to be sampled in creating a list of life events in the context of studies of life stress. (p. 207)

The concept of life events is further refined by categorization of specific events. Relevant life event categories given in the literature have been organized in several ways. Two basic categories of life events are often initially identified. They are: (a) life events that any individual may experience as part of the usual life course, or the universals of human experience; and (b) life events that vary with social and cultural settings, or those

not generally experienced by individuals as part of the usual life course (Dohrenwend et al., 1978; Hultsch & Plemons, 1979).

Since empirical investigations in the area of life events have dealt almost exclusively with events in the first basic category, this study deals exclusively with this category, or the universals of human experience. Life events in this basic category have also been variously described as developmental crises or normative transitions (House & Robbins, 1983). The specific events that are included in this category are varied, and their inclusion is not always based on empirical investigation. They are often highly subjectively drawn from the experience of individual researchers. Generally, specific life events are categorized in relatively common areas such as events related to health; love and marital relations; family, personal, and social activities; work and finance; school; home or residence; and legal issues (Rahe, 1975; Skinner & Lei, 1980; Tausig, 1982).

Regarding categorization of life events and eventual operational decisions regarding inclusion or elimination of specific life events, Dohrenwend et al. (1978) suggested,

In order to permit more general and more interesting conclusions . . . a sample of life events that may be specific to a particular sociocultural setting should be drawn from the experience of the general population of persons living in the appropriate communities as well as from other groups of special interest to the investigator. (p. 208)

Given these general guidelines from the literature, categories of specific life events to be included in this study were developed. The categories included are those given in the life event literature

as instrumental in the comprehensive measurement of the primary domain of life events, or life changes. Only one existent life events instrument was found that specifically related to a gerontologic population, the Geriatric Social Readjustment Rating Scale (GSRRS) (Armster & Krauss, 1974). Because this instrument did not appear to include content sufficiently comprehensive and specific to an aging population, elements from a well-recognized and accepted list of tasks in human development of the 60-plus age group were incorporated to increase appropriateness and congruence of specific categories of events for an aging population. Havighurst (cited in Huyck & Hoyer, 1982, p. 219) listed six tasks for later maturity (see Figure 1.1).

**Developmental Tasks in Human Development--
for Later Maturity (60+)**

1. Adjusting to decreasing physical strength and health
2. Adjusting to retirement and reduced income
3. Adjusting to death of one's spouse
4. Establishing an explicit affiliation with one's age group
5. Adopting and adapting social roles in a flexible way
6. Establishing satisfactory physical living arrangements

Figure 1.1: Six tasks for later maturity.

Elements of these tasks for later maturity were incorporated into the specific categories of life events for use in this study. Figure 1.2 presents these final categories. It is believed that these categories, grounded in the life event literature, are relevant classifications of specific life events that can be

anticipated in an older age group. They provided the conceptual boundaries and guidelines for the development of the specific content of the universe of life events that were sampled in congruence with the population and the purpose of this study.

The universals of human experience: Developmental events or normative transitions

- A. Events related to personal biological or physiological changes associated with the aging process
 - 1. Physical health or capabilities
 - 2. Mental health or capabilities
 - 3. Functional health or capabilities
- B. Events related to physical, mental, and functional health or capabilities of significant others
- C. Events related to loss by death associated with the aging process
 - 1. Widowhood
 - 2. Significant others
- D. Events related to changes in roles, relationships, and activities associated with the aging process
 - 1. Family context
 - 2. Social context
 - a. Occupational
 - (1) Retirement
 - (2) Financial
 - b. Environmental
 - (1) Residential
 - (2) Crime/legal

Figure 1.2: Categories of life events.

Life events were operationalized by Part I of the Gerontologic Life Events Checklist (GLEC), a newly devised instrument that isolates life events that have occurred in the year before

relocation. Life events as potential motivators to relocation were operationalized by Part II of the GLEC, which requested subjects to select and describe those life events they perceived to be the most important motivators to the relocation experience and to rate them as to perceived degree of influence.

Relocation

Relocation was conceptually defined as a discrete behavioral event in time that refers to the act of relocating, to locate again, or to change one living locale for another (Webster, 1978). Relocation was operationalized by the fact that subjects had relocated to an assisted-independent type of living environment within the 6 months preceding this study.

Independent Living

Independent living was conceptually defined as a residential environment that does not inherently contain any formal support services or facilities available to residents as part of the housing contract. The operational definition of independent living was determined by a negative response to Item 3 in the eligibility section (Part I) of the Sociodemographic Descriptive Questionnaire (SDDQ): "Did your prior permanent residence offer any formal supportive services or contain any facilities designed to assist residents in their normal activities of daily living as part of the housing contract?"

Assisted-Independent Living

Assisted-independent living was conceptually defined as an organized residential environment that philosophically purports to encourage and promote maximum functional independence for residents and has incorporated one or more formal support services or facilities to address and meet this goal. Assisted-independent living was operationalized by selecting eligible subjects from organized residential living environments as conceptually defined above.

Descriptive Characteristics of the Sample

Descriptive characteristics of the sample were conceptually defined in terms of common sociodemographic variables. These variables were operationalized by the Sociodemographic Descriptive Questionnaire (SDDQ). They are age, gender, marital status, ethnicity, education, religion, employment status, and income. Several other descriptive characteristics of the sample are believed to be important and potentially pertinent to the purposes of this study. Accordingly, the SDDQ also elicited information regarding the type and specific nature of prior in-home assistance, health status, family contact, and current functional abilities in activities of daily living.

Assumptions

In this study, the investigator made the following assumptions:

1. It was assumed that relocation is an event that is preceded by precipitating factors.

2. It was assumed that certain life events represent stressors that can motivate behavior and act as precipitating factors to relocation.

3. It was assumed that individuals who have undergone relocation within the past 6 months can recall specific life events that occurred in the year before the move in the presence of a skilled interviewer applying sensitive instruments to elicit these data.

4. It was assumed that relocated individuals can relate the significance of life events as motivators to relocation in the presence of a skilled interviewer applying sensitive instruments to elicit these data.

Limitations of the Study

In this study, the investigator acknowledges the following limitations:

1. The assisted-independent living facilities in this study participated voluntarily. Accordingly, these facilities may be different from nonparticipating facilities, and findings may not be generalizable to the entire spectrum of facilities offering an assisted-independent type of living environment.

2. The study sample was voluntary, and those subjects who agreed to participate may have been different from those who

refused. Therefore, findings may not be representative of the total population of older adult relocators.

3. Use of one interviewer for data collection included the possibility of injecting systematic interviewer bias.

4. The study's selected time frame of 1 year before relocation in which to target the occurrence of precipitating life events may have missed the incidence of other potentially motivating life events.

5. The study did not formally address phenomena other than recent life events that could potentially motivate relocation.

6. In this study, no attempt was made to control for differential levels of life satisfaction following relocation and their potential effects on reflective thought and memory.

Overview

This research study is presented in six chapters. In Chapter I, the study was introduced, and the background of the study problem, the purpose of the study, the statement of the problem, the importance of the study, with conceptual and operational definitions of major variables, the assumptions, and limitations of the study were presented.

In Chapter II, the conceptual framework for organizing the study problem is presented and discussed. The pertinent literature and research in the problem area are presented and discussed in Chapter III. Chapter IV contains a description of the research methods and procedures for data collection. In Chapter V, data are

presented, analyzed, and discussed. In Chapter VI, conclusions are identified and recommendations for nursing practice and future research are discussed.

CHAPTER II

CONCEPTUAL FRAMEWORK

Introduction

The conceptual framework used for this study was based on a recognized paradigm in stress research developed by Levine and Scotch (1970) and McGrath (1970) and interpreted by House and Robbins (1983). The rationale for selecting a stress-related conceptual framework with which to organize the study problem was primarily based on the supposition that relocation itself, as well as the conditions and events that precede it, may be interpreted as potentially stressful. A brief overview of stress theory and its evolution follows. Several major stress models are presented, and the choice of House and Robbins's stress paradigm as the organizing conceptual framework is discussed.

The chapter continues with a general presentation and depiction of the stress paradigm (House & Robbins, 1983) and discussion of its basic interactional concepts. These basic concepts are identified as: adaptation, age and life course position, and conditioning variables. Following is a discussion of the paradigm's specific constructs around the stress experience as they relate to the above concepts and to the study problem. These constructs are identified as: social conditions conducive to stress, perceived stress,

responses to stress, and outcomes of the stress experience. The chapter concludes with a conceptual reorganization of the stress paradigm, with application of its basic interactional concepts and specific constructs, for use as the conceptual framework in this study.

Stress Theory--Overview

After seminal work by Cannon (1929), who considered stress a disturbance of homeostasis and invigorated research into the physiology of emotion, early stress theorists sought to describe the stress experience. Based on observations of the human condition, they linked certain stressors, identified as the stimulus component, to certain reactions, identified as the response component. Early work remained strongly physiologically oriented, with both stimulus and response components often defined in terms of measurable physical variables.

A model of stress developed by Wolff and associates (1950, 1953) exemplified this approach. This model, known by its principal concept of the "protective reaction pattern," states that when the body is confronted with insults to its physical integrity, a complex reaction occurs aimed at sealing off and ridding the body of this threat. Selye's (1956) biochemical model of stress was also concerned with an analysis of stress at the physiological and biochemical levels of human function. Selye defined stress as "a state manifested by a specific syndrome which consists of all of the nonspecifically induced changes within a biologic system" (p. 54).

These early physiologically related models translated well into the stimulus/response orientation of traditional psychology. Bridging the gap from physiologic into psychologic realms, the psychosomatic model of stress (Alexander, 1950; Dunbar, 1947; Grinker & Spiegel, 1945) is based on the premise that the tensions and strains that occur in one system of the body often have pathological consequences for other body systems. Consideration is given to both psychological and physiological domains as potential sources of stress, as well as for ensuing stress-related responses. The mechanistic model of stress (cited in Scott & Howard, 1970) also addresses this relationship between physiologic and psychic processes. In this model, stress is viewed as the internal response of the organism to an external load placed upon it by some pathogenic agent, stressor, or life crisis. Stress, in turn, produces distinct pathological changes and certain typical disorders of adaptation.

As investigators continued to explore the stress experience, particularly in broader psychosocial realms, they realized that, in the full context of human behavior, stressors and the responses related to them often elude general applicability. Individual differences, in terms of internal psychological characteristics and external situational or environmental factors, render the concept of stress elusive to universal theoretical definition and make the stress experience a challenge to explore empirically. This complexity has directed attention away from the simplistic

stimulus/response stress models toward ones that are more relational or transactional in nature.

Mechanic (1962) formulated a model of stress to interpret problems concerned with the social psychology of adaptation. He defined stress as "the discomforting responses of persons in particular situations" (p. 7). In this view, whether or not a situation, event, or happening is construed by the individual as stressful and produces stress-related responses depends on four factors: the ability and capacity of a person, skills and limitations produced by group practices and traditions, the means provided to individuals by the social environment, and the norms that define where and how an individual may use these means.

Dohrenwend (1961) grouped these kinds of factors into a category that plays an instrumental role in his stress model and the models of others. They are collectively known as mediating factors. According to Palmore, Cleveland, Nowlin, Ramm, and Siegler (1979), "various models have in common an emphasis on the multiple determinants of adaptation to stress and the importance of physical, psychological, and social resources as mediating variables which affect the level of adaptation to the stressful event" (p. 841). In terms of the ensuing complexity of this approach, Eisdorfer and Wilkie (1977) alluded to a temporal factor as well: "There is emerging an increasing awareness that the stress reaction involves the physiological, psychological, and in many instances the social systems simultaneously" (p. 252).

This concept of mediating factors in the stress experience has been systematically expanded. In terms of the nature of stressors, Lazarus and Folkman (1984) maintained that the process of appraisal is pivotal. They alluded to initial appraisal of stressors as primary appraisal. A secondary type of appraisal is given as the process by which individuals assess their own capabilities and skills required to meet the demands imposed by the stressor. Pearlin, Menaghan, Lieberman, and Mullan (1981) summarized the concept and role of mediating factors in the stress experience:

It is now consensually accepted that the intensity of the stress that people exhibit cannot be adequately predicted solely from the intensity of its sources, whether the sources be life events, chronic role strains, the diminishment of self, or all three. Instead, people typically confront stress-provoking conditions with a variety of behaviors, perceptions, and cognitions that are often capable of altering the difficult conditions or of mediating their impact. (p. 340)

In a summary critique, Scott and Howard (1970) identified six basic limitations of existing major models of stress (p. 269):

1. Models use inconsistent referents to the stress experience; they variously identify stress as an attribute of the precipitating stimuli, as individuals' response to a situation, as a quality of the situation that is independent of individuals' reaction to it, as a quality of the stimulus as well as individuals' response to it, and as an intervening state that is the internal reaction to stressors.

2. Models are often field-specific and cannot be extended to all levels of human functioning without seriously distorting the phenomena at each level.

3. Some models are not comprehensive and ignore nontraumatic but wearing events that produce psychological and physiological stress responses similar to those produced by traumatic events.

4. Some models are incomplete and do not include critical factors that determine the nature of stress responses.

5. Many models contain unwarranted assumptions as to the nature of traumatic stimuli and the likely responses of individuals to them.

6. Some models do not adequately explain the data upon which they are presumably based.

Based on these limitations, Scott and Howard (1970) went on to give the basic requirements of a satisfactory model of the stress experience (p. 269):

1. The referents of stress should be clearly defined, and formulated so as to distinguish between stress and related phenomena in a way that is both conceptually clear and empirically feasible.

2. The model should be capable of interpreting phenomena in a variety of environmental fields without unduly distorting the nature of any individual field.

3. The model must be able to account for both traumatic and nontraumatic events, while at the same time differentiating between degrees of wear and tear that may result from nontraumatic stimuli and situations.

4. An acceptable stress model must be capable of satisfactorily explaining the findings of all major relevant research.

5. A stress model should be able to suggest new directions for research and especially research of a nonobvious nature.

6. The model must be as complete as possible, taking into account the major factors that determine whether or not a given stimulus leads to the experience of stress.

House and Robbins's Stress Paradigm

In terms of these requirements, the stress paradigm proposed by House and Robbins (1983) appears satisfactory, particularly in light of the scope and purposes of this study. According to House and Robbins, the term "stress" applies to a general area of research rather than to a clearly defined scientific concept. While this definitional statement may questionably meet the first requirement of a satisfactory stress model, this view has certainly been shared by many contemporary researchers. Elliot and Eisdorfer (1982) stated, "After 35 years, no one has formulated a definition of stress that satisfies even a majority of stress researchers" (p. 11).

Lazarus and Folkman (1984) maintained that stress should not be viewed as a variable, but rather a rubric consisting of many variables and processes, and advocated its usage as an organizing concept for understanding a wide range of phenomena of great importance in human adaptation. They advised:

It is incumbent upon those who use this approach . . . to adopt a systematic theoretical framework for examining the concept at multiple levels of analysis and to specify antecedents, processes, and outcomes that are relevant to stress phenomena and the overarching concept of stress. (p. 12)

While thus leaving open the exact definition of stress may be criticized as conceptually ambiguous, it affords a less restrictive interpretation of data and offers the empirical latitude required by the descriptive nature of this study.

A major strength of the House and Robbins stress paradigm resides with its general orientation to adaptation. The entire stress experience is couched in an adaptational framework that can move an individual forward into new and heightened capabilities. Also, the process aspect of the paradigm allows outcomes to feed back and recycle.

The paradigm is comprehensive in that it acknowledges phenomena in a variety of environmental fields or the basic bio-psycho-social domains. By accentuating the individual's perception and appraisal of stress, no potential sources of stress are ruled out.

By considering major factors that mediate the stress experience, such as age and life course position and individual or situational conditioning variables, the paradigm is complete.

Stress Paradigm: Basic Concepts

The basic concepts of House and Robbins's (1983) stress paradigm are adaptation, age and life course position, and conditioning variables. For the following discussion of these basic interactional concepts, and for the ensuing discussion of its specific constructs, refer to Figure 2.1.

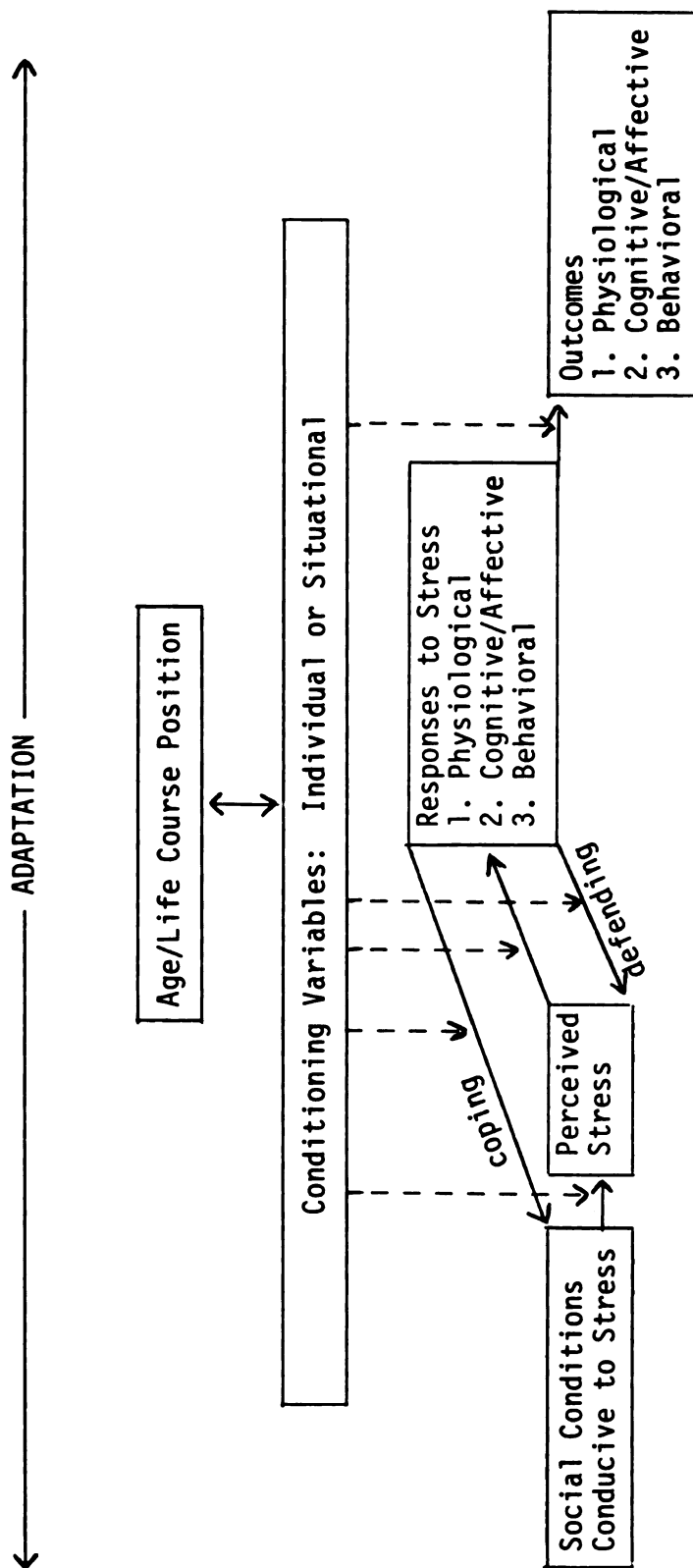


Figure 2.1: House and Robbins's (1938) stress paradigm. (Note: Solid arrows between boxes indicate presumed causal relationships among variables. Dotted arrows from the box labeled "conditioning variables" intersect solid arrows, indicating an interaction between the conditioning variables and the variables in the box at the beginning of the solid arrow in predicting variables in the box at the head of the solid arrow.)

Adaptation

The stress paradigm conceptualized by House and Robbins (1983) is interpreted to represent an adaptational process over time. This overarching concept of adaptation is conceived as a normative process of adjustment and accommodation that an individual undergoes in response to the stresses of living. In this view, as Lazarus and Folkman (1984) clearly indicate, stress is not inherently maladaptive or even necessarily deleterious. Indeed, the existence of stress and the presence of specific stressors can initiate human responses that strengthen adaptational capabilities leading to the development of new adaptational resources and growth.

Age and Life Course Position

Age and life course position is the second basic concept represented in the stress paradigm. An individual's chronological age and resultant position on the life course continuum is interactive with the paradigm's other basic constructs of adaptation and conditioning variables, as well as an exogenous interacter with all of the paradigm's specific constructs. That is, age and life course position may be related to social conditions conducive to stress, perceived stress, responses to stress, and outcomes related to the stress experience.

Conditioning Variables

The last basic concept contained within the stress paradigm, and potentially the most complex, is its acknowledgment of conditioning variables. Conditioning variables are a constellation

of highly individualized factors that greatly influence the stress experience. They emanate from past experience, are operant in the present, and significantly influence transactions in the future. Conditioning variables essentially represent experience, that cumulative body of prior complex transactions that individuals have conducted with their environment. Experience, then, "conditions" responses. It influences present modes of thinking, doing, and being, and becomes one of the most important determinants of future transactions and their outcomes.

Since experience is accumulated through time, conditioning variables are conceptually related to an individual's age or position in the life course. Conditioning variables may indeed represent past experiential events, a concept particularly pertinent to older adults, who accumulate an ever-escalating amount of experience and undergo highly potent developmental marker events, unique normative transitions, and various age/health-related experiences. In this paradigm, however, these experiences or events are broadly categorized and defined as conditioning variables. Conditioning variables emanate from the past and mediate the effect of current experience or events. Essentially, the meaning and effect of past experience is expressed in the paradigm through the presence of conditioning variables on an individual's experience of events and transactions in the present.

Conditioning variables are further defined as basically physiological, psychological, or sociological in origin and nature.

In terms of their relationship to aging, these basic domains are thought to correlate differently. For example, basic psychological attributes are believed to remain relatively stable over time, while physiological capacities and sociological characteristics are thought to be particularly sensitive to the aging process.

Physiological conditioning variables represent previous experiences at various points along the wellness-to-illness continuum and are thought to correlate highly with advancing age in number, effect, and sequelae. Psychological conditioning variables represent previous experiences that influence personality, affect, intellect, and cognition--traits thought to remain relatively stable over time. Sociological conditioning variables represent previous experiences in the social environment that affect social identity, roles, and relationships and are thought to formulate important but highly variable correlations with age.

While these domains and their corresponding conditioning variables are individually presented and defined, they are, however, seldom discrete in reality and are most likely to be dynamically interactive, both positively and negatively.

In summary, then, the stress paradigm provides a conceptual framework that theoretically describes the stress experience as a potentially adaptational process over time, strongly influenced by age and life course position, as well as by individual conditioning variables, thereby facilitating recognition and interpretation of ultimate response and outcome in a holistic and individually unique manner.

Stress Paradigm: Specific Constructs

The stress paradigm graphically presents the stress experience as including the following constructs: social conditions conducive to stress, perceived stress, responses to stress, and outcomes of the stress experience.

"Social conditions conducive to stress" are those conditions emanating from an individual's environment that contain the potential to produce stress. According to House and Robbins (1983), any social or environmental condition can produce stress.

"Perceived stress" represents an individual's perceptual reaction to a social or an environmental condition thought to be "taxing or exceeding . . . resources and endangering . . . well-being" (Lazarus & Folkman, 1984, p. 21). Whether or not a social condition produces the perception of stress is largely determined and mediated by the effect of age and life course position and by the presence of individual conditioning variables, as discussed in the preceding section.

"Responses to stress" represent an individual's actual reaction to perceived stress and may occur in any domain: physiological, cognitive/affective, and/or behavioral. Again, the character of response is a function of the interaction between perceived stress, age and life course position, and individual conditioning variables. House and Robbins (1983) gave, at this point in their paradigm, three basic response alternatives: coping responses, defending responses, or new responses progressing toward actual outcome.

A coping response is depicted as retrospective in the adaptational process, reflecting back on the stress-conducive social condition, presumably to effect change within it in order to ameliorate or eradicate its stress-provoking impact. These coping responses are focused on and seek to stimulate change in the external milieu.

The defending response is also depicted as retrospective in the adaptational process, directed back toward the perception of stress, presumably allowing the individual to reconceptualize and thereby render a perceived stressor as less stress provoking. These defending responses are extremely internal in orientation and seek to provoke change more within the individual than in the environment. Again, both of these response alternatives, coping and defending, are mediated by individual conditioning variables.

The third response alternative to perceived stress is depicted as moving an individual forward through the adaptational process and occurs when the response to stress culminates in new "outcome," the final construct in the stress experience, again, in any domain and mediated by individual conditioning variables.

The ultimate significance of this aspect of the stress paradigm is its repetitive emphasis that the entire stress experience, from potentially originating conditions through actual outcome, is mediated by age and life course position and individual conditioning variables.

Stress Paradigm: Application and Reconceptualization

The stress paradigm offered by House and Robbins (1983) attempts to provide a perspective from which to organize and analyze multiple complex behaviors. Since the intention of this study was to capture one experience, relocation, and to describe the life events that precede or potentially contribute to it, some conceptual refinement and reorganization of the paradigm was necessary (see Figure 2.2).

Basic Concepts: Application

The major basic interactional concepts of the House and Robbins (1983) stress paradigm are given as adaptation, age and life course position, and conditioning variables.

In terms of adaptation, this study purports to describe specific life events that precede and potentially motivate a specific behavioral outcome. As such these life events can be interpreted as potential stressors. The behavioral response of outcome or relocation from independent living into an assisted-independent living environment can be interpreted as a potentially adaptational response. Adaptation as defined by Roy and Roberts (1981) is "the person's response to the environment which promotes the general goals of the person" (p. 53). For a study problem that purports to explore a potentially adaptational outcome, the recognition and use of the overarching concept of adaptation in its organizing conceptual framework is essential.

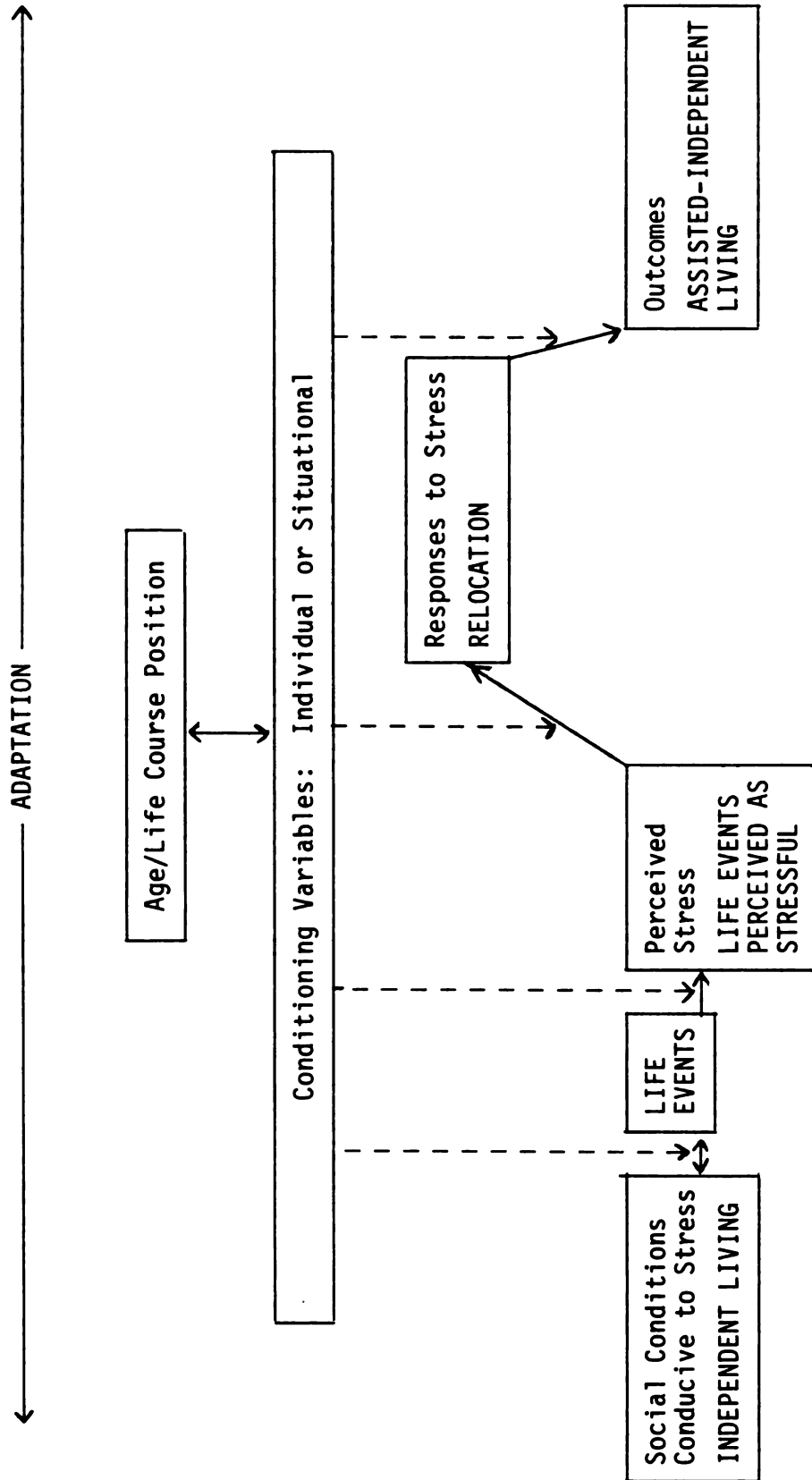


Figure 2.2: Conceptual framework based on the House and Robbins (1983) stress paradigm.

The second major basic concept of the stress paradigm, age and life course position, has particular relevance to the study problem. The stress paradigm's sensitivity to the importance and effect of age and life course position is particularly germane since the paradigm is intended to organize a study problem that distinctly involves a specific older age group (age 55 or older and living independently), purports to describe phenomena that are uniquely encountered by this group (life events), and may relate to a specific behavioral outcome (relocation into assisted-independent living).

The stress paradigm's last major basic concept consists of conditioning variables. It is beyond the scope and outside the intention of this study to empirically account for the presence and effects of specific individual conditioning variables in anything other than a most rudimentary fashion. Yet it is imperative to acknowledge their fundamental importance and to underscore their significance to the entire conceptual scheme. Indeed, incomplete consideration of individual differences, particularly in the areas of perception and appraisal of stress, has contributed to confounding results in research and remains an area of significant methodological contention and criticism. In this descriptive study, however, individual conditioning variables, while thus acknowledged, will remain largely obscure, represented by descriptive sociodemographic data alone.

Specific Constructs: Reconceptualization

The specific constructs of the House and Robbins (1983) stress paradigm that comprise the overall stress experience are given as social conditions conducive to stress, perceived stress, responses to stress, and outcomes of the stress experience.

In the originating paradigm, the dynamic circumstance that precedes individuals' actual response to stress is "social conditions conducive to stress." In applying the paradigm to the study problem, the construct of conditions conducive to stress is pared to one condition thought to potentially predispose to stress, particularly in the older age group, and that is the specific condition of independent living.

The reconceptualization of the paradigm for application to the study problem places another variable in the stress experience between the paradigm's original constructs of "social conditions conducive to stress" and "perceived stress," specifically that of life events. The interjection of this variable is believed to be compatible with the original paradigm and simply serves to more closely scrutinize and refine the logical progression between conditions conducive to stress and the actual perception of stress. Indeed, House and Robbins (1983) referred specifically to events that occur at this juncture as "developmental crises . . . and . . . biological or physiological changes associated with aging" (p. 178).

The paradigm's original construct of "perceived stress" was reconceptualized and refined as specific life events self-perceived as potential motivators to the act of relocation.

The paradigm's original construct of "response to stress" was pared to one response for the purposes of this study--specifically, that of the act of actual relocation.

In terms of the paradigm's original construct of "outcome," reconceptualization for application to the study problem consisted of defining the outcome of relocation as simply the fact that subjects were currently residing in an assisted-independent living environment. Since this study was primarily concerned with the description of events that preceded the act of relocation, no attempt was made to empirically evaluate the effect of this outcome.

The paradigm's basic concepts of age and life course position and conditioning variables remained intact in reconceptualization as a complex of interacting mediators between each construct in the stress experience. As alluded to previously, however, these concepts are represented in this study largely by the presentation of common descriptive sociodemographic data only.

Summary

The conceptual framework used in this study was based on a stress paradigm set forth by House and Robbins (1983). The major concepts of this paradigm have been defined, as well as its specific constructs, relative to the stress experience. The relevance of the overall stress paradigm in terms of its relationship to the study problem has been discussed. The application and reconceptualization of the stress paradigm to the study problem have been presented.

In the next chapter, a scholarly review and discussion of the literature regarding the major variables of this study are presented.

CHAPTER III

REVIEW OF LITERATURE

Introduction

The purpose of this chapter is to present a scholarly review of the literature regarding the major variables in this study. The basic areas of review are (a) life events; (b) living environments of older adults, specifically the assisted-independent type, in terms of preference and satisfaction; and (c) life events as antecedents to environmental change or relocation. Included is discussion of the literature in general as well as the content, limitations, and conclusions of specific studies, with consideration for relevance to the study at hand.

Life Events--Introduction

The target population for this study was older adults who had recently undergone relocation from independent to assisted-independent living environments. Motivators for undertaking relocation are potentially highly complex and extremely diverse in nature. In this study, potential motivators to relocation were conceptualized as prior life events. Additionally, the role of life events as potential motivators to relocation was couched in a stress/adaptation framework.

The literature review regarding life events follows. It is organized in four sections: (a) historical development of the study of life events, (b) overview of recent life event research with a tabular presentation of representative studies, (c) general critique of life event research, and (d) summary of life event literature.

Life Events--Historical Development of Study

Life event research originated out of early seminal work by W. B. Cannon (cited in Lazarus & Folkman, 1984), which, based on his detailed observations, described a relationship between psychic processes and physiologic disturbances. He referred to patients as "under stress," considered stress a disturbance of homeostasis, and implied that degrees of stress could be measured. Cannon (1929) posited that "the persistent derangement of bodily functions in strong emotional reactions can be interpreted as due to persistence of the stimuli which invoke the reactions" (p. 261).

The nature of these stimuli was further refined by A. Meyer in the 1930s. A physician concerned with the physiologic effects of stress, Meyer (1951) advocated the use of a life chart as a tool in medical diagnosis. He illustrated situations or life events that he considered important to note: "changes of habitat, of school entrance, graduations or changes, or failures: the various 'jobs': the dates of possible important births and deaths in the family, and other fundamentally important environmental incidents" (p. 53).

Thus, not only were the concepts of stress and life events wedded and related to potential physiologic repercussions, but the

conviction developed that stressful life events need not be extraordinary to produce observable outcome.

In his review of research presented in 1949 at a conference of the Association for Research in Nervous and Mental Diseases, Wolff (1950) attempted to account for the complexity of the effects of stressful life events that had, by then, become apparent. He proposed:

Regardless of the apparent magnitude, the capacity of a given stress to evoke a protective reaction is a function of its significance to the implicated individual. . . . The significance of a given stress for the individual determined, according to his temperament and past experiences, the characteristics of the protective reactions. (p. 1079)

Life event research was notably boosted by the work of Holmes and colleagues in 1967 with the introduction of two related instruments: the Schedule of Recent Experiences and the Social Readjustment Rating Scale (Holmes & Rahe, 1967). This work was based on the assumption that any change in normal life patterns necessitates a series of adjustments, that these adjustments are always stressful to some degree, and that the accumulation of a significant number of changes and resultant adjustment will produce enough stress to precipitate illness.

The Holmes and Rahe approach made two significant contributions. It expanded the concept of stressful life events to include desirable events as well as adverse ones. It also acknowledged a rating scheme based on objective evaluation rather than one subjectively applied by the implicated individual as an appropriate and meaningful measurement technique. Despite

subsequent criticisms of this approach, the Holmes and Rahe instruments spurred an immense amount of theoretical thought and research in the field.

The basic components in the evolving study of life events were all in place. To summarize, a connection had been well established between psychic and physiologic processes and commonly used a stress/adaptation framework. The concept of stressful life events had emerged as a measurable variable with appropriate dialogue and debate regarding their nature. Also, there was a growing recognition of the importance and effect of potential mediating factors such as individual personalities, experience, and social milieu.

Consideration for diverse outcomes was also emerging. While interest remained keen in the area of disease onset, it was expanding to include psychological dysfunction as well as physical illness, and began to implicate issues related to subsequent adjustment and adaptation.

In 1974, Dohrenwend and Dohrenwend organized and published a report of an international conference that brought together many prominent life event researchers. The report urged the development of more satisfactory measurement techniques and research designs, greater attention to conceptualization, and further exploration of factors believed to moderate or potentiate the effects of stressful life events (Bloom, 1985, p. 5). According to Bloom, the field has been extremely responsive to these recommendations.

Life Events--Overview of Recent Research/
Representative Studies

The basic hypothesis of life event research, as interpreted by Williams, Ware, and Donald (1981), is that the "stressful nature of events may act as a precipitating factor in the onset of symptomatology within both the physical and the mental components of health" (p. 324). According to Rabkin and Streuning (1976), one purpose of life event research, then, is to "demonstrate a temporal association between the onset of illness and a recent increase in the number of events that require socially adaptive responses on the part of the individual" (p. 1014). These authors referred to the widely acknowledged presumption that the effect of such life events is additive; that is, the greater the number of stressful life events experienced, the greater the net effect.

This belief, translated into a research approach, is exemplified by the method pioneered by Holmes and Rahe. The Holmes and Rahe instruments measure stress in terms of the adaptive behavior required by events and provide a summated global index of the life stress experienced.

This popular and persistent approach, with its simple and direct methodology for measuring presumptive stress, facilitated the development of early linear models of causality. Basically, these models strive to relate the independent variable of global life stress, as reflected in stressful life events, to various dependent variables, with physical illness and psychological symptomatology most extensively studied.

In accord with the high degree of face validity that this type of relationship commands, a general overview of the literature revealed an abundance of studies that confirmed the basic hypothesis. The incidence of stressful life events has been empirically related to various kinds of somatic disorders. Among them are heart disease (Edwards, 1971; Hinkle, 1974; Holmes & Masuda, 1974; Lundberg, Theorell, & Lind, 1975; Rahe, Bennett, Romo, Siltanen, & Arthur, 1973; Rahe & Lind, 1971; Rahe & Romo, 1974; Rahe, Romo, Bennett, & Siltanen, 1974; Theorell, 1974; Theorell, Lind, & Floderus, 1975; Theorell & Rahe, 1971, 1972), cancer (Jacobs & Charles, 1980), fractures and childhood leukemia (Holmes & Masuda, 1974), and chronic illness (Wyler, Masuda, & Holmes, 1971).

An even more impressive number of studies have empirically linked the occurrence of stressful life events to a host of psychological disturbances, including suicidal attitudes (Paykel, 1976), schizophrenia (Brown, 1974a, Brown & Birley, 1968), and depression or depressive-related symptomatology (Benjaminsen, 1981; Brown & Harris, 1978; Brown, Sklair, Harris, & Birley, 1973; Clum, 1976; Cochrane & Robertson, 1973; Constantini, Braun, Davis, & Iervolino, 1973; Jacobs, Prusoff, & Paykel, 1974; Lewinsohn, Hoberman, & Teri, 1981; Markush & Favero, 1974; Morrice, 1974; Morrison, Hudgens, & Barcha, 1968; Myers, Lindenthal, & Pepper, 1971, 1975; Paykel, 1973, 1974; Paykel et al., 1969; Paykel, Prusoff, & Myers, 1975; Payne, 1975; Schless, Schwartz, Goetz, & Mendels, 1974; Serban, 1975; Uhlenhuth & Paykel, 1973a, 1973b; Vinokur & Selzer, 1975).

To describe specific relationships between life events and various outcomes, seven studies were selected as representative of current empirical exploration in this field. Their selection was intended to represent some diversity in population, design, methodology, and analytical techniques. Although the specific purposes and findings of the following studies may vary, they all support the basic hypothesis that the occurrence of life events is significantly related to various kinds of health outcomes. Indeed, no studies could be found to clearly negate this hypothesis, although much empirical evidence exists to qualify it. Issues pertinent to these qualifications are systematically presented in the critique of life event literature, which follows later in this chapter. For clarity, the following studies are presented in tabular form in Table 3.1.

In summary, these studies support the hypothesis that the occurrence of stressful life events correlates significantly and positively with the subsequent development of physical and/or psychological dysfunction or distress. As Rabkin and Streuning (1976) pointed out,

As presented in the literature, the results are impressive. . . . [The] sheer number, [the] variety of populations studied, and the range of disorders implicated together suggest that this is a useful and meaningful procedure for predicting illness, and, more generally, for learning more about vulnerability to illness. (p. 1015)

However, as results accumulate confirming a statistically significant relationship between the occurrence of stressful life events and subsequent symptomatology indicative of physical or

Table 3.1: Representative Life Event Studies

Study	Purpose of Research	Design	Technique
#1 Myers, Lindenthal, Pepper, & Ostrander (1972)	Explore relationship between life events and psychiatric symptomatology	Longitudinal survey (fielded twice; 2-year interval)	Interview
#2 Williams, Ware, & Donald (1981)	Explore relationship among stressful life events, social support, and changes in mental health	Longitudinal survey (fielded twice; 1-year interval)	Self-administered questionnaire
#3 Weinberger, Darnell, Martz, Hiner, Neill, & Tierney (1986)	1. Explore relative effects of positive and negative life changes on physical health status 2. Assess both additive and buffering models of social support effects	Cross-sectional retrospective survey (over prior year)	Interview
#4 Vinokur & Selzer (1975)	1. Explore relationship between life events and psychiatric impairment 2. Differentiate between effects of undesirable life events and effects of life change per se	Cross-sectional retrospective survey (over prior year)	Self-administered questionnaire
#5 Lin, Ensel, Simeone, & Kuo (1979)	Explore relationship among life events, social support, and subsequent development of psychiatric illness	Cross-sectional retrospective survey (over prior year)	Interview
#6 Dohrenwend (1973)	1. Explore relationship between stressful life events and psychological symptomatology 2. Differentiate between effects of undesirable life events and effects of life changes per se	Cross-sectional retrospective survey (over prior year)	Interview
#7 Sarason, Johnson, & Siegel (1978)	Test new life event instrument; explore value of separating positive and negative life events and the relative effect ratings of life events	Cross-sectional retrospective survey (over prior year)	Self-report

Table 3.1: Continued

Study	Subjects	Analysis	Results
#1	N = 720 General population (adult community sample)	Multivariate -correlational -chi-square	The greater the number of life events, the more likely is the mental status of the individual to have changed substantially: A net increase in life events is associated with worsening of psychiatric symptomatology, a decrease with improvement.
#2	N = 2,234 General population (adult community sample)	Multivariate regression techniques	Social support exerts beneficial effects, and stressful life events exert negative effects on mental health over time. These effects appear independently direct and additive as opposed to interactive.
#3	N = 196 Specific population (generally poor elderly public housing tenants)	Multivariate regression techniques	Negative life changes correlated more strongly with health than overall changes. Persons who were older and experienced more positive and less negative changes reported better health. Social support had neither a direct nor interactive effect with life changes on health.
#4	Total N = 1,059 Specific population: 774=adult male drivers 285=adult male alcoholic drivers	Product-moment correlations	Significant relationship exists between life events and a variety of stress-induced variables that affect or are equated with mental health. Only undesirable events correlate with the stress-related variables, and these events require greater adjustment than desirable ones.
#5	N = 170 Specific population (Chinese-American adults)	Multiple regression Analysis of covariance	Stressful life events are positively related to the increase of psychiatric symptoms. Social support contributes significantly and negatively to illness symptoms. Social support may mediate the relationship between stressors and psychiatric symptoms.
#6	N = 124 General population (adult heads of families)	Correlational Product moment Contingency tables Partitioned chi-square	Life events, evaluated either by their degree of undesirability or the amount of life change they stimulate, are strongly associated with psychological health.
#7	Total N=620 in five groups of undergraduate college students	Correlational analyses	Life changes, as indicated by stressful life events, are significantly related to several stress-related psychological disturbances, i.e., anxiety, personal maladjustment, and depression.

psychological distress or dysfunction, concern has evolved that this apparent consistency may be due, in some measure, to repetitive use of flawed underlying theory, study design and methodology, or analytical techniques. In the following section, these concerns are presented and discussed.

Life Events--Critique of Literature

Rabkin and Streuning (1976), in their in-depth review and critique of life event literature, spoke to the need for critical evaluation concentrating on issues of method as well as content. These authors organized their critique in four basic areas: statistical issues, psychometric issues, content validity, and mediating variables. These areas are presented separately in the following section, with brief interjections related to their relevance to the study at hand.

Statistical Issues

Rabkin and Streuning (1976) criticized rudimentary statistical methods used to analyze relationships between the number and nature of life events and subsequent outcome:

Between-group differences are often reported only in percentages, or else exclusively in terms of statistical significance. . . . Given the very large sample sizes characteristic of life events research, even very small correlations of no practical utility may pass tests of statistical significance. (p. 1015)

Additionally, critics have denounced the absence of correlation coefficients, and when such coefficients were present, revealed that they were often only marginally acceptable, ranging between .20 and

.30, potentially accounting for as little as 3% to less than 10% of the explained variance in illness (Andrews, Tennant, Hewson, & Vaillant, 1978; Lin, Ensel, Simeone, & Kuo, 1979; Rabkin & Streuning, 1976).

Further, according to Rabkin and Streuning (1976), even when statistically significant differences in illness rates are reported for groups classified in terms of prior life event scores, or when groups of differing health status are compared with respect to number of prior life events, attention remains focused on group means exclusively. Variability of scores within groups tends to be overlooked even when extreme. They concluded, "In practical terms, then, life events scores have not been shown to be predictors of the probability of future illnesses" (p. 1015).

While these criticisms of analytical techniques are indeed important, they are most pertinent to studies that explore causal relationships, unlike the study at hand, which is purely descriptive and does not purport to infer cause and effect.

Psychometric Issues

Another major area of criticism regarding the quality of current life event research concerns two basic psychometric issues, namely, the reliability and validity of the most common form of eliciting life event data, the life event checklist. Although few specific analyses of reliability and validity of life event questionnaires have been published, available evidence suggests weaknesses in both of these areas.

One of the authors of a widely used and influential instrument in life event research, the Holmes and Rahe Social Readjustment Rating Scale, alluded to low values in areas of both reliability and internal validity. In terms of test-retest reliability, Rahe (1974) gave values as low as .26. In terms of internal validity, this author alluded to correlational variance between observational and self-report scores ranging from .50 to .75 (p. 73).

Brown (1974b) referred to three basic sources of invalidity associated with the customary modes of life event measurement which risk erroneous conclusions about etiology of subsequent dysfunction. They are direct contamination, indirect contamination, and spuriousness.

Direct contamination may occur if respondents over-report disturbing life events to justify a present state of dysfunction. Describing this tendency as "effort after meaning," Brown (1974b) referred to a study performed before chromosomal abnormalities were definitively associated with Downs Syndrome where mothers of affected children reported greater numbers of adverse events during pregnancy (p. 223). Indirect contamination may occur if idiosyncratic traits lead variously to exaggerated reporting of life events and/or subsequent dysfunction. Spuriousness may occur when unrecognized factors, independent of life events, contribute to dysfunction. Brown cautioned that "totally accurate accounts can still lead to invalid conclusions . . . and this would still hopelessly confound . . . measures and make conclusions about causal processes unconvincing" (p. 237).

A related problematical psychometric issue is the difficulty differentiating between discrete life event checklist items and the symptoms or consequences of illness. In a well-recognized critique of the Holmes and Rahe instrument, the Schedule of Recent Experiences, Hudgens (1974) identified 29 of the original 43 events as potential symptoms or consequences of illness. This cyclic confusion serves as a unique source of potential contamination and ultimate threat to validity of many life event questionnaires. In a linear relationship, when cause and effect are to some extent both due to the same phenomenon, one cannot be said to precede or precipitate the other.

Many of the psychometric issues presented above prove confounding in the measurement of life events. However, because the study at hand is purely descriptive and does not purport to prove a causal relationship between the occurrence of life events and subsequent outcome, these psychometric issues are not highly problematical. Other potential sources of invalidity given by Rabkin and Streuning (1976) are respondents' errors of commission or omission due to factors such as forgetting, selective memory, denial, or exaggeration. These psychometric issues are pertinent, however, and are discussed in depth in Chapter IV.

Content Validity

The nature of events to include on questionnaires has long been debated in the field of life event research. A major source of contention is whether or not events should be objectively

preselected by experts (rationalized by the value of their extensive experience and knowledge of human nature), or subjectively selected by subjects (rationalized by the evolving recognition of the importance of infusing subjective meaning and significance into the measurement process).

The method pioneered by Holmes and Rahe in the development of their life event instruments was an attempt to answer this. Initially, by incorporating the subjective responses from a large number of respondents asked to select significant life events for the Schedule of Recent Experiences (SRE), it was believed that the resultant Social Readjustment Rating Scale (SRRS) would be sufficiently broad and representative of the total spectrum of significant life events, yet simple to use and appropriate across many groups. Subjectivity in this case, however, is embraced only in a large generalized sense, and critics have maintained that the subjective quality of events may need to be more specifically and individually addressed. The SRRS and its imitators, in the attempt to achieve broad applicability, have been found, predictably, to be insensitive to other factors that influence the individualized experience and meaning of life events. Notable are such factors as age and life course position, position on the health/illness continuum, issues related to social support, and various other sociodemographic features.

Because the life event questionnaire that was developed for the study at hand is a composite of many previous life event

instruments, amended in terms of increased sensitivity to age-related events, and offers opportunities for respondents to write in events not specifically included, it is believed to incorporate the benefits of both objective and subjective item-selection techniques.

Another problematical issue in the measurement of life events arose out of the early work of Holmes and Rahe when stressful life events were defined as any event, both desirable or undesirable, that stimulates a need for change in the ongoing life pattern of the individual. In several of the representative life event studies presented earlier, this controversy was apparent, with cases made for the impact of both desirable and undesirable events. In the study at hand, the issue regarding the desirable or undesirable nature of life events was largely circumvented. Because this study did not use the customary dependent variables characteristic of life event research such as level or degree of adjustment, it was held that discrimination between desirable and undesirable events was unnecessary. Further, because this study was exploratory, a major consideration was comprehensiveness, thus encouraging the inclusion of both desirable and undesirable events.

Evolving concern regarding the content of life event questionnaires demonstrates an increasing sensitivity to the multidimensional nature of life events. This has prompted some investigators to develop other ways to organize the measurement and interpretation of life events. Specifically, a trend toward disaggregating the large universal concept of life events into smaller, more specific components is apparent. Several

investigators have found disaggregation beneficial (Chiriboga, 1984; Dohrenwend & Dohrenwend, 1974; Myers et al., 1972; Rahe, 1975; Skinner & Lei, 1980). Basically, findings have indicated that this disaggregation facilitates isolation and identification of relatively homogeneous subsets of life events. It also assists recognition of various outcomes that may be attributed more specifically to these subsets. Dohrenwend and Dohrenwend (1974) postulated that there are indeed several discrete domains of life events and concluded that those to be sampled must depend on the goals of a given study. In the study at hand, while the approach to the description of life events was aimed at comprehensiveness, the life events included were subcategorized. These categories are important in later analyses in terms of clustering of responses.

A final concern related to content validity of life event questionnaires and one that is particularly germane to this study is life event information as it pertains to the aging process and the elderly. Hultsch and Plemons (1979) maintained that "one would expect to find age changes or differences in the frequency of exposure to and nature of life events" (p. 19). Lowenthal, Thurnher, Chiriboga, and associates (1975) noted significant differences in the frequency of stressful life events as reported by different age groups. Generally, young persons reported exposure to more stressful events than older persons. In addition, the young tended to report more positive stresses, the old more negative.

In terms of the nature of events, an age differential has also been apparent. Rosow (1973) indicated that the types of events experienced by older adults are more likely to involve loss and a decrease or restriction of the social context. Additionally, Hultsch and Plemons (1979) referred to timing and sequencing of events as crucial to the life-span or developmental perspective. Age influences sensitivity to events. The phenomenon of being "off-time" versus "on-time" influences the effects of life events. Accumulating empirical findings have indicated that events are more disruptive if they occur at non-normative times (Borke & Back, 1977; Lowenthal et al., 1975; Neugarten & Datan, 1973).

Additionally, sequencing or patterning of life events relates to aging in terms of the importance of intervals between significant life events. Intervals may shorten, leaving less time for adjustment and successful adaptation as individuals grow older. Hultsch and Plemons (1979) referred to the way in which stressful events cluster. They related this phenomenon to the effects of cumulative exposure to psychosocial stress over the life course as "wear and tear" that may explain the deterioration of organisms over time. These authors also referred to the patterning of events as a phenomenon that extends beyond the individual. Scheduling problems may arise when the events in the life cycle of one individual must interface with the events in the life cycles of significant others.

In the study at hand, no attempt was made to empirically account for the effects of various age-related factors on the experience of life events, except by means of the instrument

designed to collect life event information. This instrument was designed to be highly age-specific. It excludes customary life event checklist items not thought to pertain to an older adult population and includes items believed to be uniquely appropriate to this age group. A complete discussion of content validity as it pertains to the life event checklist developed for this study is presented in Chapter IV.

To summarize, the issue of content validity of the most frequently employed method for the measurement of life events, namely, the life event questionnaire, is a highly complex area and one that is currently evolving. Item content and age-specificity appear to be most problematical. Several new approaches have been used to refine life event measures. A major trend involves disaggregation of life events, thereby increasing specificity in the study of their effects. To this end, Dohrenwend and Dohrenwend (1974) stated, "The prospect of finding that relatively narrow domains of life events are related to specific disorders is an attractive one, either from a theoretical or practical perspective, that deserves systematic investigation" (p. 321).

Mediating Variables

The last major area of criticism regarding the nature of current life event literature concerns mediating variables. Many investigators believe that the failure of researchers to reach consistent conclusions regarding the effects of life events has to do with incomplete consideration for the presence and effect of

various mediating factors. While this study is purely descriptive and does not purport to control for mediating variables, consideration for the type and extent of these factors is clearly indicated and informs subsequent interpretation of data.

The trend in recent research is characterized by an expanded effort to define and empirically account for mediating variables. Bloom (1985) alluded to their nature and underscored the importance of accounting for them: "Personal characteristics and the nature of social situation are important mediating factors and can serve to provide either virtual immunity from or excess susceptibility to illness in the event of the occurrence of stressful life events" (p. 7). Hultsch and Plemons (1979) referred to the propensity of mediating variables to affect individuals differentially, potentially in different ways at different times, and proposed a life-span developmental approach to the study of life events. Since consideration of chronological age and position in the life course is particularly germane to the study at hand, age-relevant issues are included in the following discussion. Although the concept of mediating variables has been variously defined and categorized in the life event literature, Hultsch and Plemons proposed three areas as originating domains of influential mediating variables. These domains are used to organize the following discussion. They are the domains of biological, psychological, and contextual mediators.

Biological mediators. Biological mediators are largely defined as physical capabilities and health-related factors, particularly

significant concerns when dealing with an elderly population. Relative decline in physical ability and an increase in the probability for the onset of health-compromising conditions are widely accepted concomitants of the aging process. Hultsch and Plemons (1979) referred to these biological entities as creating a "floor effect"; that is, biological deficits predict impairment of adaptive capacity (p. 24).

According to Lieberman (1975), while biological deficits may be predicted to compromise adaptation, the reverse is not necessarily true. Adequate biological resources do not invariably predict successful adaptation. At this point, the role of other psychological and contextual variables becomes critical.

Psychological mediators. The array of potential psychological mediators is vast, complex, and often difficult to organize and present conceptually. Some psychological mediators are given as intensely personal in nature, such as specific personality types and resultant trait-based behavior (Friedman & Rosenman, 1974; Kobasa, 1979). While internally oriented factors are indeed relevant to the effect of life events, the more recent trend has been to turn away from rigid categorization of internal psychic types and traits. "Investigators . . . have turned their attention to the delineation of broad life styles and behavior patterns rather than specific intrapsychic constellations and conflicts" (Rabkin & Streuning, 1976, p. 1018).

Some psychological mediators appear relatively simple and straightforward in their influence on the effects of life events.

For example, basic cognitive ability is indeed related to interpretation of events and is highly relevant to resultant adaptive behaviors (Hultsch & Plemons, 1979). However, the influence of more subtle psychological mediators is more problematical in terms of measuring and interpreting the ultimate significance of life events. Related to the aging process, the role of psychological mediators is best reflected in the literature by factors related to the dynamic processes of appraisal and coping. Appraisal and coping processes often inform the vital connections between past experience, reactions in the present, and the effect of life events in the future with strong prognostic tendencies.

Appraisal of events is influenced by many factors. According to Hultsch and Plemons (1979), older adults have a greater accumulation of knowledge and may use this as a resource to gain a broader life perspective. This tendency may underlie the general empirical finding that older subjects tend to report fewer stresses than younger subjects (Lowenthal et al., 1975).

Anticipatory socialization is related to appraisal of events and may serve as a resource for the individual to the extent that it acts to decrease situational ambiguity and increase available responses (Albrecht & Gift, 1975; Hamburg, Coelho, & Adams, 1974). There appears to be less anticipatory socialization for events that involve defeats and losses (Hultsch & Plemons, 1979), both negative factors highly significant in the aging process. Evidence exists

that there is generally less anticipatory socialization for events associated with aging (Rosow, 1973).

The subjective assessment of personal status may also affect the process of appraisal of life events, and reveals important shifts over the adult life span (Bortner & Hultsch, 1972). Generally, indices of both gains made in the past and gains anticipated in the future decline with age and appear to be linearly consistent over time (Hultsch & Bortner, 1974). A positive assessment of the future as well as the ability to introspect appear to influence the appraisal process with older adults (Lieberman, 1975; Lowenthal et al., 1975).

Factors such as values and goals play important roles in the appraisal process. Empirical evidence has indicated that they tend to shift across the life span as well. Younger individuals tend to hold more expansive goals and higher expectations, whereas older individuals are more likely to caution against setting high goals and therefore exhibit lower expectations (Lowenthal et al., 1975; Ryff & Baltes, 1976).

The logical outcome of appraisal of life events is coping with them in some manner. The coping process may be viewed more on the outcome side of the empirical equation regarding the effect of life events. However, in the conceptual framework as presented in Chapter II (House & Robbins, 1983), coping refers to behavioral or psychological processes designed to mitigate or eliminate threat.

Briefly reviewing the literature regarding the coping process from a developmental perspective, extreme controversy quickly

emerges. Some investigators have believed that coping capabilities generally decline with age (Gutmann, 1974), some have believed that coping capabilities are strengthened (Vaillant, 1977; Pfeiffer, 1977), some have found no clear differences (Folkman & Lazarus, 1980), and others have qualified the coping process referring to differentially applied mechanisms over time and related this to the changing nature of life stresses during the aging process (McCrae, 1982).

Lazarus and Folkman (1984) concluded, "The course of coping from childhood to adulthood remains to be charted" (p. 171). They summarized:

At this state of knowledge, and without better evidence, it seems best to assume that aging per se brings no changes in coping; it is when people are faced with deteriorating environmental conditions and impaired physical and mental resources that they display regression to the more dependent, helpless period of infancy and early childhood. (p. 173)

Contextual mediators. Contextual mediators are most often defined as situational factors embedded in the social context, and are presented as highly influential. The nature and quality of social support and levels of social integration, social interest, and social status have been most frequently studied (Andrews, Tennant, Hewson, & Vaillant, 1978; Caplan, 1981; Cobb, 1976; Crandall & Lehman, 1977; Dean & Lin, 1977; Dohrenwend, 1973; Dohrenwend & Dohrenwend, 1974, 1978; Johnson & Sarason, 1979; Krause, 1986; Lin et al., 1979; Myers et al., 1975; Rabkin & Streuning, 1976; Rahe, 1979; Weinberger et al., 1986; Williams et al., 1981).

As may well be predicted, theoretical and empirical clarity around the issue and role of socially oriented mediators in the study of life events proves elusive. Mainly, current findings seem to indicate that high levels of social support, integration, interest, and status seem to buffer the effect of stressful life events. Debate continues, however, regarding the exact nature of this effect. (See Table 3.1.)

In terms of aging, the mediating effects of social support on the impact of stressful life events provokes significant, although often contradictory, opinion. Rosow (1973) believed that older individuals tend to belong to fewer groups, have fewer friends, and see them less; he concluded that supportive frameworks and interpersonal relationships frequently decline with age. However, there is also evidence to suggest that relationships among older adults are not so easily described. Lowenthal et al. (1975) maintained that social relationships among older adults are more likely to be highly complex and subtle in nature.

Finally, in terms of completing the description of mediating variables, some authors have turned from the larger issues of potentially mediating domains and have emphasized a more specific event-oriented perspective. Individual perceptions of events (Rahe, 1979), past experience with similar events (Dohrenwend & Dohrenwend, 1978; Johnson & Sarason, 1979), predictability of events (Dohrenwend & Dohrenwend, 1974), perceived severity of events both normatively and individually (Zubin & Spring, 1977), and degree of actual and perceived control over events (Dohrenwend & Dohrenwend, 1974, 1978;

Johnson & Sarason, 1979; Kobasa, 1979) are all factors believed to be instrumental in the evaluation of the ultimate effect of life events.

In summary, there appears to be a large variety of factors that mediate the effect of life events on individuals. Rabkin and Streuning (1976) emphasized both their cumulative effect and the reciprocal relationships between them, but concluded that because they derive from so many sources, a general critical appraisal would be "unsuitable" (p. 1019).

Simple recognition that there exists a myriad of significant variables to consider in the study of life events is far distant from accounting for them empirically. Krause (1986) referred to the distinct need to disaggregate not only life events but also mediating variables. It clearly follows that there is a need to refine dependent outcome variables as well. Increasing specificity regarding the stressful nature of certain life events, the nature and effects of certain mediating variables, as well as their cumulative effect on certain specific outcomes speaks to the ultimate goal of all research: to responsibly and systematically increase the knowledge base in a given area of study to the end of eventually informing and extending relevant theory. Only this increase in specificity will ultimately, in a practical sense, generate accurate implications and appropriate ensuing interventions.

According to Dohrenwend and Dohrenwend (1978), although there is a large body of research indicating that life events are indeed associated with a wide range of disorders and distress, it does not provide a clear picture of the nature and strength of these relationships. Brown (1974b) referred to the value of empirical experience and the importance of exercising expertise in guiding the study of life events:

Just how much material should be collected is best settled by experience. In one sense we can never be said to have enough. It is a matter of establishing how much must be collected to make our analyses reasonably convincing. . . . It is unreasonable to expect to cram into the event rating all the contextual material. . . . The life event measure itself should not be asked to do too much. . . . It is clear that very many kinds of contextual phenomena help to determine the significance of events. There are so many that it does not seem . . . to be practical merely to classify the formal characteristics of the event . . . and later take account of the myriad other possible factors by some form of statistical analysis. We must rely on human judgement to make this synthesis. Just how much of the biographical material should be kept apart in making such ratings is something I suggest is best left to emerge from the research process itself. (p. 239)

As Dohrenwend et al. (1978) concluded: "Decisions will have to be made in terms of the design and purpose of a particular study" (p. 228).

Life Events--Summary of Literature

The organized study of life events has spanned many years and involves a large body of complex research. Basic hypotheses have alluded to significant relationships between the occurrence of stressful life events, mediating variables, and various kinds of outcomes, usually expressed in terms of physical or psychological health.

In main, the literature supports the contention that the occurrence of stressful life events correlates significantly and positively with the subsequent development of physical and/or psychological dysfunction or distress. However, concerns exist regarding the statistical methods customarily employed in analysis, methodological issues related to reliability and various types of instrument validity, and the adequacy of consideration for the effect of various potential mediators that qualify this relationship.

The call to increase empirical clarity is evident and largely implicates the need to increase specificity regarding the nature of stressful life events as well as related outcomes. There is a paucity of research devoted to issues specifically posed by this study. Essentially, this study asks: Can life events, as experienced and reported by a certain population of older adults, be described as potential motivators for relocation?

In the next section of this chapter, studies involving the effect of environment and environmental change relative to older adults are reviewed. The major focus is on relocation from independent to assisted-independent living environments.

Living Environments of Older Adults--Introduction

In the following review of literature related to the living environments of older adults, three groups of studies are presented. The first group consists of four retrospective survey studies commonly using a comparison group format. All strove to compare

various indices of life satisfaction between older adults who relocated from general community living to various forms of living environments specifically designed for elderly occupants and those who did not relocate. The second group consists of four prospective survey-type studies commonly designed to explore housing preferences and/or care alternatives of older adults. The last group consists of three prospective survey-type studies that further refined and extended housing preferences into primary reasons or chief motivators given for relocation.

Living Environments of Older Adults--Representative Studies

Group 1

That living environment is strongly correlated with various factors thought to reflect life satisfaction is strongly supported in the literature. Following are four studies that explored this relationship. They all compared various indices of life satisfaction of older adults following relocation from general community living to various forms of living environments specifically designed for occupancy by older adults.

The first study is important as the first effort to follow a relatively intact group of older adults for a considerable period of time (Carp, 1975a, 1975b, 1977). In-movers to Victoria Plaza, a low-cost public housing project for the elderly in San Antonio, Texas, were interviewed. A new facility at the time, Victoria Plaza was described as a nine-story building accommodating approximately 220 older adults in 184 separate apartments particularly designed

for elderly occupants. It contained the county's first senior center, interspersed common rooms, and two self-service elevators. It did not contain medical facilities or provide medical care.

Subjects were among the first group of applicants to the facility, all accepted by the Housing Authority in terms of income, health status, and ability to live independently. None were affluent or extremely poor; none were seriously ill or handicapped. Generally, applicants came from substandard or inadequate housing. Demographically, however, applicants largely represented the typical old in this country (Carp, 1975a). Average age of subjects was 72.2 years.

Baseline data were collected on 352 subjects, 204 of whom eventually moved and 148 who did not. The sample was fielded again at 18 months after 1 year of residency (movers = 190 and nonmovers = 105), and finally at 8 years (movers = 127 and nonmovers = 62). The basic hypothesis of the study was that improved living environment would improve life satisfaction.

Interviewed individually, subjects were assessed for satisfaction with housing as well as for the short- and long-run effect of their new living environment on overall morale and life satisfaction. The 1977 analysis also tapped several health-related factors. Analytical techniques consisted largely of regression analysis of covariance which compared change over time among movers and nonmovers, expressed at a 5% level of confidence.

Results overwhelmingly supported the basic hypothesis. To summarize, as compared with nonresidents, residents reported fewer major life problems, increased levels of present and overall life satisfaction and happiness, a larger sense of fulfillment through time, increased levels of future-oriented optimism and confidence, less preoccupation with thoughts and fear of death, and a generally expanded positive life attitude. They reported an increased sense of security both for physical safety and residential continuity. Indeed, some residents thought the advantages of living at Victoria Plaza would increase the number of years they would live, a belief validated by actual death-rate comparisons between movers and nonmovers.

Residents expressed a favorable effect on ability to maintain usual activities of daily living as compared with the persistent and increasing rise in difficulties with these tasks by nonmovers. Residents reported an increased sense of independence, better opportunities to make friends, and improved feelings of dignity. Residents consistently rated their new housing higher than nonmovers. They thought it was appropriately priced, an opinion not shared by nonmovers. When asked if they would like to move, 86% of residents at the 8-year interval responded negatively, while 65% of nonresidents still expressed a desire for different housing. At the end of the 8 years, every male resident and 80% of the female residents expected to remain at Victoria Plaza for the remainder of their lives.

Although not a direct index of life satisfaction, Carp (1977) extended analyses of Victoria Plaza data to explore various aspects of physical health and disability. Residents generally exhibited less decline in health than nonresidents. They reported health less frequently as a major problem, increases in self-reported ailments were less, and attitudes toward health showed less decrement than nonresidents. Nonresidents reported a greater increase in restriction of activities and time spent on health care. Medical contacts, including hospitalizations, were comparatively elevated among nonresidents.

The strength of these studies dwells primarily with their longitudinal design. Refielding after 8 years of residency reduced the possibility of "honeymoon effect," or the tendency of subjects to report more positive effects simply due to change itself or its relative recency.

Major limitations, ones that limit generalization, dwell with selection bias and the nature of the environmental change. The self-selection process no doubt increased person-situation congruence. As Carp (1975b) pointed out,

Such favorable results would not be expected for less intact old people, or for those who were moved, even to a similar environment, but under conditions of diminished autonomy and opportunity to judge the suitability of the living situation as a context for their own lives. (p. 72)

In terms of the nature of environmental change, it is prudent to remember that the applicants to Victoria Plaza came from generally substandard or otherwise undesirable living environments. Consequently, the favorable results of this upgrade into a new,

specially designed and heavily age-peer-populated living environment may not be the same for individuals coming out of more satisfactory original living environments.

In response to the Victoria Plaza research, Lawton and Cohen (1974) conducted a study to attempt correction for self-selection bias. In a longitudinal comparison-group design, they explored the effect of rehousing on the social and psychological well-being of older adults. While all of the subjects in the Victoria Plaza study desired change in living environment, the Lawton and Cohen study used a comparison group not considering relocation.

The experimental group in this study ($N = 574$) was randomly selected from applicants to five new housing sites: two low-rent public housing facilities and three lower-middle-income federally assisted projects. The control group ($N = 324$) was derived from probability and matched samples of community-dwelling older adults.

At baseline, information was gathered regarding background characteristics, attitude toward moving, expectations of new housing and housing attitudes, family relationships, social interaction, activity patterns, self-rated health, and morale. The sample was fielded again at 1 year ($N = 591$) to assess several parameters related to physical and psychological well-being.

Results were analyzed for change over time and compared by means of multiple regression techniques. In general, the investigators found rehoused subjects indeed exhibited higher

housing satisfaction and increased morale. The overall favorable effect, however, was small.

Accounting for this positive yet small effect, the authors extended a cautionary note and further qualified their findings. They speculated that older people, particularly those with housing and other problems, are likely to be more vulnerable to environmental influence than people in general. Also, rehoused individuals may attempt to make their evaluations more consonant with the fact of having a new residence. They may be wary of responding in other than a positive fashion. While the authors interpreted that advantages could indeed be expected from rehousing the elderly, particularly when the decision to rehouse is made by the individuals themselves, the expectation that new housing could transform lives was judged unrealistic. Much may be lost in the move, and individuals are bound to lifelong personalities, current capabilities, and ongoing problems.

Another significant finding in the study was that the rehoused subjects showed a substantial decline in functional health. The investigators offered several speculations that might account for this. Relocating subjects may have perceived a vulnerability in themselves, leading them to seek a more protected environment. Once there, they may have felt more comfortable admitting physical limitations. The actual physical environment may curtail functional capacity via new barriers, and the protected aspect of the new environment may discourage striving. The relocation experience itself, as well as the new and different demands imposed, may

undermine residents' energy expenditure. However, while the authors admitted that nothing is more regular than the correlations between health and morale, social behavior, or leisure activity, despite the apparent decline in functional status, the net change in several other indices of well-being ran in favor of the rehoused. The relative improvement (or lesser decline) in other criteria of well-being may buffer the negative effects of change in residential environment and facilitate an improved psychological state.

In another landmark research effort, a quasi-experimental short-term study evolved from the Philadelphia Geriatric Center's 6-year pilot program to rehouse community-dwelling older adults in their intermediate housing project. Brody, Kleban, and Liebowitz (1975) strove to relate a change in environmental living conditions with housing satisfaction. This intermediate housing project was an urban constellation of nine renovated two-story semi-detached houses in close proximity to one another and to the Center. With three apartments per house, each was self-contained with private bedroom, kitchen, bath, and a shared living room. The Center provided no medical care services; however, general social services were available at time of transfer. Ongoing housekeeping services and the provision of one daily frozen main meal were optional at nominal cost.

Subjects ($N = 87$) were randomly selected from a larger group of applicants who spontaneously applied for tenancy and met basic eligibility criteria of age, income, and functional health status.

All were assessed and believed able to live relatively independently. Most of the subjects previously resided alone in apartments or houses, the rest in rooming houses, single-room occupancy, specialized elder housing, or with family. None came from institutions or boarding houses.

Subjects were ultimately separated into three categories: the experimental group who moved into the intermediate housing, those who moved elsewhere in the community, and those who did not move at all. No significant differences between groups existed on age, family status, or income. Data were collected at baseline (before the move), and again at 6 months after the move, from all subjects.

From the extensive data pool derived by a questionnaire based on several instruments, four variables associated with housing satisfaction were isolated. The results, in terms of these four variables, were as follows: In terms of satisfaction with neighborhood, at baseline all groups were similar and expressed significant dissatisfaction. At 6 months, both groups of movers expressed more satisfaction, with nonmovers remaining at their original level of dissatisfaction. In terms of satisfaction with their specific individual living accommodations, at baseline all groups were equally dissatisfied. At 6 months, only those who moved into the intermediate housing showed increased satisfaction. In terms of overall satisfaction with their living arrangements, at baseline all groups were dissatisfied. At 6 months, the nonmovers still expressed their original level of dissatisfaction; both mover groups showed significant improvement, but the intermediate housing

movers showed a significantly greater degree of satisfaction than the other moving group. In terms of ongoing desire to move, at baseline all groups expressed a desire to move. At 6 months, the desire to move had dissipated for 91% of the intermediate housing residents, 59% of the community movers, and 16% of the nonmovers. In response to two additional questions ("Are you enjoying life?" and "How many good friends do you have?"), the three groups were equivalent at baseline. At 6 months, however, significant differences in favor of the intermediate housing movers were clearly evident.

In a re-examination of the Philadelphia data, Kleban and Turner-Massey (1978) further refined the earlier results. Using more sophisticated analytical techniques and submitting more variables to analysis, these investigators focused primarily on changes in the personal status and functional capabilities of the subjects and the changes directly attributable to the experience of living in the various new environments.

Essentially, the basic conclusions supported those expressed in the Brody et al. (1975) study. Nonmovers had fared poorly; their morale had declined, their housing deteriorated, and most still desired to move. In contrast, movers had fared considerably better, with the intermediate housing movers faring the best. The intermediate housing tenants liked their living arrangements, had attained freedom from fear and crime, had more close friends,

perceived themselves in better health, and were more satisfied with their housing overall.

In summary, impressive evidence exists to affirm the relationship between a change in living environment for older adults, particularly of the assisted-independent type, and an increase in general life satisfaction.

Exactly why this relationship exists and other specific variables that may influence it remains open to speculation. Several studies have explored various facets of the living environment/life satisfaction relationship. Factors such as behavior flexibility (Gubrium, 1970), self-assessment of health (Palmore & Kivett, 1977), environmental characteristics (Carp & Christensen, 1986), life cycle stage (McAuley & Nutty, 1985), spatial considerations (Blonsky, 1975), and person-environment congruence (Morris, 1975) have all been found to significantly affect residential and overall life satisfaction and morale.

Admittedly, the relationship between living environment and life satisfaction is exceedingly complex. In the studies cited above, a major limitation concerns the use of retrospective techniques and the potential biases inherent in this perspective. An alternative to the retrospective approach is to explore this relationship in a more prospective manner, focusing on the preferences that older adults who have not relocated express in terms of living arrangements. The following four studies exemplify a prospective approach to the measurement of living environment and life satisfaction.

Group 2

In a study to assess living arrangement preferences (Beland, 1987), three random samples of urban elderly in Quebec, judged to be representative in terms of age, gender, and location according to 1981 Canadian Census information, were interviewed in their homes (total $N = 1,191$). They were questioned regarding actual living arrangement, preferred living arrangement, desire to leave home for another setting, and whether or not they had actually requested an alternative setting. Results indicated that 23.6% preferred to live alone and 33.4% preferred to live with spouse, leaving 43% who preferred to live with another person. Children and other people were each chosen by 13%. A significant proportion of those living alone wanted to change their living arrangement, but their choice was to live with persons other than their children. A large percentage of the unmarried persons who lived with others wanted to change their living arrangements either to live alone or to live with someone other than one of their family members. In the author's view, these results clearly supported the basic contention that elderly people have internalized values of autonomy and independence with regard to living arrangements.

In a complex study of future outlook related to care-giving and care-receiving in the family context (Rakowski & Clark, 1985), data were gathered from 90 pairs of family care-givers (mean age = 54.5 years) and care-receivers (mean age = 75.6 years). Stressful aspects of the care phenomenon were also assessed. One subgroup of

care-receivers stated that the prospect of continuing to receive assistance was sometimes so imposing that it was difficult for them even to think of other future aspects. Another subgroup stated that the loss of independence was their major stressor.

In a study to explore age differences in preferences for family versus nonfamily care sources, Sanders and Seelbach (1981) surveyed a random sample of 450 subjects by telephone (mean age = 42.19 years). Of the total subjects, 184 preferred family care alternatives, while the majority (222 subjects) looked to other outside sources. The oldest group (mean age = 53.71 years) preferred church-related care alternatives, while the next oldest age group (mean age = 50.18 years) looked to "self."

Results of a mail survey study of 988 subjects on the waiting lists for two new suburban continuing-care retirement communities (Tell, Cohen, Larson, & Batten, 1987) revealed that 94% cited access to services to maintain independence as the prime motivator for application. Fear about being a burden on other family members was cited by 74%.

In summary, the apparent preference of older adults for arranging future living environments that maximize independence and autonomy is clear. However, as individuals age, their susceptibility to circumstances and conditions that compromise these valued entities increases. The normal changes of aging as well as the occurrence of major life disruptions can indeed interrupt and alter this ongoing quest for independence. The following three studies, also prospective in nature, further refined the concept of

residential preferences and explored primary reasons and chief motivators given for relocation.

Group 3

In an attempt to explore types of residential mobility and their determinants, Speare and Meyer (1988) used data from the National Annual Housing Survey selectively made representative of the national population of household heads or spouses 55 years of age or older. The investigators categorized data that reflected reasons for moving in this age group. However, the largest single category was given as "other," the specific components of which could not be coded by the survey. Health reasons and preparation for aging were cited elsewhere by these authors as important determinants of the decision to move (Meyer & Speare, 1985). They maintained that these reasons most probably fell within the annual survey's "other" category and so supported the supposition that certain select age-related changes may be important factors in the decision of older adults to relocate.

In a study to explore the decision of older adults to leave their homes, Beland (1984) interviewed three random samples ($N = 1,750$) of individuals over 65 years drawn from pension records of the Federal Canadian Government thought to be representative of the national population at large. Information gathered in 10 broad observational sectors consisted of: (a) common sociodemographic variables, (b) housing conditions, (c) state of physical and mental health, (d) functional incapacity, (e) means of social integration,

(f) use of health-related services, (g) responsibility for domestic tasks, (h) help from various social agents, (i) desire to live with persons other than those sharing the home, and (j) desire for a given type of dwelling. Results indicated that the persons who wished to leave their homes simply did not have sufficient resources to remain in them.

Finally, a study that brought together several aspects of preferred living environments for older adults related the consideration of moving to three indirect measures of housing needs: occurrence of major life disruptions, level of personal independence, and satisfaction with current environment (Nelson & Winter, 1975). From a population of 559 members of a local senior citizens organization, a random sample of 75 community-dwelling individuals age 62 years and older was interviewed. At the time data were collected, two large age-segregated apartment buildings had been built in the near community and offered an opportunity to study elderly housing consumers who had distinctly visible local alternatives to remaining in their present homes. The study purported to assess the degree of willingness these elders expressed to move and an analysis of factors associated with consideration of moving.

The results indicated that 60% had considered moving. None of the demographic, socioeconomic, health, housing, or neighborhood variables were related to the consideration of moving, with the exception of gender and type of structure of present living

environment. Males were much less likely than females to have considered moving, but because there were relatively few male respondents, the investigators believed this finding to be inconclusive. Structure type was the only housing characteristic associated with consideration of moving. Respondents residing in rooms with cooking privileges, boarding houses, or mobile homes were more likely to consider moving than respondents living in either apartments or single-family dwellings.

Three other variables, however, were found to significantly influence consideration of moving: levels of satisfaction with present housing, levels of personal independence, and the occurrence of major life disruptions.

Individuals who were dissatisfied with their present living environment were more likely to consider moving. Satisfaction with the number of rooms, protection against intruders, ease of housekeeping, and overall housing satisfaction had very strong negative associations with the consideration of moving. Satisfaction with heating comfort, number of floors, and neighborhood had substantial negative associations with the consideration of moving. Satisfaction with privacy was moderately associated with the consideration of moving. Although for some of the specific variables assessed the number of dissatisfied respondents was small, all or all but one of the dissatisfied respondents were considering moving.

Personal independence was assessed in terms of the ability to move about, physical self-care abilities, and abilities to care for

the home environment. The ability to walk unassisted as well as the ability to perform requisite selected activities of daily living had a moderately negative association with the consideration of moving. The investigators contended that many of these factors related to the consideration of moving indicate a need to provide some supportive services in the home environment.

The investigators hypothesized that a potential mode of adjustment to major life disruptions is to move. In this study, the respondents were asked if any of the following events had occurred in the past year: retirement; accident; serious illness of self, spouse, close friend, or relative; death of spouse, relative, or friend; inability to perform self-care at any time; departure from the house by a household member; or departure from the neighborhood by close relatives or friends. Respondents were categorized according to those who had experienced one or more disruptions and those who had not. Results indicated that individuals who had experienced disruptions were more likely to consider moving than those who had not.

In summary, Nelson and Winter (1975) concluded that the consideration of moving is prompted by a lack of fit between characteristics of the dwelling and those of the household. Admitting low probability for assessing this discrepancy by objective measures (as indicated by the low association between consideration of moving and such factors as age, household size, income, tenure, dwelling size, and housing cost), they proposed a

causal model in which thoughts of moving seemed to emanate from a chain of events beginning with one or more disruptions related to the aging process:

Thus, a disruption--a major illness in the household, the death of a spouse, the inability to care for oneself--causes a lessening of physical independence. If the dwelling is not suited to the reduced level of independence, dissatisfaction with the dwelling is likely to arise and, in turn, moving is considered as a possible response. (p. 164)

Finally, the investigators called for future research to explore further the nature of the chain of events that precipitate consideration of moving and the relationship between this chain of events and the housing alternative sought.

Living Environments of Older Adults--Summary of Literature

Living environment is strongly associated with life satisfaction. Many variables can affect this relationship. Maintenance of independence and autonomy often influence the selection of preferential living environments. The effects of antecedent life events can profoundly affect the ability to preserve and maintain independence and autonomy, and are strongly correlated with efforts to derive living environments that maximize these qualities.

Life Events--Antecedents to Environmental Change

Recent trends in life event research have been to increase specificity in both independent and dependent variables, with increased emphasis on consideration for the presence of potentially mediating variables involved in these relationships. One purpose of

this study was to describe the life events that preceded relocation from independent living into assisted-independent living environments. Clearly, in this study, the focus on environmental change delimited the outcome variable; however, little empirical research exists in this specific area. Although life events have been studied in their predisposing role as antecedents to various kinds of change, only one study could be found that definitively addressed the issue of life events as potential contributors or precipitators to relocation.

In a study to develop a decision-making process model, Beaver (1979) interviewed 108 elderly voluntary relocators to community retirement apartments in Los Angeles. The initial component in the model was given as "the precipitating event," defined as an event, sudden, adverse, and unexpected, which induces a change or adjustment in the physical, social, or emotional life of the experiencer (p. 568). In this study, 80% of relocating respondents indicated that they had decided to move because of a precipitating event or some major life disruption.

While there is a distinct paucity of empirical findings, some authors have offered pertinent commentary on this issue. Lawton (1981) maintained that

living arrangement is a dynamic aspect of a person's situation, representing both an outcome of antecedent events and itself an antecedent to other outcomes. Living arrangement can thus be an indicator of things that have happened or things yet to happen in the life of an older person. (p. 59)

In terms of living arrangement as an outcome of antecedent events, he stated,

The usual determinant of how an individual lives is a life cycle event associated with a normatively-influenced choice of how one is to live, moderated by the idiosyncratic needs of the individual or multiperson unit. These norm-determined situations are clearly moderated by the flexibility or rigidity of the norms and the pressures of individuals to behave differently. (p. 59)

In terms of specific antecedent life cycle events, however, Lawton (1981) referred only to large global determinants such as gender, marital status, parity, and functional health. Much of the empirical work on the adequacy or appropriateness of living environments for older adults has been conducted after the fact. Many environmental options have evolved simply because they seemed plausible and appeared to meet what planners interpret as the needs of older adults. Little hard evidence exists, however, regarding the processes that may precede specific environmental preference and selection by the older adults themselves.

Consistent with findings presented earlier, the specific kinds of living arrangements that elderly individuals preferentially select are probably related to the degree of autonomy and independence they incorporate. Moderated by environmental characteristics that answer self-perceived needs often predicated on functional capabilities, they are ultimately chosen based on their perceived balance between independence and security and the related life satisfaction this balance represents.

Whether or not options in assisted-independent living buffer the effects of major life events, offer an environment that encourages independence and autonomy, and are thus preferentially

embraced by older adults remains to be seen and should be explored in future research. The logical starting place, however, and as this study purports to do, is to select a significantly popular type of environmental option increasingly available to older adults and attempt to isolate those specific life events that precede its selection, self-perceived and described as potential motivators.

Summary of Literature

In terms of the major variables in this study, the review of literature concerned three basic areas: (a) the study of life events; (b) investigations into living environments of older adults, specifically the assisted-independent type; and (c) life events as antecedents to environmental change or relocation.

In terms of the study of life events, the literature supported the hypothesis that the occurrence of life events, potentially perceived as stressful, correlates significantly and positively with the subsequent development of dysfunction or distress. The literature also indicated that the occurrence of life events, in terms of type and degree, may be different for an aging population.

In terms of the living environments of older adults, the literature supported the contention that older adults prefer a living environment that maximizes features of independence and autonomy and relates the presence of these features to increased levels of life satisfaction and overall sense of well-being. One type of living environment that acknowledges this preference, encompasses opportunities that foster independence and autonomy, and

thus has been shown to positively influence life satisfaction and well-being, is the organized assisted-independent type of residence.

While life events have been studied as antecedents to various kinds of change, there is a distinct paucity of research relating the occurrence of life events, age-specific or otherwise, to the outcome of change in living environment or relocation. This is the issue that specifically concerns the study at hand. Essentially, this study posed the questions: What life events preceded the relocation by elderly individuals from independent into assisted-independent environments, and of these specific life events, which ones were self-perceived as potential motivators to this outcome?

CHAPTER IV

METHODOLOGY AND PROCEDURE

Overview

The purpose of this chapter is to present the methods that were employed and the procedures that were instituted in order to accomplish a study to describe the life events that preceded relocation by elderly individuals from independent to assisted-independent living environments and, further, to identify and describe those events that were perceived to be motivators to the relocation. The content of this chapter includes the design of the study and descriptions of the sample, sampling techniques used, and the participating residential facilities. Included also are (a) a discussion of the development of a new life event instrument, (b) description of instruments used, (c) issues related to instrument reliability and validity, (d) data-collection procedures, (e) data-analysis techniques, and (f) a statement regarding the protection of respondents' human rights.

Design

This study was nonexperimental and relied on retrospective survey questions to describe and explore life events that may have contributed to subjects' relocation from independent to assisted-independent living environments. The survey design, according to

LoBiondo-Wood and Haber (1986), is characterized by an investigator's search for accurate information, particularly as it relates to the characteristics of subjects, groups, institutions, and situations. The investigator describes events, attempts to find meaning in observed phenomena, and scrutinizes the experience for factors that contribute to its occurrence. The data generated by a descriptive survey design may be used to broaden the understanding of a phenomenon, assessing it in order to create informed plans for improving current conditions or practices.

Although the descriptive approach does not embrace hypothesis testing, this study tentatively explored the supposition that the occurrence of life events in the preceding year may be related to the act of relocation of elderly individuals from independent to assisted-independent living environments, and that specific life events can be identified as self-perceived motivators to the relocation. The major variables in this study had already occurred. In terms of the major independent variable, it was assumed that specific life events had transpired in the lives of these older adults. The dependent variable, or the relocation from an independent to an assisted-independent living environment, had transpired. Due to this retrospective quality and the largely exploratory nature of a study problem that does not claim a testable hypothesis, the descriptive survey design was believed to be most appropriate. This design also facilitates the need to assess a current trend in environmental living options open to elderly

individuals and to derive pertinent information relevant to its evolution.

Sample, Subjects, and Sampling Techniques

The sample that was selected for this study was older adults (55 years and older) who had relocated from independent to assisted-independent living environments, for the first time, within the preceding 6 months. The residential facilities that participated in this study are described in depth in the following section. The administrative staffs of the participating assisted-independent living residences assisted the delineation of the sample by using records to establish a list of all in-movers over the preceding 6 months. In terms of independent living status before relocation, the sample was initially established by an a priori technique. All of the participating residences in this study require that in-movers at time of assuming assisted-independent residency, be capable of independent functioning at least in the basic categories of daily life: ambulation, bathing, grooming, toileting, dressing, and eating. In addition to this a priori screening modality, the sample was further derived by screening in-movers using Part I of the Sociodemographic Descriptive Questionnaire (SDDQ), Determinants of Eligibility (see Appendix A). This questionnaire was given to the participant in interview format by the researcher.

Subjects who were included in the study met the following criteria: They (a) had relocated from independent to assisted-independent living environments within the preceding 6 months, (b)

were able to speak and understand English, (c) were capable of answering questions coherently, (d) were 55 years of age or older, and (e) voluntarily agreed to participate and cooperate in this study.

The items on the SDDQ that were used for determining eligibility appear in Part I of the questionnaire. They are: (a) age, (b) adequate fluency in English, and (c) characteristics inherent to the previous permanent residence that reflect an acceptable degree of independent living as indicated by absence of formal supportive services and/or facilities.

In terms of the last item, this criterion required only that individuals had previously resided in an environment that did not contain any inherent, formal, or contractual supportive services or facilities. Subjects may indeed have been recipients of various forms of services or assistance to facilitate or augment their abilities to perform normal activities of daily living such as those provided by various community organizations or by family. The SDDQ assesses this aspect in terms of type and degree. However, receiving this kind of outside or informal support did not preclude participation in this study.

In summary, if participants were unable to respond to the eligibility items, if they were less than 55 years of age, if they did not communicate in English, or if they had resided permanently in an environment that offered any kind of inherent, formal, or contractual services or facilities designed to augment abilities to

conduct normal daily living activities, they were considered ineligible for participation in the study. All other items on the SDDQ (Part II) were designed to be exploratory in nature.

The sampling technique selected for use in this study was an accidental sampling or sample of convenience. Convenience sampling is a nonprobability sampling method (LoBiondo-Wood & Haber, 1986). The participants were selected from those individuals who newly presented to the assisted-independent living facility and met their criteria for residency, within the 6 months before data collection, and met the eligibility requirements as specified on the SDDQ. Confining selection to these subjects who had newly presented to participating assisted-independent residences is a mechanism designed to reduce potential bias that may emanate from previous unsuccessful relocation attempts.

Description of Residential Facilities

Four facilities offering assisted-independent living options to older adults in the Grand Rapids, Michigan, area voluntarily participated in this study. All were private facilities, with three classified as nonprofit and one currently operating for profit. Three were suburban and one urban in locale. Two had religious affiliations, although this did not influence eligibility of residents. These facilities differed in terms of the spectrum of residential options they offered. (See Table 4.1 for descriptive information regarding the basic nature and specific characteristics of the participating facilities.)

Table 4.1: Description of Residential Facilities

Descriptor	Residential Facilities			
	A	B	C	D
Residential description	Retirement community	Retirement residence	Retirement community	Residential apartments
Established	1970/new	1964/converted single room occupancy hotel	1986/new	1987/new
Location	Suburban	Urban	Suburban	Suburban
Organizational status	Private/nonprofit	Private/nonprofit	Private/for profit	Private/nonprofit
Waiting list	Approximately 1 year	None	None	None
Levels of care/ Number of units	Independent(109) Asstd-independent(159) Nursing home(41) (Basic,skilled,special)	Asstd-independent(150) Basic nursing home(44)	Asstd-independent(144) Supportive(10)	Asstd-independent(48)
Total no. of units	309	194	154	48
Highest level of on-site care	Skilled NH care	Basic NH care	Supportive care Infirmary(temporary)	Asstd-independent
Affiliation with higher level care facilities	Life-care available on-site	None	None	Affiliated with adjacent skilled care NH
Cost/month (range for asstd-independent only)	\$766-\$1,350	\$710-\$1,533	\$1,195-\$2,065	\$950-\$1,550
No. of subjects in study	4	11	14	1

Facility A offered life care. Residential options consisted of independent apartments with additional assistance available by contract, assisted-independent residency with assistance included, both basic and skilled nursing home care, and a special nursing home unit for patients with Alzheimer's Disease.

Facility B offered assisted-independent residency subdivided into three levels varying by degree of assistance provided, and had a basic nursing home on-site.

Facility C offered assisted-independent residency, a more supportive level of care, with basic nursing assistance available if necessary, and an infirmary for temporary occupancy.

Facility D offered assisted-independent residency only and had an affiliation with an adjacent skilled nursing home.

Despite differences in the residential options available at each facility, study subjects were selected only from that level of residential care that most clearly agreed with the study's definition of an assisted-independent living environment. As previously defined, assisted-independent living is an organized residential environment that philosophically purports to encourage and promote maximum functional independence for residents and has one or more formal support services or facilities in place to address and meet this goal. All of the assisted-independent residences at the participating facilities far exceeded this basic definition, at least in terms of number and sophistication of available services.

Subjects in this study resided in private quarters with one or more rooms, usually equipped with arrangements for independent food preparation. All were receiving at least one daily meal in a communal setting; most received two meals or more. All received at least weekly housekeeping assistance. All subjects had access to on-site coin-operated laundry facilities, and half received regular laundry assistance.

All facilities had forms of emergency monitoring, usually including an emergency call system, with 24-hour nursing assistance available. All facilities had organized social activities programs. Two facilities had private scheduled transportation available. Two facilities had staff physicians on call; however, most facilities encouraged residents to arrange for private physician services. Two facilities had a full range of ancillary health care services available on-site by consultation or appointment. They usually consisted of pharmacy, podiatry, dental, ophthalmological, and physical therapy services.

In those facilities that contained higher levels of residential care, any resident could contract for expanded services or care options as required or desired.

Critique of Existing Life Event Instruments

Eight existing life event instruments have been comprehensively reviewed. They are the Holmes & Rahe (1967) Schedule of Recent Experiences (SRE); Sarason, Johnson, & Siegel (1978) Life Experiences Survey (LES); Dohrenwend, Krasnoff, Askenasy, &

Dohrenwend (1978) Peri Life Events Scale (PERI); Cochrane & Robertson (1973) Life Events Inventory (LEI); and life event instruments devised by Chiriboga (1977); Paykel, Prusoff, & Uhlenhuth (1971); Hough, Fairbank, & Garcia (1976); and Thoits (1981). None of the individual existing instruments reviewed was thought to be sufficiently applicable and appropriate to the population or purpose of this study. Their major limitations are contextual in nature and are presented in Figure 4.1.

Limitations

1. Incomplete content
2. Inappropriate content
3. Lack of item specificity

Figure 4.1: Limitations of existing life event instruments

In terms of incomplete content, none of the existing instruments reviewed included adequate representation of requisite categories and items pertinent to an elderly population. Notably absent were categories and items pertinent to functional health and related abilities. In terms of inappropriate content, the existing instruments often included items inappropriate or relatively inapplicable to an aging population, such as events related to childbearing and school career. Finally, in terms of item specificity, existing instruments often employed individual items that were believed to be too broad to be usefully incorporated into this study. This is exemplified by the single item often given as

"personal injury or illness." This item was further refined to include specific dimensions such as severity, chronicity, and type of illness or injury.

Due to these limitations, it was believed necessary to devise a new life event instrument more congruent with the relevant conceptual components of the concept of life events as expressed in this study and its purpose and population.

Procedures Used in Constructing the Life Event Instrument

Existing instruments were reviewed and their items categorized. Categories that were not congruent with those expressed in the conceptual definition of life events in Chapter I were deleted (see Figure 1.2). From this procedure, 10 basic categories emerged. These categories are shown in Figure 4.2.

Life events associated with:

1. Personal health
2. Health of significant others
3. Loss
4. Family relationships and activities
5. Social relationships and activities
6. Residence
7. Employment
8. Finances
9. Crime or legal concerns
10. Functional capabilities

Figure 4.2: Basic categories of life events.

Items in each of these categories were then systematically reviewed for appropriateness and applicability to the concepts, population, and purpose of the study at hand.

Development of Items

The majority of specific life event items included on the newly devised 76-item Gerontologic Life Event Checklist (GLEC) were derived from several other major life event instruments, with minor changes in wording for the purposes of increased clarity and applicability (56 items).

Thirty-four of these items came directly from the Life Experiences Survey (LES), an instrument devised by Sarason, Johnson, and Siegel (1978), itself based on Holmes and Rahe's (1967) Schedule of Recent Experiences (SRE). The LES items represent life changes believed to be frequently experienced by individuals in the general population and common in a wide variety of situations. All of the LES items were incorporated into the GLEC with the exception of those events believed to be frankly inconsistent with the conceptual definitions used in this study, inappropriate to the population or the purpose of this study, or those events that are clearly expressed more concisely or meaningfully on other instruments.

Eleven items on the GLEC were based on specific items on the Peri Life Events Scale (PERI) devised by Dohrenwend, Krasnoff, Askenasy, and Dohrenwend (1978), which was constructed by drawing on previous life event checklists, the researchers' own experiences, and their previous studies.

Eleven items on the GLEC were based on various other life event checklists. Included were three events from the Geriatric Social Readjustment Rating Scale (Armster & Krauss, 1974); two events from

the Life Events Inventory (Cochrane & Robertson, 1973); two events from the Life Events Questionnaire (Chiriboga, 1977); two events from an instrument devised by Paykel, Prusoff, & Uhlenhuth (1971); and two events from an instrument developed by Thoits (1981).

Twenty items on the GLEC were newly devised by the researcher. These events were devised to (a) increase specificity (six items; two related to degree of personal injury or ill health experienced, three related to the specific identity of family members who had experienced major health changes or had died, and one to specific living arrangements), and (b) to achieve a broader applicability of the instrument for an aging population (14 items; six related to functional abilities, three to spatial proximity of family and friends, three involving financial considerations, one related to potential sources of interruption of interpersonal relationships, and one related to previous residential satisfaction).

In summary, by reviewing a variety of existing life event instruments; by amending their content to increase comprehensiveness, appropriateness, and specificity; by using many common items; and by devising new items consistent with the conceptual framework and definitions employed in this study, the new Gerontologic Life Event Checklist (GLEC) was believed to provide a means for developing an enriched data base congruent with the population and purposes of the study at hand.

Instruments

The instruments specifically devised for use in this study are the Sociodemographic Descriptive Questionnaire (SDDQ) and the Gerontologic Life Event Checklist (GLEC).

The Sociodemographic Descriptive Questionnaire

The SDDQ is a 22-item questionnaire devised by the researcher (see Appendix A). The content consists of basic sociodemographic information, as well as specific items thought to pertain to several relevant descriptive characteristics such as type and nature of previous residence and in-home assistance, current physical health status, family contact, and functional abilities in terms of activities of daily living.

The Gerontologic Life Events Checklist

The GLEC is a 76-item questionnaire devised by the researcher (see Appendix B). The GLEC consists of two parts. Part I comprises a checklist of life events subdivided into 10 major life event categories. The categories are personal health, health of significant others, loss, family relationships and activities, social relationships and activities, residence, employment, finance, crime/legal issues, and functional capabilities.

At the end of each category, the respondent is asked to list any events in that category that occurred in the year preceding relocation that were not included. Additionally, at the conclusion of Part I of the GLEC, the respondent is again asked to list any

events that occurred in the year preceding relocation that were not included in any of the specific categories.

Part II of the GLEC asks the respondents to select those events that they consider to be the most important motivators to the relocation experience and to list them in declining order of importance.

Reliability and Validity of the GLEC

Reliability

Reliability, as applicable to measurement instruments, is defined as "the level of internal consistency or stability of the measuring device over time" (Borg & Gall, 1983, p. 281). Because of the disparate nature of life events, the presence or degree of internal consistency between items on a life event checklist is not applicable. Additionally, because the GLEC is a newly devised instrument, there is no information available relevant to its test-retest reliability, and no attempts were made to investigate this attribute.

The life event literature, however, did mention some potential difficulties related to life event measurement. Several authors alluded to limitations related to respondent reliability (Horowitz, Schaefer, Hiroto, Wilner, & Levin, 1977; Jenkins, Hurst, & Rose, 1979). These limitations have largely to do with the aspect of memory or respondents' ability to recall life events.

That subjects sometimes forget even major life events is known to occur (Horowitz et al., 1977); however, little is known regarding

the exact nature and extent of such memory lapses. Several factors have been implicated as particularly relevant to recall ability and the measurement of life events.

A study by Casey, Masuda, & Holmes (1967) found that the most significant single determinant affecting consistency of recall was saliency of life events as defined by the degree of change and adaptability required by the individual to meet the event in the life situation. These investigators found that consistency of recall correlated positively with saliency of life events and inferred that consistency of recall may directly reflect validity or accuracy of recall. Furthermore, they maintained that when related to increased saliency, the passage of time may not diminish consistency and accuracy of recall.

Another issue related to time passage and recall ability has to do specifically with the aging memory. Although it is difficult to generalize regarding memory capabilities in aging, one study based on 1,491 interviews with three age groups (under 60, to-69, and over 69) found no consistent age differences in memory performance (Accuracy of survey, 1987). Although other authors have agreed that some age differences do exist in memory performance (Huyck & Hoyer, 1982), the problem does not appear to relate to simple memory loss over time but rather to the process of information retrieval. According to Laurence (1967) and Huyck and Hoyer (1982), age-related memory deficit can be substantially reduced by providing more retrieval information as in cued-recall conditions. Horowitz et al. (1977) provided a practical prescription for minimizing the effects

of forgetting: "The effects of forgetting can be partially reduced with a questionnaire where items are grouped by logical sets so that they tend to prime memory" (p. 425).

Casey, Masuda, and Holmes (1967) also found that item construction had a significant effect on consistency and accuracy of recall. The use of double statements or posing more than one question in an item, and the use in specific items of the adjective qualifier "substantial" to indicate magnitude of change were associated with a significant reduction in response consistency. Interestingly, other qualifying adjectives used to express magnitude, such as major/minor, a lot more/a lot less, and unusual/close/special, did not significantly reduce response consistency.

The period of recall for life events specified in this study is 1 year preceding relocation, with the relocation occurring within the preceding 6 months. Several factors, based on the review of relevant literature, support this time frame:

1. General consistency and accuracy of recall have not been shown to deteriorate significantly over time.
2. Saliency of life events has been shown to relate positively to recall consistency and accuracy. In this study, saliency of life events was presumed to be high, particularly since the outcome experience of relocation is one usually associated with an extreme degree of change in usual life patterns and high adaptational requirements.

3. Mechanisms have been built into the life event instrument known to positively influence recall consistency and accuracy that are particularly sensitive to an aging population, specifically, the categorized grouping of life events and appropriate wording of items.

4. The period of 1 year has commonly been used in the literature for the recall of life events and may justifiably be construed as standard practice. Additionally, the period of 1 full year was believed to be easier to conceptualize, delimit, and relate to mentally than some fraction of that time.

Validity

Validity of a measurement instrument is defined as "the degree to which a test measures what it purports to measure" (Borg & Gall, 1983, p. 275). Four major kinds of validity may be distinguished pertinent to measurement instruments, although their relevance and application may vary according to the expressed purpose of the research study. They are content validity, construct validity, criterion validity both concurrent and predictive (LoBiondo-Wood & Haber, 1986), and face validity (Borg & Gall, 1983).

In this study, the GLEC was devised and used for purely descriptive purposes. It was intended to elicit clear information regarding the occurrence of relatively discrete events in time. Because this use of the GLEC was solely descriptive and not intended to measure, refine, or be compared with any other theoretical construct or trait, the only types of validity important to

establish for the GLEC in accord with the purposes of this study were content and face validity.

Content validity may be achieved by systematically conducting a set of operations such as defining in precise terms the specific content universe to be sampled, specifying outcomes, and describing how the content universe will be sampled to develop test items (Borg & Gall, 1983).

Regarding the conceptual definition of life events as used in this study, the basic categories of life events were given in Chapter I (see Figure 1.2). These basic categories of life events were derived by a systematic and in-depth review of the life event literature, specifically that work relevant to the goal of comprehensively sampling a universe of content or global population of life events. The first objective was to derive a comprehensive sample of events to be included on the GLEC consistent with the research efforts by experts in the field. The second objective was to further refine this sample of events by adding or deleting items consistent with expert opinion regarding event relevance in terms of an aging population. In this regard, consideration was given to a well-recognized and accepted list of tasks in the human development of older adults as presented in Chapter I (Havighurst, 1972; cited in Huyck & Hoyer, 1982) (see Figure 1.1).

It is believed that the resultant categories used in the construction of the GLEC, and the specific life event items that appear within them, are consistent and congruent with expert opinion derived through literature review. By virtue of this review and the

guidance it offered in the construction of the GLEC instrument, it is believed that the GLEC has attained acceptable levels of both content and related face validity.

Pilot Testing of Instruments

The SDDQ and the GLEC were pilot tested by the researcher for readability and comprehension with four residents of the participating facility from which the majority of study subjects emanated (Facility C). These residents were selected for the pilot group by the director of the facility and were alert, oriented, and over 55 years of age. They were not included as subjects in the study.

Two types of administrative formats were tested during piloting. Interviewed separately, and after appropriate introduction, explanation, and instruction, two subjects were asked to read and answer the questionnaires, working at their own pace, with the interviewer in attendance to answer questions. Two subjects were asked to respond verbally to the questionnaires as read to them by the interviewer. Results indicated that due to the length of the questionnaires, with some amount of repetitious printed instruction, the complexity involved with selecting and prioritizing life events as potential motivators, and the incidence of compromised vision and writing abilities, it was found that for purposes of comprehension and expediency the best method for administering the questionnaires was an interview style, with items read to the respondents and recorded by the interviewer.

Based on pilot testing the results and actual study administration, the average time for completion of the questionnaires was found to be less than 1 hour.

Data-Collection Procedures

The participating facilities provided the researcher with lists of all residents who had relocated into the facility within the preceding 6 months from independent living environments. A letter was sent to each of these residents, introducing and explaining the study. Subsequently, each resident was contacted personally and, if he/she was willing to participate, an appointment was made for the interview. Of the total 45 individuals contacted by the researcher, 30 agreed to participate, 11 refused, 3 were found to be ineligible, and 1 later declined to participate due to onset of illness.

In the resident's quarters or another private, quiet, well-lighted and comfortable area, the researcher explained the study on a one-to-one basis, obtained informed consent, and administered Part I of the SDDQ (Determinants of Eligibility). Based on responses to these select items, eligibility for participation in the study was determined by criteria previously defined, and, if eligible, the respondent was assigned an identification number and the remainder of the data collection ensued. The respondents were asked to hold any questions that did not relate specifically to the measurement instruments or testing procedure until after completion of the instruments. It was recognized that reassurance or guidance to the respondent regarding previous life events, perceived motivating life

events, or the relocation experience could have biased the study results.

The interview was concluded with the issue of assured confidentiality again addressed with each respondent individually. Appreciation was expressed for their participation, and the means explained for establishing contact with the researcher if the respondent desired to receive information regarding the results of the study or had any questions or concerns regarding participation in the study in the future. A self-addressed postcard with the researcher's name and address was left with each respondent.

Data Analysis

Scoring

The SDDQ contains items regarding the sociodemographic characteristics of respondents believed to be particularly pertinent to this study. The level of measurement employed is primarily nominal, with several descriptive categories employing ordinal and interval levels of measurement. Accordingly, while numbers assigned to nominal categories are essentially arbitrary, scoring reflects the ordinal and/or interval nature of some of the scales.

The GLEC has two parts. Part I of the GLEC consists of 76 items representing specific life events. Each item is assigned an identifying number and has two response categories. These categories are scored by assigning a 0 to indicate absence and a 1 to indicate presence of the life event. Additionally, Part I of the GLEC offers the respondent opportunities to write in specific life

events not included on the instrument. For each additional life event, a new variable is created and coded in the same manner.

Part II of the GLEC consists of five potential responses representing those life events that respondents consider to be the most important motivators to relocation and asks respondents to list them in declining order of importance. A separate variable is created and coded for each like event and its specific rank order.

In addition to the two questionnaires, this study employed an Interview Assessment completed on each respondent by the interviewer (see Appendix C). This assessment was hand tabulated, and results are presented in Chapter V. Data derived from this assessment are believed to be useful by (a) generally assessing the mental status and capabilities of the respondents; (b) indicating strengths and weaknesses of the instruments, indirectly providing a means by which to assess their content validity; and (c) providing an additional framework for the subsequent interpretation of results and their implications.

Data-Analysis Techniques

The data from the SDDQ served one basic purpose, to summarily describe the sample. Simple comparative inspection of raw data and several measures of central tendency were used to accomplish this.

On the GLEC, while presence or absence of a life event is a nominal variable, specific life events and major life event categories were cumulatively totaled, with additional consideration given to their respective frequencies and rank ordering.

The analysis of life events as motivators to relocation was accomplished primarily by their rank ordering in terms of frequency and their relative importance as indicated by the respondents. A correlation coefficient was generated to compare the average rank order and weighted response frequency of motivating life events.

Had the number of respondents been larger, several other techniques could have been undertaken. Identification of typical clusters and patterns of life events using correlation matrices and factor analysis would have been appropriate. Additionally, correlational analyses including regression analysis and analysis of variance could have been undertaken to see if life event frequencies, patterns, or clusters varied systematically with the sociodemographic characteristics of respondents. These techniques, however, are not believed to be appropriate with the sample size in the present study and must await other research efforts of considerable larger scope.

Protection of Human Subjects

Protection of the participants' rights throughout the entirety of the study was mandatory. Specific guidelines regarding participants' rights were adhered to in order to assure complete confidentiality. In this study, the rights of the participants were protected by (a) obtaining witnessed informed consent from each participant; (b) assuring privacy, complete confidentiality, and freedom from harm; and (c) submitting the research proposal to the

University Committee on Research Involving Human Subjects (UCRIHS) and receiving their approval.

The records that were kept on each participant were confidential, and only the researcher had access to them. All subjects received an identification number and at each step of the research process were referred to by identification number alone. Proper names were used only in the initial stage of potential participant contact. The researcher alone had access to them, and this information was destroyed at the conclusion of the data collection.

Summary

The methods that were employed and the procedures that were instituted were discussed in order to accomplish a study to describe the life events that preceded relocation by elderly individuals from independent living into assisted-independent living environments, and, further, to identify and describe those select life events self-perceived as potential motivators to the relocation experience. The data-collection instruments, procedures, and data-analysis techniques were presented.

In the following chapter, the data are presented, analyzed, and discussed.

CHAPTER V

DATA PRESENTATION AND ANALYSIS OF RESULTS

Overview

The content of this chapter includes study findings and analysis of results. Also included is a section of additional findings related to results obtained by the Interview Assessment and observations regarding instrument content.

Study Findings and Analysis of Results

This study is descriptive and contains survey data from 30 respondents. The study was conducted over a 2-month period from January 1, 1989, to March 1, 1989, in the urban and suburban environs of a moderately sized city in the Midwest. Findings and related analyses are organized and presented according to the research questions posed in this study.

Descriptive Characteristics of the Sample

The first research question in this study focuses on the descriptive characteristics of the sample. Basic sociodemographic information is summarized in Table 5.1. Complete sociodemographic descriptive data can be found in Appendix A.

All subjects in this sample were Caucasian. There were 21 females and 9 males ranging in age from 69 to 95 years. The mean

from 75 to 90 years, with mean age of 81.95 years. Males ranged in age from 69 to 95 years, with mean age of 85.22 years.

Table 5.1: Summary of Basic Sociodemographic Information

AGE		
Range		69-95 years
Mean		82.93 years
MARITAL STATUS		
Single/never married		2
Married/living with spouse		10
Married/not living with spouse		3
Widowed		15
EDUCATION		
< High school		7
High school		6
> High school		17
Some college	4	
College graduate	10	
Advanced college degree	1	
Technical school	2	
RELIGION		
Protestant		23
Catholic		4
Jewish		2
No preference		1
EMPLOYMENT		
Employed		0
Retired		29

Eight subjects were entered in the study as dyads (4 married couples). Fifteen subjects were widowed, 10 were married and living with spouse, 3 were married and not living with spouse, and 2 were never married. Of the 9 males entered in the study, 6 were married.

Of these, 5 were living with their spouses. Three males were widowed.

Seventeen subjects were educated beyond high school, 6 were high school graduates, 1 reported some high school, 6 reported junior high school, and 1 reported no education past elementary school. In summary, 23 subjects or 77% had some high school education or beyond.

In the sample, 22 subjects were Protestant, 5 Catholic, 2 Jewish, and 1 reported no religious preference. No subjects reported current employment, 29 reported said they were retired, and 1 reported volunteer work. The majority of subjects refused to give financial information; therefore, it was not possible to describe current income.

Regarding prior residential status, 17 subjects were previously private homeowners, 11 were apartment dwellers, 1 was an occupant in a private home, and 1 previously resided in a mobile home. The majority of subjects were receiving some type of regular in-home assistance before relocation ($N = 25$). Table 5.2 presents the five major areas of prior in-home assistance.

Table 5.2: Type of Regular Prior In-Home Assistance

Type of Assistance	Number of Subjects
Laundry/housekeeping	20
Transportation	12
Food preparation/provision	9
Personal care/spouse	3
Finances	3

Regarding health status, 17 subjects perceived themselves in better health than others of their own age, 12 the same, and 1 worse. The majority of subjects ($N = 18$) reported no hospitalizations in the past year. Eight subjects reported one hospitalization, 4 reported two hospitalizations, and none reported more than two hospitalizations in the past year. The mean number of hospitalizations per subject was 0.5. Twenty-nine subjects reported the presence of chronic disease. The mean number of chronic illnesses or conditions per subject was 3.73, and the frequency ranged from 1 to 8. The five most frequently reported chronic illnesses or conditions were joint problems (primarily arthritis, $N = 21$ or 70.0%), followed by vision problems ($N = 15$ or 50.0%), hypertension ($N = 13$ or 43.0%), heart problems ($N = 11$ or 37.0%), and gastrointestinal problems ($N = 8$ or 27.0%). The remaining types of specific chronic diseases were reported by less than 17.0% or 5 or fewer subjects.

Regarding the amount of contact with children or other family members since relocation, approximately half or 14 subjects reported more contact, 13 the same amount, and 3 less family contact.

Regarding functional capabilities, 24 subjects (80.0%) were completely independent in ADL activities. In current IADL capabilities, 7 subjects (23.3%) were completely independent. Table 5.3 summarizes current levels of functional capabilities in select ADL and IADL tasks.

Table 5.3: Current Functional Capabilities in Select ADL and IADL Areas

	Number of Subjects		
	Independent	Assisted	Dependent
ADL Areas			
Walking	29	1	0
Bathing	25	5	0
Grooming	28	0	2
Toileting	30	0	0
Dressing	28	2	0
Eating	30	0	0
IADL Areas			
Food preparation/provision	14	8	8
Laundry/housekeeping	14	11	5
Transportation	14	1	15
Financial affairs	20	6	4

Discussion of descriptive characteristics. The majority of subjects in this study had exceeded their life expectancy (National Center for Health Statistics, 1979) and were in an age bracket defined as "old-old" or 81 to 90 years (Randall, 1977, p. 6). In other studies reviewed that described actual or potential relocators to assisted-independent residences, the mean age of subjects was considerably lower, never exceeding the seventh decade (Beaver, 1979; Blonsky, 1975; Brody, Kleban, & Liebowitz, 1975; Carp, 1975a, 1975b, 1977; Carp & Christensen, 1986; Lawton & Cohen, 1974; Nelson & Winter, 1975).

The proportion of male respondents in this study was somewhat higher than expected. In the 80-85 year age group, the usual male to female ratio is approximately 1.0 to 1.9 (Ham, 1987), contrasted

with the ratio in this study of 1.0 to 2.3. Approximately half of the respondents in this study were widowed. Including consideration for gender, this finding is relatively consistent with common descriptions of marital status in the older population at large (Huyck & Hoyer, 1982).

Subjects in this study tended to be considerably more educated than the older population in general. According to the U.S. Bureau of the Census (1987), approximately 23% of persons over 55 had obtained a level of education that included some college or were college graduates. In this sample, approximately 57% had attained this level. All subjects in this study were retired from formal employment. Income data were inconclusive, with the majority of subjects unwilling or unable to give financial information.

In terms of prior residence, approximately half of the sample had experienced an interim step often viewed as customary on the residential continuum for aging adults, or the move from private homes to smaller units, usually rented. The majority of subjects had been receiving regular in-home assistance before relocation. The major types of assistance correlated with those currently received in the assisted-independent living environment.

Subjects in this study tended to have fewer chronic health conditions than average (Beeson, 1979). The most frequent types of chronic disease were consistent with those most often encountered in the elderly population at large (Ham, 1983). Self-ratings of health were high, and the majority of respondents indicated no hospitalizations in the preceding year.

The majority of subjects reported an increase in family contact since relocation. This finding suggests the presence of a potential migratory trend. Some older relocators may move to be closer in geographical proximity to their children or other family members.

Overall, subjects in this study were highly independent in ADL tasks, yet somewhat compromised in terms of IADL performance. The major areas of IADL dependency related to transportation, food preparation/provision, and laundry/housekeeping, with over half of the sample partially or completely dependent in these areas.

Frequency of Prior Life Events

The second research question in this study focuses on life events that had transpired in the year before relocation. The Gerontologic Life Event Checklist (GLEC) contains 76 items organized in 10 major life event categories. (See Figure 5.1.)

1. Personal health
2. Health of significant others
3. Loss
4. Family relationships/activities
5. Social relationships/activities
6. Residence
7. Employment
8. Finances
9. Crime/legal
10. Functional capabilities

Figure 5.1: The 10 major life event categories.

"Employment" is the only category in which no events were indicated. "Functional capabilities" is the only category in which all events were indicated. In the entire sample, the total number of life events reported was 218. Thirty-four items on the GLEC were

not indicated by any subject. The number of life events indicated per subject ranged from 3 to 14. The mean number of life events per subject was 7.27 (standard deviation = 2.75).

The frequency of life events in major categories is summarized in Table 5.4. Events related to personal health clearly dominate in frequency of response and in the number of respondents reporting events in this category. Events related to health of significant others, social relationships/activities, residence, functional capabilities, and family relationships/activities were highly similar in response frequency. Events related to loss, crime/legal concerns, and finances were comparatively infrequent. (See Appendix B for comprehensive presentation of specific life event data.)

Discussion of frequency of prior life events. Life events occurred in three distinct levels of frequency. The first level contained events related to personal health. Clearly, in a select population of elderly relocators to assisted-independent residency, prior life events related to personal health are the most prominent in several ways: The most frequently cited events appear in this category; it contained the highest percentage of respondents indicating events; and accordingly, it had the highest mean number of events per respondent. In terms of specific events in this major category, more than two-thirds of the responses (22) indicated the occurrence of major and/or serious illnesses or injuries.

The second distinct level of response frequency contains a constellation of five major life event categories, sharing relatively homogeneous frequency rates (health of significant

Table 5.4: Summary of Frequency of Life Events in Major Categories Per Overall Response and Per Respondent

Level of Response Frequency	Major Category of Life Events	Number/Percent of Responses (N = 218)	Mean Number of Life Events Per Respondent	Number/Percent of Respondents Reporting Events (N = 30)
Level 1	Personal health	62 (28.4%)	2.07	27 (90.0%)
Level 2	Health of significant others	31 (14.2%)	1.03	19 (63.3%)
	Social relationships/activities	30 (13.8%)	1.00	19 (63.3%)
	Residence	29 (13.3%)	0.97	19 (63.3%)
	Functional capabilities	27 (12.4%)	0.90	16 (53.3%)
Level 3	Family relationships/activities	23 (10.6%)	0.76	16 (53.3%)
	Loss	9 (4.1%)	0.30	7 (23.3%)
	Crime/legal	4 (1.8%)	0.13	4 (13.3%)
	Finances	3 (1.4%)	0.10	3 (10.0%)

others, social relationships/activities, residence, functional capabilities, and family relationships/activities). In the category of health of significant others, the majority of respondents reported change in health of spouse as the most frequently occurring event ($N = 10$ or 30.0%). Of the 13 married individuals in this study, 78.0% reported that this event had occurred in the past year. Not unexpectedly in this age group, health changes among other members of their cohort were most frequently indicated overall.

In the category of social relationships/activities, the majority of responses clustered in two specific events, both somewhat related: decreased participation in usual social activities/recreation ($N = 12$ or 40.0%), and the inability to take a planned vacation or long trip ($N = 10$ or 30.0%). Discontinuance of driving or loss of usual source of transportation was also reported relatively frequently ($N = 6$ or 20.0%).

In the category of residence, "increase in home maintenance costs" was reported most frequently ($N = 12$ or 40.0%); however, respondents tended to include increases commonly encountered across many adult age groups. The second most frequently cited event was "dissatisfaction or difficulties with prior residence" ($N = 10$ or 30.0%). Many items that reflect a degree of residential instability were not indicated, such as inability to move after expecting to be able to move, decline in value or condition of residence/property, problems finding a new residence, home lost through disaster, and homelessness.

In the category of life events related to functional capabilities, the most frequently reported event was "episodes of inability to manage outside activities" ($N = 10$ or 30.0%), followed by events related to inability to care for self and to manage in-home activities ($N = 7$ or 23.3% each).

In the category of family relationships/activities, the most frequently cited event was "major disruption/trouble in the life of a close family member" ($N = 7$ or 23.3%). Notably absent in this category were life events that suggested a degree of instability in close personal relationships. Events of marriage, beginning to live with someone, divorce, and reconciliation were not indicated by any respondent.

The third level of response frequency contains three major life event categories, with events in these categories indicated least frequently (loss, crime/legal concerns, and finances). In the major category of loss, the death of contemporaries or close friends was indicated most frequently ($N = 5$ or 16.7%). Spousal loss, however, was indicated by only one subject. Death of spouse, primarily experienced by women ($N = 12$), appeared to have transpired prior to the year before relocation, since 15 subjects reported that they were widowed (Table 5.1). This finding suggests that adjustment to this major loss presumably does not inherently prompt relocation. Loss of parents was not an issue in this age group. Although changes in health of children were encountered, loss of children was not, which reasonably reflects the probable age range in this group.

Life events in the major category of crime/legal concerns were indicated by relatively few subjects ($N = 4$ or 13.3%) and consisted of two basic kinds of events (robbery and presence of intruders, $N = 2$ each). The inclination to seek safe residence has been shown to be an important consideration for elderly relocators (Beaver, 1979); however, concern about the incidence of crime, at least in this sample, was not highly significant. This finding suggests that the majority of subjects in this study had relocated from residential environments largely perceived as safe. Events related to finances occurred least frequently overall, with only 3 respondents reporting events in this category.

In summary, prior life events that occurred in the lives of the elderly relocators in this sample suggest a distinct ordering in terms of frequency. Events related to personal health were clearly in the majority, followed by events in the major categories of health of significant others, social relationships/activities, residence, functional capabilities, and family relationships/activities, all reported with relatively similar frequency. Notably infrequent were events related to loss, crime/legal concerns, and finances. Whether these findings, while generally meaningful, correlate with prior life events given as potential motivators to relocation is discussed in the next section.

Prior Life Events Perceived as Motivators to Relocation

The last research question in this study focuses on those prior life events perceived as motivators to relocation. Subjects were

asked to select and prioritize up to five life events appraised as motivators. Three basic analytical strategies were employed to analyze these data. The first strategy involved simple description of the overall frequency of motivating life events reported in major categories. Because various numbers of motivating life events were reported, the second analytical strategy was to enumerate motivating life events reported per respondent. The last analytical strategy was to analyze rank orders of motivating life events. To accomplish this, three statistical techniques were employed:

1. The generation of an order based on average rank alone, to establish the relative importance of motivating life events in each category to respondents overall.

2. The generation of an order based on average rank and frequency combined, to establish the relative frequency of motivating life events in each category as related to their importance.

3. The generation of a correlation coefficient to compare these two orders, and to establish the direction and significance of the relationship between them.

Results obtained by applying these strategies are presented and discussed in the following sections.

Frequency of motivating life events. Table 5.5 summarizes the five most frequent major categories of motivating life events. Motivating life events related to personal health occurred most frequently ($N = 29$). In this category, "major personal illness" was most frequently described as a motivator ($N = 8$). Motivating life events related to residence and functional capabilities ($N = 14$

each) shared second place in terms of frequency, and those related to health of significant others and social relationships/activities ($N = 9$ each) shared the least frequent position. Other motivating life events not depicted were reported infrequently: crime/legal ($N = 2$), family relationships/activities ($N = 1$), and loss events ($N = 1$).

Table 5.5: Frequency of Motivating Life Events Per Major Category

Major Category	Frequency
Personal health	29
Residence	14
Functional capabilities	14
Health of significant others	9
Social relationships/activities	9

The five most frequent categories of prior life events that occurred in general (Table 5.4), and the five most frequent categories of life events perceived as motivators, were identical. This similarity suggests that the most frequently occurring life events are also likely to be motivators to relocation.

Number of motivating life events reported per respondent. Of all life events that were reported on the GLEC (47/76), approximately half (23/47 or 49%) were reported as motivators to relocation. All major life event categories were represented except finance and employment.

The number of motivating life events reported per respondent ranged from none to five. Figure 5.1 summarizes the number of motivating life events reported per respondent.

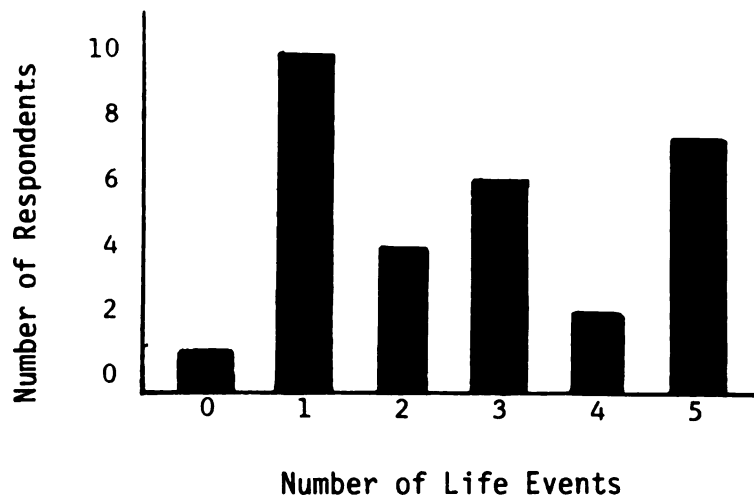


Figure 5.2: Number of motivating life events reported per respondent.

As depicted, complete absence of motivating life events was indicated by only one subject. The largest number of respondents ($N = 10$ or 30.0%) indicated only one motivating life event. This finding suggests possible isolation of trigger events to relocation. Of those events reported as solitary motivators, the most frequent related to personal health ($N = 5$). At the other extreme, the next largest number of respondents ($N = 7$) reported the maximum number of five motivating life events. This finding suggests that for a significant number of individuals (23.3%), relocation may be influenced by multiple life events.

Importance of life events as motivators to relocation.

Subjects were asked not only to identify life events perceived as motivators to relocation, but to rank these events according to their relative importance. At this point, analyses of rank orders were undertaken. The data on which these analyses are based appear in Table 5.6. This table depicts the frequency with which life events in each major category were cited among the five rank orders.

Table 5.6: Frequency of Life Events Ranked in Order of Importance as Motivators to Relocation

Major Category	Rank Order				
	1	2	3	4	5
Personal health	11	9	3	3	3
Residence	6	5	2	0	1
Functional capabilities	1	3	4	4	2
Health of significant others	7	1	1	0	0
Social relationships/activities	1	1	4	2	1

As depicted, life events related to personal health were cited most frequently as the most important motivators to relocation ($N = 11$), followed by events related to health of significant others ($N = 7$) and events related to residence ($N = 6$). However, in order to more fully appreciate the extent of the impact that select life events exert on individuals' motivation to relocate, three specific statistical techniques, as alluded to earlier, were employed to

further refine these data. Each technique is explained below, results presented, and finally discussed in summary.

Technique 1: To determine the relative importance of each category of motivating life events to respondents overall, an order based on average rank was established. This order was calculated by multiplying the frequency of each event in each rank (Table 5.6) by its corresponding rank position (highest rank accorded a 5, and lowest rank accorded a 1), and dividing by the corresponding total frequency of rankings (Table 5.5). This formula is summarized:

$$\text{Average rank} = \frac{\text{Frequency of rank} \times \text{Rank position}}{\text{Total frequency of rankings}}$$

In descending order of importance, the major categories of motivating life events based on average rank are presented in Table 5.7.

Table 5.7: Order of Major Categories of Motivating Life Events, Based on Average Rank

Major Categories of Motivating Life Events	Average Rank
Loss	5.0
Family relationships/activities	5.0
Health of significant others	4.7
Residence	4.1
Crime/legal	4.0
Personal health	3.8
Social relationships/activities	2.9
Functional capabilities	2.8

This order, based on average rank importance, suggests that life events in certain categories, independent of their frequency of occurrence, rank very highly as motivators to relocation when they occur, e.g., events related to loss and family relationships/activities.

Technique 2: The second technique used to further analyze data related to the impact of life events on individuals' motivation to relocate involved establishing another order of motivating life events, which accounted for average rank importance and frequency combined. This order was calculated by multiplying the average rank order (Table 5.7) by the corresponding frequency of rankings in each category (Table 5.5). This formula is summarized:

$$\begin{array}{l} \text{Average rank} \\ + \text{ frequency} \end{array} = \text{Average rank order} \times \text{Total frequency of rankings}$$

In descending order of importance, the major categories of motivating life events, based on average rank and frequency combined, are presented in Table 5.8.

This order, based on average rank and frequency combined, suggests that certain categories of life events are important because they are found to contain frequent motivators to relocation. This order is also highly consistent with other indications of frequently occurring prior life events in general and as frequent motivators to relocation overall.

**Table 5.8: Order of Major Categories of Motivating Life Events,
Based on Average Rank and Frequency Combined**

Major Categories of Motivating Life Events	Average Rank Plus Frequency
Personal health	110.2
Residence	57.4
Health of significant others	42.3
Functional capabilities	39.2
Social relationships/activities	26.1
Crime/legal	8.0
Family relationships/activities	5.0
Loss	5.0

Technique 3: The last technique used to complete the analysis of data related to the impact of life events on individuals' motivation to relocate involved generating a correlation coefficient to analyze the direction and strength of the relationship between the orders of motivating life events based on average rank alone and average rank combined with frequency. The Pearson correlation coefficient was found to be $-.45$.

This finding supports the supposition that, on average, there is a tendency for those motivating life events that have been mentioned relatively infrequently to occupy higher rank positions, and for those motivating life events that have been frequently mentioned to occupy relatively lower rank positions. This trend has significant implications for health care professionals who need to recognize that events related to personal health are frequently reported as motivators to relocation. However, other life events,

particularly those related to loss and family relationships/activities, although distinctly less frequent, often occupy the highest ranking positions as motivators to relocation and are thus highly important to individuals when they do occur. These implications are discussed further in Chapter VI.

Additional Findings

Additional findings were obtained from the Interview Assessment completed by the interviewer on each respondent. (See Appendix C for comprehensive presentation of data elicited by this instrument.) In the vast majority of interviews, no major difficulties or unusual situations were encountered. Occasional minor difficulties occurred, primarily related to communication problems, but did not seem to compromise the accuracy of subjects' responses. In summary, in the vast majority of interviews, respondent behavior appeared appropriate, objective and subjective information seemed reliable, and reactions to the interview process were extensively positive.

The Interview Assessment also elicited specific information related to the content of the questionnaires. This information is presented and discussed in the following section.

Observations Related to Content of Instruments

In the Interview Assessment, a systematic collection of comments was undertaken to evaluate and potentially improve the instruments used in this study. In the main, the instruments seemed readily understandable to the majority of subjects. The instruments required an 11th-grade level of reading ability (U.S. Department of

Health and Human Services, 1984), and more than three-fourths of the study respondents had achieved this educational level.

The Sociodemographic Descriptive Questionnaire (SDDQ) seemed adequate for obtaining data related to basic sample characteristics. Suggestions for improvement primarily relate to:

1. Extending financial information to include perceptions of appropriateness and affordability of the assisted-independent residence.

2. Confining information related to types of prior in-home assistance to the previous year, thereby eliminating long-standing sources more associated with customary life style than current functional capability.

3. Extending information related to family contact to include the effect of relocation on proximity to family.

4. Refining items related to current functional capabilities to minimize confounding with services inherent in the assisted-independent environment.

The Gerontologic Life Event Checklist (GLEC) seemed comprehensive, as indicated by the relatively infrequent incidence of respondents spontaneously writing in events not included on the inventory. Organizing life events into major categories appeared to assist recall and facilitate a more comprehensive review of past events.

Distinct difficulties emerged, however, when respondents were asked to identify and prioritize motivating life events. While

one-half of all respondents believed that the occurrence of prior life events adequately captured their primary motivation for relocating, an equal number did not. Respondents often alluded to motivation to relocate as a process, influenced by a combination or compilation of factors, and therefore isolation and prioritization of discrete events was difficult due to this quality of interrelatedness. Some motivational factors resided outside the realm of prior life events, with the impact of family input on motivation to relocate implicated most often. While this information was not gathered in the formal data collection, its relevance to the basic area of study cannot be ignored or minimized, and will be discussed further in relation to recommendations for future research.

Summary

In summary of the most pertinent sociodemographic descriptors, mean age was extremely high; marital status and gender ratio were generally representative; levels of education, health, and basic functional capabilities were high; performance in select areas of instrumental activities was compromised; and patterns of family contact suggested that relocation often signified a move closer in proximity to family.

In terms of prior life events, events related to personal health occurred most frequently, followed by events in five diverse categories clustered by similar frequency (health of significant others, social relationships/activities, residence, functional

capabilities, and family relationships/activities). Events related to loss, crime/legal concerns, and finances occurred least frequently.

In terms of life events reported as motivators to relocation, events related to personal health clearly dominated in several ways. They were most frequent overall and as the most frequent potential trigger events or those reported by the majority of subjects as solitary motivators. When analyzed by average rank and frequency combined, they appeared as the most highly prioritized. However, when motivating life events were analyzed by average rank alone, a distinctly different order emerged, with events related to loss and family relationships/activities predominating. A correlation coefficient was generated between these different rankings and suggested that while motivating life events related to personal health occurred with much higher frequency, relatively infrequent motivators such as events related to loss and family relationships/activities were very highly ranked when they did occur.

Additional findings suggested the presence of motivators to relocation outside the concept of prior life events. Also, a significant number of respondents alluded to the relocation experience as a process that often involved an interrelated combination or compilation of factors or events.

Finally, while the descriptive approach and exploratory nature of this study precluded the use of a testable hypothesis, results supported the supposition that the occurrence of prior life events

is often and significantly related to the act of relocation by elderly individuals from independent to assisted-independent living environments, and that specific life events can be identified and defined as motivators to this type of relocation.

CHAPTER VI

CONCLUSIONS AND SUMMARY

Overview

The purpose of this chapter is to present (a) conclusions that have been derived from the research, (b) recommendations for nursing practice and future research based on these conclusions, and (c) summary statements regarding study contributions.

Description and Purpose of Study

A descriptive survey study of 30 elderly individuals who had recently relocated from independent to assisted-independent living environments was completed. Subjects in this study had relocated within the previous 6 months. The study was conducted at four facilities in the Midwest that offered this residential option.

The purpose of the study was to describe the characteristics of relocators, the life events that preceded relocation, and those events identified as motivators to relocation. The idea for this study emanated from the researcher's interest in factors that motivate an older adult to leave independent residence and seek formal assistance in daily living. While options in assisted-independent living are becoming increasingly available to older adults, the reasons why individuals select this environment remain largely unexplored in the literature.

Conclusions

The following major conclusions have been formulated based on the purposes and findings of this study. Because this study described a small nonrandom sample, any conclusions or implications are tentative due to sample size and sampling technique.

In a sample of elderly individuals who have recently relocated from independent to assisted-independent living environments:

1. The majority of relocators could identify specific motivating life events, and many described one major trigger event most frequently related to personal health.

2. Two different rankings of motivating life events were apparent: events that were highly ranked though relatively infrequent, and those that were more frequent though ranked comparatively lower.

3. The motivation to relocate was often perceived as a process influenced by the cumulative impact of multiple and interrelated factors or events.

Additionally, findings in this study inform issues related to the advanced practice of specialized nursing, support the use of a conceptual framework that explores relocation from a stress/adaptation perspective using the concept of life events, and indicate the clear necessity for further study and suggest possible directions for future research.

Recommendations for Nursing Practice

Recommendations for nursing practice primarily relate to the expanded role of the advanced and specialized nursing practitioner, the Gerontologic Clinical Nurse Specialist (GCNS). The GCNS has in-depth knowledge regarding the needs and related care required by older adults, and can be expected to employ this knowledge from a unique and highly specialized perspective.

Nursing recommendations are organized and presented in three basic areas (see Figure 6.1). This section concludes with implications specific to nursing education.

1. Theoretical basis for practice
2. Assessment issues
3. Role characteristics

Figure 6.1: Areas of recommendations for advanced nursing practice.

Theoretical Basis for Practice

By using an organizing conceptual framework, the advanced nursing practitioner gains an understanding for the entirety of a phenomenon, an appreciation for causality, and the potential for control of outcomes. The GCNS uses conceptual guidelines to direct and evaluate nursing practice, and applies information from practice to test and extend conceptual schemes.

Because the conceptual framework used to organize this study problem included basic concepts such as age and life course position and individual or situational mediating variables, and incorporated

specific constructs that acknowledge basic domains of human behavior, it addresses the holistic and individualistic perspective consistent with advanced nursing practice. Its adaptational perspective facilitates recognition of various critical times when assessment and therapeutic interventions may occur. The role that life events and related issues play in the lives of older adults can be anticipated, interventions planned and implemented, and related outcomes evaluated from both practical and theoretical perspectives.

Because this research was essentially exploratory, the use of a conceptual framework more descriptive in nature was appropriate. Predictably, however, this perspective does not facilitate generation of specific interventions, particularly those related to the practice of nursing. As empirical results begin to accumulate and basic concepts germane to the study of living environments of older adults are expanded and refined, a more prescriptive theoretical base specific to nursing practice might prove beneficial. For example, the Roy Adaptation Model of nursing (Roy & Roberts, 1981) contains central concepts such as adaptation and environment, and includes constructs such as stress and coping, with specific consideration for the position of the individual on the health-illness continuum. Embedded in the discipline of nursing, this theory proposes interventions specific to nursing activity that could be productively applied to this area of study.

However, the bridge from theory to practice must be carefully built. The necessity for basic descriptive data that support it is

clear. Theory evolution may be best served, at least initially, by the use of descriptive conceptual frameworks such as the one employed in this study, to derive a comprehensive data base as a source from which testable hypotheses may emerge.

Assessment Issues

The GCNS is often involved at points in the management of care of older adults when concerns related to environmental adequacy arise. The GCNS engages the nursing process by initially collecting assessment data. By generating a constellation of client-perceived motivators to relocation from independent to assisted-independent living environments, findings in this study inform nursing assessment for phenomena thought to predispose to this outcome, and facilitate anticipation of problems that aging individuals experience when environmental demands exceed abilities to meet them. Awareness of potential motivators experienced by already relocated individuals also guides nursing assessment toward specific areas that have proved problematical in the past, thereby facilitating interventions most congruent with clients' needs, and promotes a more comprehensive and successful adjustment within the new environment.

Proposed assessment data involve two basic and interacting areas: (a) individual assessment in terms of needs and (b) assessment of the living environment in terms of meeting these needs, or environmental adequacy.

Individual assessment. Based on findings in this study related to the occurrence of specific motivators to relocation, the GCNS must attend to several basic characteristics of these events (see Figure 6.2).

1. Frequency
2. Significance
3. Multiplicity

Figure 6.2: Basic characteristics of motivating life events.

In terms of frequency of motivating life events, events related to personal health clearly dominated. The finding that the majority of solitary motivating life events reported and interpreted as potential triggers to relocation also related to personal health underscores the necessity for accurate and comprehensive assessment of physical health. Nursing implications are extended by the awareness that management of disease states may have extensive impact on clients' abilities to live independently.

In terms of the significance of specific motivators, events related to loss and family interactions, although they occurred relatively infrequently, can be expected to have significant impact. The GCNS must be alert to the occurrence of these events, and prepared to manage sequelae with potentially extreme psychosocial impact.

In terms of the presence of multiple motivating life events, the GCNS must be prepared to encounter and assess clients

potentially overwhelmed by the occurrence of numerous life events. Clients who are overwhelmed are at risk for developing states of incapacitating helplessness. They require assistance to gain time to disentangle these events and interrupt their cumulative effects. Also related to multiplicity, findings revealed that a significant number of respondents described the relocation experience as a process that involves an interrelated quality of contributing factors or events. Clients who perceive relocation as an end-point or an ultimate solution to their problems must be identified and assisted to formulate more realistic perceptions and expectations when necessary. In this regard, nursing implications extend to relocated clients who may need support in the face of new and unanticipated problems.

Finally, because a significant number of relocators indicated that the occurrence of life events did not completely capture their motivation to relocate, the GCNS must attend to assessment for factors outside this concept.

Environmental assessment. Findings in this study, by generating awareness of clients' individual and specific needs, also inform assessment of the adequacy of living environments in terms of meeting these needs. Environmental adequacy may be assessed by applying the basic characteristics of primary health care.

Because motivating life events related to personal health occurred most frequently, the GCNS must evaluate environmental adequacy in terms of facilities and services available to meet

physical health needs, or accessibility to care. The GCNS assesses the environment of older adults living independently with the understanding that life events and related needs may indicate increased vulnerability to environmental demands. Because eligibility for assisted-independent residency often requires high levels of domiciliary independence, facilities and services related to health care that may be required by an aging population are sometimes not in place. The GCNS must assess these aspects of environmental adequacy in light of meeting current and projected needs.

Because of the highly significant nature of select motivating life events, usually psychosocial in nature, the GCNS must assess environmental adequacy in terms of the comprehensiveness of available support. Assessment must include consideration for diverse needs in an aging population and for availability of various resources to address and meet these needs.

Because the motivation to relocate was often reported as a process involving multiple interrelated factors or events, the GCNS must assess environmental adequacy in terms of the provision of continuous and coordinated care. By appreciating the difficulties related to aging-in-place, assessment must include the environment's capacity for accommodating to changing or potentially escalating needs and attending to input from multiple care providers.

In summary, findings in this study inform the collection of individual assessment data by guiding the GCNS to consider areas that are highly significant to older adults. The GCNS must apply

this information in terms of assisting decisions related to the selection of appropriate residential options, ultimately facilitating optimal residential satisfaction and adaptation. The characteristics of primary health care provide a useful format for organizing and directing these assessments.

Role Characteristics

Implications for advanced nursing practice can be based on many characteristics identified as components of the GCNS's role in a primary care setting. Related to findings in this study, two role characteristics emerge as highly significant: the GCNS as client counselor and advocate.

Counselor role. The GCNS acts as a counselor to clients and their families as they seek to establish and maintain a living environment that is mutually perceived as beneficial and promotes the highest quality of life obtainable. While many life events that occur in the lives of older adults are seemingly unavoidable and unpredictable to some extent, there are mediating factors that influence their impact that are extremely responsive to intervention. Individuals' appraisal and responses to events and the level and quality of available support are important mediators amenable to the influence of nursing intervention.

In the counseling role, the GCNS employs educative strategies designed to assist clients to accurately evaluate environmental adequacy, promote effective problem-solving skills, enhance coping mechanisms, and secure effective social support. Counseling skills

and strategies are important as the GCNS educates clients and families regarding the range of environmental options available to them, the potential benefits and limitations associated with these options, and how to engage effective decision-making processes.

Advocate role. In the advocacy role, the GCNS works with clients and families to establish and maintain optimal person-environmental congruence. The GCNS advocate is primarily involved with promoting client self-efficacy by demonstrating how changes in the environment can be accomplished to secure provision of services and assistance necessary for optimal environmental adequacy. This role is particularly important in assisted-independent living environments where eligibility requires residents to be highly functionally independent, often an unrealistic expectation. Some assisted-independent residences do not have mechanisms in place for assisting residents whose needs, medically or functionally, may eventually exceed the level of assistance available on-site. Aging-in-place is not often a reasonable expectation. The GCNS advocate needs to inform clients of these limitations, assist in the selection of the best residential alternative, help prepare clients and families when needs may exceed the environment's capacities, and ensure support should the need evolve to secure a higher level of care. Client advocacy extends in a more general nature as the GCNS encounters various types of residential settings and seeks to implement policy or procedural changes to promote the highest quality of care available.

In summary, the GCNS, by employing the role characteristics of counselor and client advocate, is prepared to offer guidance in the development and maintenance of appropriate residential alternatives calculated to augment and enhance the quality of life for older adults.

Nursing Education

Several concerns valuable to nursing education are implicated by findings in this study. Input into the education of professional nurses could involve augmenting information related to the impact of life events commonly experienced by older adults on person-environmental congruence, adequacy, and change. Many theories and models presented in the didactic portion of student nurses' course work lend well to exploration of these relationships, and consideration for relevant concepts could be operationalized in the clinical portion of nurses' educational experience.

Implications regarding events in the lives of older adults that influence environmental selection and adaptation could be incorporated into programs presented to other nurses working in a variety of organizational settings. Workshops for nurses in the acute care setting who are involved with discharge planning, nurses attached to various residential communities for older adults, and nurses who regularly encounter older adults in general community settings could be appropriately targeted. The GCNS also can engage in larger social planning efforts to inform and guide the

development of appropriate environmental options available to older adults.

In summary, recommendations for nursing practice based on findings in this study relate to the advanced and specialized role of the GCNS who, in the provision of primary health care to older adults, uses a theoretical basis for practice, conducts advanced assessments with techniques related to older individuals' needs and characteristics of their environment, and performs activities related to specific role characteristics. The ultimate goal for the GCNS is to facilitate the development and maintenance of appropriate residential alternatives calculated to augment and enhance the quality of life for older adults.

Recommendations for Future Research

Recommendations for future research are primarily related to the distinct paucity of research regarding factors that motivate older adults to seek increased residential shelter. In the only found study that isolated specific life events as motivators to relocation (Beaver, 1979), the primary motivating events were (a) neighborhood changes that induced feelings of fear and insecurity and (b) the death of relatives and/or friends (p. 568). Distinctly different from findings in this study, several factors severely limit the generalizability of findings in the Beaver study. The setting was urban, the subjects were extremely poor, and the methodology specified that only those subjects who represented the extremes of residential adjustment were selected. The sole

participating facility was federally subsidized and offered no residential support services. Additionally, the time from relocation to data collection was lengthy, with a maximum of 2-1/2 years. Based on these kinds of differences, it is reasonably concluded that no comparisons of any significance can be made between the studies. These observations, however, underscore the necessity to design studies for highly individualized purposes, considering location and nature of intended populations and, ultimately, using caution in generalizing results.

Two important societal trends underscore the importance of further exploration in this area. First, the older population is increasing dramatically in numbers and in age, and these trends have significant implications for the evolution of available housing alternatives. Second, there is a current and well-documented rise in the development of assisted-independent residential options for older adults in both public and private sectors. These options often evolve based more on the perceptions of developers for their apparent appropriateness and suitability than on clear empirical evidence. Serious questions remain regarding the factors that motivate older adults to seek these residential options and whether these options are indeed meeting related needs. It is imperative, both economically and humanistically, to turn to responsible research for answers to these timely questions.

Specific recommendations for future research have evolved from findings and observations in this study and are organized in three

basic areas: research methodology, conceptual perspectives, and implications related to instrumentation.

Research Methodology

Given the extreme lack of research in this area, there is a need to derive a comprehensive body of basic information with which to inform and direct ensuing research. This can be accomplished essentially in two ways: by increasing informational depth or breadth.

Related to increasing informational depth, an initial qualitative approach would facilitate a more precise and detailed exploration of components of the relocation experience as well as for motivating factors outside the concept of life events.

In terms of increasing informational breadth, by treating this study more as a pilot effort, recommendations involve increasing its scope. A larger number of subjects and inclusion of diverse settings would strengthen representational qualities and thereby increase confidence and generalizability of results. Additionally, enlarging the number of subjects would justify the use of more sophisticated and potentially meaningful statistical techniques. In the future, study methodologies that include probability sampling techniques of the type designed by Newman (1975) and Newman, Morgan, Marans, and Pastalan (1976) in their examination of housing adjustments of older people would enhance the generalizability of study findings.

Conceptual Perspectives

The basic conceptual perspective used to organize this study problem couched the relocation process in an adaptational framework. Based on a stress paradigm (House & Robbins, 1983), the conceptual framework described a stress experience. Prior living environment and antecedent life events were defined as potential stressors significantly related to the perceived motivation to relocate, with relocation to the assisted-independent living environment viewed as an outcome of the stress experience. Findings in this study tend to support this view; however, several areas of refinement are suggested that could enhance or extend the application of this perspective in subsequent research.

The stress/adaptation perspective could be expanded by consideration for related components such as the processes of appraisal and coping. The concept of stressful life events could be limited to those events shown in this study to be highly frequent in occurrence or extremely significant in nature. For instance, the prevalence of events related to personal health suggests theoretical consideration specifically related to health and health beliefs. The significance of events related to loss could be explored more specifically from a loss/grief perspective. Outcome could be conceptually refined in terms of levels of residential satisfaction and of life satisfaction overall.

Other potential conceptual perspectives for organizing ongoing research were suggested by findings and observations in this study. The indication by some respondents that the relocation experience is

a process often representing the cumulative impact of a combination or compilation of factors suggests an organizing framework that addresses this process aspect, such as a decision-making model. Also, potential motivating factors for relocation outside the concept of life events were apparent. Related to aging itself and how older adults view the aging process, an organizing framework based on developmental or transitional theory, as well as the formal theories of aging, seems uniquely appropriate. Conceptual recognition of factors related to anticipation of changes due to the aging process and their impact on residential selection would be beneficial. Because events reported in this study were most often undesirable in nature and often had to do with decremental change associated with aging, an organizing perspective that considers an aspect of loss specifically related to the aging process would be appropriate.

Finally, because formal nursing theories often incorporate many concepts identical to those operant in this study, such as health, environment, and adaptation, the unique perspectives they provide would be particularly relevant to related research. The use of a conceptual framework specific to nursing would also promote development of specific practice-based interventions.

Observations Related to Instrumentation

The life event inventory used in this study seemed adequate, and it can be recommended for further use. In terms of reliability, since this instrument was used to simply enumerate a disparate group

of life events, the presence or degree of internal consistency between items is not applicable. Although establishing stability over time by test-retest methods seems to have definite limitations (Borg & Gall, 1983), this appears to be the only way to establish some degree of instrument reliability and should be considered. While the establishment of content validity was a primary concern during instrument development and steps were taken to achieve an adequate level, submission of the instrument to experts for review, particularly those in the field of gerontology, might be considered. In lieu of this, simply repeating its use, recording observations, and subsequently refining its content would be beneficial.

In summary for future research, there is a clear need for further study, potentially organized by various conceptual perspectives, to explore the motivation experienced by older adults for relocation from independent to more sheltered residential options. It appears that this study, as any exploratory effort should do, poses more questions than it provides answers. How do older adults anticipate needs as they age, and when do they begin to take definitive steps to provide for these needs? More specifically, are there critical times hallmarked by certain identifiable life events when independent living is perceived as inadequate? Why do particular individuals choose the assisted-independent environment? What does it represent to older community dwellers? To residents? Does the occurrence of certain life events

suggest a predilection for selecting certain types of assisted-independent residences? Is there any relationship between self-perceived motivating life events to relocation and satisfaction with assisted-independent living? Finally, are assisted-independent living environments meeting needs, and again, by whose estimation? Indeed, answers to some of these questions have been suggested by this research, although many remain viable and deserve the attention that future research can provide.

Summary of Study Contributions

The contributions this study has made to the area of relocation by elderly individuals from independent to assisted-independent living environments are:

1. Recognition that commonly occurring prior life events, particularly those self-perceived and appraised as motivators to relocation, suggest important areas of past environmental inadequacies and related needs and specific areas for assistance and support required in the future.

2. Recognition that while certain commonalities exist related to the occurrence of prior life events and their effects, it is important to acknowledge unique individual differences that affect person-environment congruence and adequacy, and subsequent adaptation.

3. Recognition that variables outside the concept of life events must be considered in order to fully comprehend the phenomenon of voluntary relocation by older adults.

4. Recognition that a conceptual framework that uses a stress/adaptation perspective is appropriate for organizing the study of life events and their impact on the motivation of older adults to relocate.

5. Recognition that there is a distinct need to assess current assisted-independent living environments, and to refine and enlarge available residential options, to more adequately meet present and future needs of elderly relocators.

6. The development of an instrument specifically designed for an elderly population to collect information related to the occurrence of prior life events.

This study has contributed to an area of research, largely underdeveloped, that has significant implications for the well-being of older adults, and for society concerned with the development and maintenance of appropriate and effective residential options available to this enlarging segment of the population. Issues of concern for the nursing profession are becoming more visible; however, more extensive research is clearly indicated in order to inform and direct assistance to older adults in establishing optimal levels of person-environment congruence and residential adequacy, and to promote maximal environmental adaptation.

APPENDICES

APPENDIX A

SOCIODEMOGRAPHIC DESCRIPTIVE QUESTIONNAIRE (SDDQ)

THE SOCIODEMOGRAPHIC DESCRIPTIVE QUESTIONNAIRE

Part I: Determinants of Eligibility

To be completed by the interviewer.

1. Date of interview: __ __/__ __/__ __
2. Date of relocation: __ __/__ __
3. Birthdate: __ __/__ __/__ __
4. Age: __ __ __ years

INTERVIEWER: Elicit information to determine:

5. Did prior permanent residence offer any formal supportive services or contain any facilities designed to assist residents in normal activities of daily living as part of the housing contract?

__ YES (1) 30 NO (0)

6. Is subject adequately fluent in English?

30 YES (1) __ NO (0)

7. 30 ELIGIBLE (1)

0 NON-ELIGIBLE (0)

Part II: General Information

To be completed by the subject.

1. Sex: 21 Female (1) 9 Male (2)

2. What is your marital status?

2 Single (1)10 Married, living with spouse (2)3 Married, not living with spouse (3) Divorced (4)15 Widowed (5)

3. What is your ethnic background?

30 Caucasian/White (1) Hispanic (2) Afro American/Black (3) American Indian (4) Other (5)

4. What is the level of education have you completed?

1 Elementary School (0 - 6th grade) (1)6 Junior High School (7th - 9th grade) (2)1 Some High School (10th - 12th grade) (3)5 Completed/Graduated High School (4)4 Some College (5)10 Completed/Graduated College (6)1 Advanced College Degree (7)2 Technical School, after high school (8)

5. What is your religion?

23 Protestant (1)4 Catholic (2)2 Other (3) (Please specify: Jewish (2))1 None (4)

6. What is your current employment status?

 Employed, full-time (1) Employed, part-time (2)29 Retired (3)1 Volunteer Work (4)

7. Please estimate your household taxable income last year (1986-1987)?

1 Less than \$10,000 (1)2 \$10,000 to \$19,999 (2)1 \$20,000 to \$29,999 (3) \$30,000 to \$39,999 (4) \$40,000 to \$49,999 (5) \$50,000 to \$59,999 (6)1 \$60,000 or more (7)

8. In what type of residence were you living before moving here?

17 Private Home/Home Owner (01) Private Home/Renter (02)1 Private Home/Occupant (03)11 Apartment/Renter (04)1 Other (Please specify: mobile home (1))

9. Before moving here, were you receiving any regular in-home assistance from any person, group or community service organization to help you with normal activities of daily living?

25 YES (1) 5 NO (0)

10. If YES, please check those areas in which you received help:

 Walking (01)
 1 Personal Care (bathing, grooming, toileting, dressing, eating) (02)
 9 Food Preparation/Provision (03)
20 Laundry/Housekeeping (04)
12 Transportation (05)
 3 Financial Affairs (paying bills, keeping accounts) (06)
 5 Other (Please specify: personal care for spouse (3),
information (1), outside home maintenance (1))

11. Compared with others of your own age, how would you rate your overall health at this time?

17 Better (1)
12 About the Same (2)
 1 Worse (3)

12. Do you have any chronic illnesses or conditions?

29 YES (1) 1 NO (0)

If YES, please list them:

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____
- 6) _____

13. How many times have you been admitted to the hospital in the past year?

_____ Times none = 18
 one = 8
 two = 4

14. Has your move here changed the amount of contact you have with your children or other members of your family?

14 Contact is More Frequent (3)
13 Contact is About the Same (2)
3 Contact is Less Frequent (1)

15. At this facility, please indicate your ability to perform the following activities: (Check only one response in each category.)

	ABLE TO DO COMPLETELY ALONE IF NECESSARY (1)	NEED <u>SOME</u> HELP FROM ANOTHER PERSON (2)	UNABLE TO DO <u>AT ALL</u> WITHOUT HELP FROM ANOTHER PERSON (3)
Walking	29	1	
Bathing	25	5	
Grooming	28		2
Toileting	30		
Dressing	28	2	
Eating	30		
Food Preparation/Provision	14	8	8
Laundry/Housekeeping	14	11	5
Transportation	14	1	15
Financial Affairs	20	6	4

APPENDIX B

GERONTOLOGIC LIFE EVENT CHECKLIST (GLEC)

GERONTOLOGIC LIFE EVENT CHECKLIST

Part I

Listed below are many different events that sometimes occur in a person's life. Please check all those events that happened in your life in the year before you came to live here.

1. Events associated with your own personal health:

Please check any of the following events that happened in your life in the year before you moved here:

Injury

3 Major Personal Injury (required a hospital stay)

3 Serious Personal Injury (received attention from physician or nurse)

Illness

11 Major Personal Illness (required a hospital stay)

5 Serious Personal Illness (received attention from physician or nurse)

4 Frequent Minor Personal Injuries or Illnesses

4 Onset of Chronic Illness or Permanent Disability

24 Medical Attention for Ongoing Health Problems

3 Sudden and Serious Impairment of Vision

 Sudden and Serious Impairment of Hearing

5 Sudden and Serious Impairment of Walking Ability

 Unable to get Treatment for a Health-Related Problem

If there were any other events related to personal health that happened in the year before moving here that were not mentioned above, please list them:

2. Events associated with the health of significant others:

Please check any of the following people who have had a major illness, injury, or change in health in the year before you moved here:

- 10 Spouse
- 4 Son/Daughter
- 3 Grandchild
- 5 Sister/Brother
- Father
- Mother
- 6 Other Relative
- 3 Close Friend

3. Events associated with loss:

Please check any of the following people who have died in the year before you moved here:

- 1 Spouse
- Son/Daughter
- Grandchild
- 1 Sister/Brother
- Father
- Mother
- 1 Other Relative
- 5 Close Friend

If there were any other events related to loss in your life that happened in the year before moving here that were not mentioned above, please list them:

Pet, euthanized due to relocation (1)

4. Events associated with family relationships and activities:

Please check any of the following events that happened in your life in the year before you moved here:

- ☐ Marriage
- ☐ Began to live with someone
- ☒ Separation from spouse or mate (due to conflict or institutionalization)
- ☐ Divorce
- ☐ Reconciliation with spouse or mate
- ☒ More family get-togethers than usual
- ☒ Less family get-togethers than usual
- ☐ More arguments with family member you were living with
- ☐ More arguments with family member you were not living with
- ☒ Improvement in relationships with family members
- ☒ Decline in relationships with family members
- ☐ A family member moves closer
- ☒ A family member moves away
- ☒ Major disruption or trouble in the life of a close family member

If there were any other events related to family relationships and activities in the year before moving here that were not mentioned above, please list them:

Increase in arguments between family members (1)

50th anniversary (1)

First granddaughter married (1)

5. Events associated with social relationships and activities:

Please check any of the following events that happened in your life in the year before you moved here:

- ☒ **1** Close friend moved away
- ☐ **Increased participation in social activities or recreation**
- ☒ **12** Decreased participation in social activities or recreation
- ☒ **10** Unable to take a planned vacation or long trip
- ☒ **6** Stopped driving or lost usual source of transportation

If there were any other events related to social relationships and activities that happened in the year before moving here that were not mentioned above, please list them:

6. Events associated with residence:

Please check any of the following events that happened in your life in the year before you moved here:

- ☒ 10 Dissatisfaction or difficulties with prior permanent residence
- ☒ 1 Change in residence (aside from moving here)
- ☐ Unable to move after expecting to move
- ☐ Lowering in value or condition of your prior residence or property
- ☒ 6 Need for major home repairs or difficulties with home maintenance
- ☒ 12 Increase in home maintenance costs
- ☐ Problems finding a new residence
- ☐ Lost a home through fire, flood, or other disaster
- ☐ New person moved into the household
- ☐ Person moved out of the household
- ☐ Period of homelessness

If there were any other events related to your prior residence that happened in the year before moving here that were not mentioned above, please list them:

Neighbors changed (1)

7. Events associated with employment:

Please check any of the following events that happened in your life in the year before you moved here:

- ☐ Began new job
- ☐ Change in work situation (responsibility, conditions, hours)
- ☐ Trouble with employer (danger of losing job, suspension, demotion)
- ☐ Fired from job
- ☐ Stopped working for an extended time period (not retirement)
- ☐ Retirement
- ☐ Spouse or mate begins work
- ☐ Spouse or mate ends work

If there were any other events related to employment that happened in the year before moving here that were not mentioned above, please list them:

8. Events associated with finances:

Please check any of the following events that happened in your life in the year before you moved here:

- ☒ **2 Major improvement in income (a lot better off)**
- ☐ **Major decline in income (a lot worse off)**
- ☒ **1 Anticipation of increasing, potentially unmanagable expenses**

If there were any other events related to finances that happened in the year before moving here that were not mentioned above, please list them:

9. Events associated with crime or legal concerns:

Please check any of the following events that happened in your life in the year before you moved here:

- ☒ **2 Assaulted or robbed**
- ☐ **Involved in an automobile accident**
- ☐ **Minor violation of the law (traffic ticket, for example)**

If there were any other events related to crime and/or legal concerns that happened in the year before moving here that were not mentioned above, please list them:

Intruders (2)

10. Events associated with functional capabilities:

Please check any of the following events or episodes that happened in your life in the year before you moved here:

- 7 Episodes of being unable to care for self in such activities as walking, bathing, grooming, toileting, dressing, or eating
- 2 Episodes of being unable to care for spouse/mate in such activities as bathing, grooming, toileting, dressing, eating, or moving from place to place
- 7 Episodes of being unable to manage activities related to home living such as food preparation/clean-up, inside housework, laundry, or outside home maintenance
- 10 Episodes of being unable to manage outside activities such as transportation, shopping, errands, or appointments
- 1 Episodes of being unable to manage usual financial affairs such as paying bills or keeping accounts

If there were any other events or episodes of being unable to function in your usual manner that happened in the year before moving here that were not mentioned above, please list them:

If there were any other events that happened in the year before moving here that were not mentioned above, or did not seem to fit in any of the categories, please list them:

Part II

From all of the life events that you previously checked or listed that happened in the year before moving here, please select those events that you consider to be the most important motivators to moving here.

Please list them below in the order of their importance, with the first being the most important:

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____

Finally, in your own words, briefly describe your reasons for relocating to this type of residential facility: **(INTERVIEWER will record these reasons in the space below.)**

APPENDIX C

INTERVIEW ASSESSMENT

INTERVIEW ASSESSMENT

To be completed by the interviewer.

1. Did the respondent's hearing, vision, or physical impairments cause any problems during the interview?

4 YES 26 NO

If YES, describe problem and any interviewing strategies that were helpful:

2. During the interview, did the respondent's behavior appear to you as:

Mentally alert and stimulating	<u>29</u> YES	<u>1</u> NO
Pleasant and cooperative	<u>30</u> YES	<u> </u> NO
Depressed or tearful	<u>7</u> YES	<u>23</u> NO
Withdrawn or lethargic	<u> </u> YES	<u>30</u> NO
Fearful, anxious or tense	<u> </u> YES	<u>30</u> NO
Full of physical complaints	<u> </u> YES	<u>30</u> NO
Unreasonably suspicious	<u> </u> YES	<u>30</u> NO
Inappropriate in thought or action	<u> </u> YES	<u>30</u> NO
Forgetful	<u>1</u> YES	<u>29</u> NO
Excessively talkative, jovial or elated	<u>4</u> YES	<u>26</u> NO

3. Factual answers obtained are believed to be:

25 Completely reliable
4 Reliable on most items
1 Reliable on few items
 Unreliable

4. Subjective answers are believed to be:16 Completely reliable13 Reliable on most items1 Reliable on few items Unreliable5. If the respondent had unusual difficulty answering specific items on either instrument, please indicate: (Give name/section of instrument, number/description of item, comments regarding nature of difficulty, and strategy employed to facilitate response)

6. What information did the respondent seek from you?8 No information22 Information about the study7 Other (describe)

7. What was the respondent's overall reaction to the interview?29 Mostly positive1 Neutral Mostly negative (describe briefly)

8. Describe any unusual situations that occurred during the interview:(Continue on back if necessary)

APPENDIX D

HUMAN SUBJECTS

MICHIGAN STATE UNIVERSITY

UNIVERSITY COMMITTEE ON RESEARCH INVOLVING
HUMAN SUBJECTS (UCRIHS)
206 BERKEY HALL
(517) 353-9738

EAST LANSING • MICHIGAN • 48824-1111

December 28, 1988

IRB# 88-556

Susan Heggen
2506 Normandy Drive, S.E., #105-B
Grand Rapids, MI 49506

Dear Ms. Heggen:

Subject: "A STUDY TO DESCRIBE THE LIFE EVENTS THAT PRECEDE
RELOCATION BY ELDERLY INDIVIDUALS FROM INDEPENDENT
LIVING INTO ASSISTED-INDEPENDENT ENVIRONMENTS
IRB# 88-556"

The above project is exempt from full UCRIHS review. I have reviewed the proposed research protocol and find that the rights and welfare of human subjects appear to be protected. You have approval to conduct the research.

You are reminded that UCRIHS approval is valid for one calendar year. If you plan to continue this project beyond one year, please make provisions for obtaining appropriate UCRIHS approval one month prior to December 28, 1989.

Any changes in procedures involving human subjects must be reviewed by the UCRIHS prior to initiation of the change. UCRIHS must also be notified promptly of any problems (unexpected side effects, complaints, etc.) involving human subjects during the course of the work.

Thank you for bringing this project to our attention. If we can be of any future help, please do not hesitate to let us know.

Sincerely,



John K. Hudzik, Ph.D.
Chair, UCRIHS

JKH/sar

cc: C. Collins

MEMORANDUM

Date: December 12, 1988

To: Dr. John K. Hudzik, Chair, UCRIHS

From: Dr. Clare Collins, College of Nursing

Re: Susan Heggen/Thesis Proposal status

Susan Heggen has successfully defended her thesis proposal. Her committee approved of her research project for her M.S.N. program in the College of Nursing on December 12, 1988.

APPENDIX E

CONSENT FORMS

MICHIGAN STATE UNIVERSITY

COLLEGE OF NURSING

EAST LANSING • MICHIGAN • 48824-1317

Dear

I am a Registered Nurse and a Masters of Science-Nursing candidate at Michigan State University, specializing in gerontology. I have completed the required course and clinical work for my degree. My clinical rotations last year were with Dr. Roland Mambourg at Sherbrook Nursing Center and at the family practice office of Dr. Kenneth Dudley. I am a resident of Grand Rapids and eventually hope to practice in this community.

I am currently looking for gerontologic subjects to interview for my graduate research project. My thesis is entitled: A Study to Describe the Life Events that Precede Relocation by Elderly Individuals from Independent Living into Assisted-Independent Living Environments. Specific research questions are: 1) What are the descriptive characteristics of this population? 2) What major life events have transpired in the year prior to relocation? and 3) What life events are self-perceived as significant motivators to the relocation?

This study is purely descriptive, and focuses on simple information gathering by one-time survey. Subjects would consist of those older adults, 55 or over, male or female, single or couples, who have relocated from independent living into assisted-independent living facilities within the past six months.

I will be looking for approximately 20 to 40 subjects, in total, who meet these criteria, from various assisted-independent living facilities in the Grand Rapids area. Subject participation must be voluntary. Involvement by staff would be minimal, largely consisting of composing a list of in-movers over the past six months.

After sending an introductory letter, I would contact each potential subject in person, determine desire to participate, obtain informed consent, and proceed with data collection with eligible subjects. Data collection consists of two questionnaires completed during an interview with me that would last approximately one hour. At the conclusion of the interview, contact would be terminated. Each respondent would receive a post card to mail in case of questions or concerns regarding their participation in the study, or if they desire to receive general results of the study in the future. Respondents are assured of complete confidentiality regarding their identities and personal information that they give.

MICHIGAN STATE UNIVERSITY

COLLEGE OF NURSING

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2

My proposal has been approved by my thesis committee, a group of four individuals on staff at the University. They are: Dr. Clare Collins, Professor College of Nursing (Chair); Dr. Barbara Ames, Professor College of Human Ecology; Dr. Sharon King, Professor College of Nursing; and Carol Garlinghouse, MSN, Professor College of Nursing. Concerns regarding this proposed research would be most effectively directed to Dr. Collins, College of Nursing, Graduate Office, A-230 Life Sciences Building, Michigan State University, East Lansing, Michigan, 48824-1317; (616) 355-6526.

All research projects at Michigan State University that involve human subjects are scrutinized in depth by the University's Committee on Research Involving Human Subjects (UCRIHS) for approval prior to implementation.

At this point in my education, I am coming into increasing awareness of the importance and need for timely gerontologic research, particularly given the social and economic imperatives in the areas of long term care and housing for our burgeoning elderly population. I can even speculate that studies such as this may be of some immediate practical value to gerontologic professionals.

I hope this clarifies the scope and intent of my research. I will call in approximately one week to find out if your facility is interested in participating. In the mean time, if you have any questions or concerns, please feel free to contact me.

Thank you for your consideration,

Susan Heggen



2506 Normandy Drive S.E. #105-B
Grand Rapids, MI 49506
452-8574

Enclosed, please find copies of the introductory letter, consent form, card for information request by subjects, and the proposed questionnaires.

MICHIGAN STATE UNIVERSITY

COLLEGE OF NURSING

EAST LANSING • MICHIGAN • 48824-1317

Dear

I am a Registered Nurse and a graduate nursing student at Michigan State University currently working on a research project for my Master's degree. This research project has to do with older adults who have recently relocated to residences such as this one. I am interested in finding out why individuals make this kind of move.

Participation in this research project would consist of a personal interview with me that would take about an hour of your time. You would be asked to fill out two questionnaires that have to do with general information about you, the events that have happened in your life in the year before moving here, and which of those events you believe may have motivated such a move.

I am not formally associated with this facility in any way, nor is this research project. Your identity, as well as any information that you would give, is strictly confidential. Personal information about you will not be transmitted to this facility.

While the results of this study may not benefit you directly, they may prove helpful to others who make similar moves, and to those involved with the development and management of residential facilities like this one.

I will be contacting you personally within the next week to find out if you would like to participate in this study. Your participation is voluntary. You may choose not to participate at all without penalty.

Thank you for your consideration.

Susan Heggen R.N.

Susan Heggen, R.N.
Graduate Nursing Student
Michigan State University

CONSENT FORM

The study in which you are asked to participate is designed to obtain general information about you and the kinds of events that have occurred in your life during the year before you came to live here. You are also asked to indicate which of those events you consider to be the most important motivators to moving here.

Participation in the study will take approximately one hour of your time and will require you to respond to two (2) questionnaires as honestly and accurately as possible. Your identity and your answers will be held in strict confidence. No attempt will be made to identify you personally in any way.

If you agree to participate in this study, please read and sign the following statement.

By signing this form, I understand that:

1. Participation in this study is voluntary. I am free not to participate at all, to terminate my participation at any time, or not to answer certain questions without penalty or any change in the services to which I am entitled.
2. The study has been fully explained to me. Furthermore, I understand the explanation that has been given to me and what my participation involves.
3. I am free to decline to answer any question(s) or to discontinue my participation in this study at any time without penalty.
4. My responses will be treated with strict confidentiality. Participating individuals will remain anonymous in any report of research findings.
5. I am not guaranteed any beneficial effects from my participation in this study.
6. If I have any questions or concerns that may be raised by my participation in this study, or if I would like to receive information regarding results, I may contact the individual given on the attached card.
7. This research is being conducted as partial fulfillment for the requirements for the degree of Masters of Science in Nursing, College of Nursing, Michigan State University. This study is not associated with my residential facility in any way. My identity will not be transmitted to the residential facility.
8. I freely consent to take part in this research.

Witness

Signature

Date

Date

If you need to discuss questions or concerns regarding this research, contact:

Susan Heggen
2506 Normandy Dr. S.E., #105-B
Grand Rapids, MI 49506
(616) 452-8574

If you have any questions or concerns regarding your participation in this study, please contact me at the address given on the front of this card.

If you are interested in receiving general information regarding the results of this study, please indicate by printing your mailing address below and mailing this card.

Susan Heggen
2506 Normandy Dr. SE #105-B
Grand Rapids, MI 49506

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