

**Quality of Life in Assisted Living: Perceptions about
Facility, Social Resources, and Well-being**

*Proposal to the John A. Hartford Foundation
Geriatric Social Work Initiative
Faculty Scholars Program*

February 1, 2005

Nan Sook Park, MSW, Ph.D.
Assistant Professor
School of Social Work
University of Alabama
Box 870314
Tuscaloosa, AL 35487-0314

Telephone: 205-348-4441
Fax: 205-348-9419
E-mail: npark@bama.ua.edu

**Quality of Life in Assisted Living:
Perceptions about Facility, Social Resources, and Well-being**

Abstract

Purpose

Little is known about the psychosocial well-being of older adults in assisted living facilities and the relationship of well-being to important aspects of their lives. The purpose of this proposed study is to better understand the psychosocial well-being among older adults in assisted living facilities. More specifically, this study will explore the causal mechanisms by which the psychosocial well-being is affected by perceptions about the facility, social resources, and functional status.

Methods

A total of 200 residents will be selected conveniently and purposively from assisted living facilities stratified by facility size and proprietary status in Tuscaloosa and Jefferson counties of Alabama. This study will employ both quantitative and qualitative approaches. In the quantitative approach, various instruments will be used for interviews, and data will be analyzed using structural equation modeling techniques. In the qualitative portion of the study, central themes of well-being will be explored using in-depth, semi-structured interviews. Recurring themes and relationships among the themes will be examined in the qualitative data.

Results

Results from the quantitative data are expected to help delineate relationships among perceptions about facility characteristics, social resources, and functional status of residents. Findings from qualitative interviews will provide insights on the quality of life and psychosocial

well-being among residents in assisted living facilities. They will also be used to modify quantitative models.

Implications

Assisted living facilities are increasingly recognized as viable alternatives to nursing homes for older adults who opt to live independently in less structured settings. Assisted living research has also been identified as having usefulness to inform social work practice in this area. This study will contribute to building the knowledge base in understanding the social and emotional life of older adults in assisted living facilities. It will also provide insights for developing best practice models to serve those vulnerable clients.

Quality of Life in Assisted Living:

Perceptions about Facility, Social Resources, and Well-being

Introduction

Problem Statement: The proposed study will explore the linkages between residents' perceptions of the assisted living facility environment and residents' psychosocial well-being. Although assisted living facilities claim to be based on a social model of care, the social aspect of the care they provide has not been well researched. The purpose of this study is to better understand the well-being of assisted living residents in relation to important aspects of their lives using both quantitative and qualitative data. In both approaches, this study will explore and test the potential mediating effect of social resources between residents' facility perceptions and well-being. The study will also examine the potential moderating effect of functional ability in the relationships among perceptions, social resources, and well-being.

Assisted living facilities have become a viable housing option by providing both housing and personal services for older Americans (Kane & Wilson, 1993). There are over 35,000 assisted living facilities in the United States providing services to as many as one million Americans (Ball et al., 2000). Assisted living is defined and regulated by each individual state. It includes diverse types of residential care settings, such as board and care, group homes, and assisted living. Despite the diversity in assisted living, it shares the commonality of housing people who need personal assistance in non-nursing settings (Zimmerman, Sloane, & Eckert, 2001). Assisted living ideally provides older Americans with services, so that they maintain their independence, dignity, and autonomy as long as possible in congregate living settings (Kane, 2001).

Quality of care and its relationship to individual outcomes in long-term care has gained considerable research and policy attention during the last few decades (Davis, 1991; Kurowski & Shaughnessy, 1983; Mitchell & Kemp, 2000; Zimmerman et al. 2001). Although meaning or experience of quality may differ depending on individual preferences and needs, research on quality of care has been driven mostly by physical environment and health issues. This trend is

unfortunate, especially for research in assisted living because assisted living is reportedly based on a social model of care as opposed to a medical model of care.

Several scholars have noted that elements of care and outcomes in long-term care should be meaningful to residents (Kane, 2001; Kane et al., 2003; Mitchell & Kemp, 2000; Sikorska, 1999; Sikorska-Simmons, 2001). For example, Kane (2003) reported ten quality of life domains for nursing home residents, which included comfort, security, meaningful activity, relationships, functional competence, enjoyment, privacy, dignity, autonomy, and spiritual well-being.

Notably, this study equated quality of care with quality of life, and psychological and social aspects of life were embedded in those domains of quality of life. Similarly, Sikorska-Simmons (2001) developed the Resident Satisfaction Index (RSI) to measure the quality of life in assisted living from the resident's perspective; five domains include resident perceptions of health care, housekeeping services, physical environment, relationships with staff, and social life/activities.

The importance of both physical and social environmental factors has also been identified as contributing to individual well-being (Kahana, Kahana, & Young, 1985). For example, supportive interpersonal relationships, resident autonomy, and a cohesive facility environment are likely to contribute to residents' well-being (Carder, 2002; Moos & Igra, 1980; Timko & Moos, 1991). These studies indicate that residents' perceptions about important areas of their life (e.g., autonomy, dignity, and interpersonal relationships) are related with their sense of well-being, and that these aspects of care should not be overlooked in understanding quality of care and quality of life in long-term care settings.

Social resources such as maintaining supportive relationships with significant others and opportunities for social activities within the facility play a critical role in residents' emotional well-being and morale (Bocksnick & Hall, 1994; Mitchell & Kemp, 2000; Noelker & Harel,

1978). This social aspect of life is congruent with the social model philosophy promoted by assisted living that focuses on “meaningfulness” of relationships and activities (Kane, 2001). Sikorska (1999) reported the lack of congruence between resident preferences and types of activities offered, and that functional status of residents prevented them from pursuing their preferences. This result indicates that when considering residents’ preferences and needs and relating them with well-being, the resident’s functional status should be also considered.

In summary, quality of care may be understood through quality of life. The welfare of residents in long-term care has been emphasized in both early research (Donabedian, 1980) and recent work (Kane, 2001). Yet, there is a dearth of research regarding psychosocial aspects of care and how they are related to the psychosocial well-being of residents in assisted living facilities. This may be due to the fact that research on assisted living is a relatively new area and that research has primarily been pursued using models developed in nursing home studies. Previous studies indicate that considerations of resident preferences and needs and interpersonal relationships provide a more complete picture of life in assisted living for many older adults. Thus, this study will narrow the current gap in understanding the psychosocial well-being of older adults in assisted living facilities and the mechanisms by which psychosocial well-being is affected.

Theoretical Perspective

The proposed study is based on person-environment theories and the structure-process-outcome (SPO) framework in understanding residents’ well-being in relation to perceptions about physical and social environment. First, person-environment theories posit that the physical and social environment is important to individual well-being and health, and that not all individuals respond to their environment in the same way (Kahana, 1982; Lawton, 1982). The

two relevant person-environment theories are the congruence model of person-environment fit (Kahana, 1982) and ecological model of aging (Lawton, 1982).

The congruence model of person-environment fit facilitates “understanding the impact of environment on the well-being and adjustment of older people” (Kahana, 1982, p. 97).

According to the model, a close fit between environmental characteristics and individual preferences and needs contributes to a sense of well-being and function in an older person. In other words, a sense of well-being is promoted when individuals are located in a setting that fits their needs. Similarly, the ecological model of aging defines the context or environment that interacts continuously with a person, drawing on Murry’s (1938) conceptualization of behavior as a function of the person and environment. The behavior, consisting of both observable behavior and affective response, is the result of the interaction between the competence of the individual and the environmental press of the situation. Lawton (1982) emphasized the importance of considering different environments such as physical, social, and interpersonal.

The SPO framework provides a means to understand the quality of care provided in long-term care settings (Donabedian, 1980, 1988). The three domains of this framework include (a) structure (attributes of the setting in which care occurs, e.g., physical amenities); (b) process (the manner in which care is delivered, e.g., the practice of promoting residents’ choice and control); and (c) outcome (the effects of care received, e.g., functional change, life satisfaction). This three-part approach typically incorporates organizational characteristics with outcomes. That is, good outcomes are major objectives in quality of care, be they medical or psychosocial outcomes, and they are affected by structure and process aspects of care in facilities. Because of the comprehensiveness of the perspective and its overall applicability to health care and quality, the framework has been widely applied to long-term care research including assisted living

(Gibbs & Sinclair, 1992; Moos & Lemke, 1996; Zimmerman et al. 2001). In summary, the person-environment theories and the SPO framework suggest that more supportive, cohesive and autonomous environments are conducive to promoting individuals' psychosocial well-being. However, this may be contingent on individual meaning and competency.

Research Questions

This study will be guided by three main questions (see Figure 1 for a graphic summary of the conceptual relationships among key constructs):

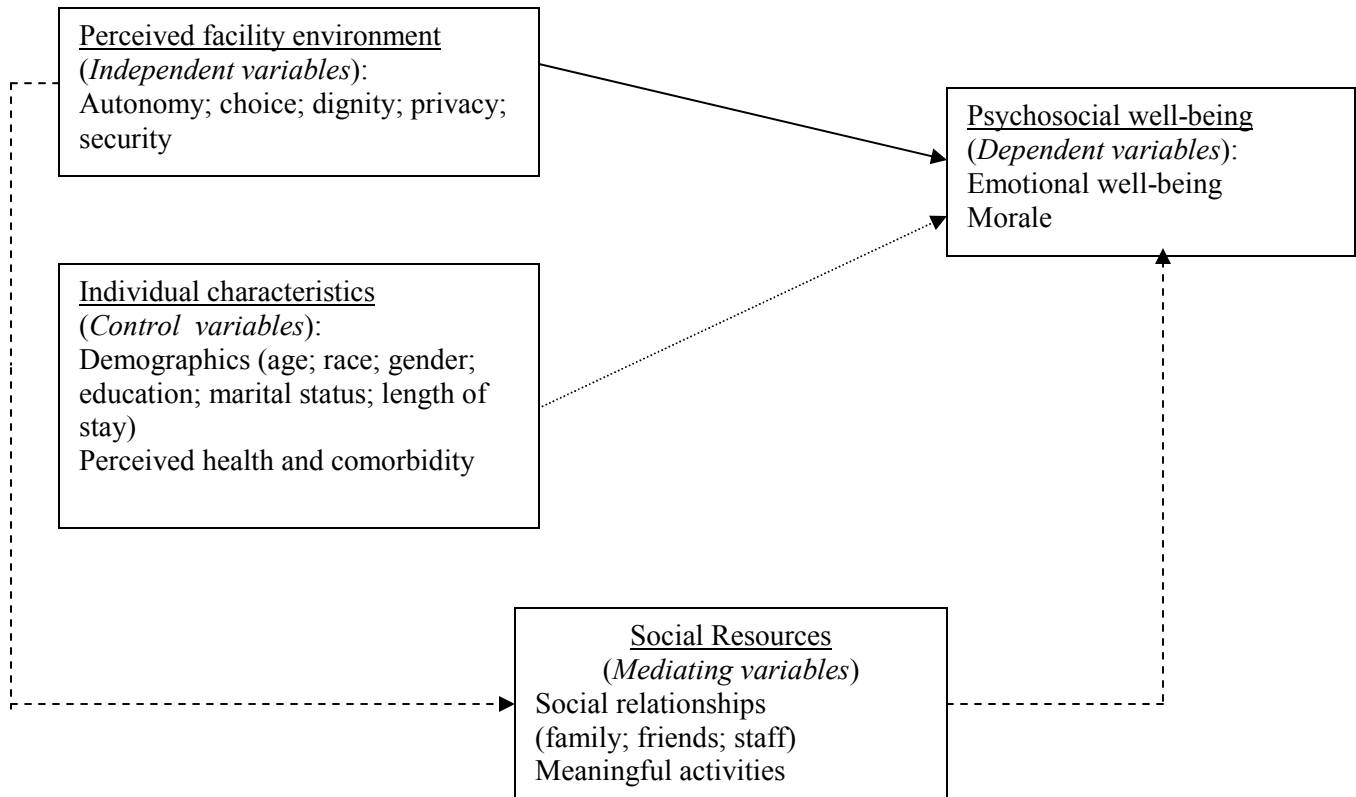
- (1) What is the level of psychosocial well-being among residents in assisted living facilities? Are there variations depending on specific resident characteristics?
- (2) What are the predictors of psychosocial well-being?; What is the main contribution of perceptions about facility rule and environment controlling for individual characteristics?; What is the role of social resources?; How do social resources mediate the relationship between perceived facility characteristics and psychosocial well-being?
- (3) What is the extent to which individual functional health (i.e., functionally independent vs. dependent) moderates those relationships among perceptions, social resources, and well-being?; How does the functional status change the nature of the relationships (stated in question 2)?

Methods

Sampling

The sampling frame consists of facilities licensed as “assisted living facilities” (ALF) by the Alabama State Board of Public Health. It is important to know how assisted living is defined in Alabama. The Alabama State Department of Public Health defines assisted living as “individuals, corporations, partnerships, limited partnerships, or any other entity that provides or offers to provide residence and personal care to individuals who are in need of assistance with activities of daily living” (Alabama State Department of Public Health, 2002, p. 1).

Figure 1. Conceptual Model of Factors Affecting the Psychosocial Well-being of Residents in Assisted Living:



Note: ___ Direct Effect; - - - Indirect Effect; Controlling for
This same model will be tested between functionally independent versus functionally dependent group to examine the moderating effect.

The state of Alabama has two major licensing categories for assisted living: (a) traditional ALF (n=255); and (b) Specialty Care Assisted Living Facilities (SCALF) (n=85) designed for residents with Alzheimer’s or senior dementia. This project will exclude the SCALF category because residents with a dementia may not be able to completely understand interview questions and answer accordingly, which is a critical component in this study. Under the traditional ALF category, there are three sub-groups of ALF according to bed capacity: (a) family ALF is authorized to care for 2 or 3 adults; (b) group ALF is authorized to care for 4 to 16 adults; and (c) congregate ALF is authorized to care for 17 or more adults. This project will

exclude family ALF because those facilities house only a few residents and may not be comparable to other larger types of facilities.

Explaining variations across different types of facilities is not focus of this study, which may be accomplished through a large scale or an epidemiological study. However, this study will control for variations due to facility size and proprietary status, which have been reported as useful in differentiating facilities. In previous studies, researchers have particularly been interested in the facility size in terms of determining the quality of care and care environment (Morgan, Gruber-Baldini, & Magaziner, 2001; Weihl, 1981). For example, smaller facilities may be different from larger ones with respect to physical appearance (e.g., “homelike” surroundings) and the way they operate on a daily basis (e.g., interactions with staff, facility-level choice and control, family involvement, availability of recreational and health resources). Also, evidence exists that proprietary status is associated with facility structure and care process (Aaronson, Zinn, & Rosko, 1994). In general, non-profit facilities tend to be associated with higher staffing levels, a more comfortable physical environment, more cohesive relationship between staff and residents, and more resident control (Aaronson et al., 1994; Lemke & Moos, 1989).

A list of licensed facilities will be generated from the Assisted Living Association of Alabama (ALAA) and the Alabama Department of Public Health (ADPH). Then, facilities will be stratified by facility size and proprietary status. Within the strata, sample facilities and then residents within these facilities will be drawn conveniently and purposively in Jefferson and Tuscaloosa counties, Alabama. Although unlikely, if a sufficient sample is not acquired in the target area, facilities and residents in neighboring counties will be contacted. Each stratum will have at least 50 residents, approximating the total number of residents at 200. This number

exceeds the general rule of thumb, 30 per group (Fink, 1995). Table 1 shows the sample blueprint.

Table 1. The Number of Residents Needed for the Proposed Study.

		Proprietary Status		Total
		Not for Profit	For Profit	
Facility Size	Group ALF	50	50	100
	Congregate ALF	50	50	100
Total		100	100	200

Because the estimated sample size is an approximation based on a simple rule, the final decision about the sample size will be made through consultation with a statistician and conducting a power analysis. In determining the sample size for the research design, it is important to consider the level of significance for hypothesis testing, issues of effect size, and specific statistical testing methods (Cohen, 1990; Lipsey, 1998). In addition to these statistical considerations, costs associated with managing facilities and respondents and availability of resources will be taken into account.

Procedures

The study will be submitted for human subjects review to the Institutional Review Board (IRB) of The University of Alabama for approval. Administrators, staff, and residents of participating facilities will be told that the purpose of this study is to enhance understanding of psychosocial well-being in assisted living facilities. Upon the approval of the administrator, eligible residents from each facility will be selected and contacted by the project team.

Residents will be eligible for this project if they are over the age of 65 and capable of understanding and answering questions. Facility personnel (e.g., administrator, case worker, nurse practitioner) will assist in the selection of eligible residents. In facilities with fewer than 16 beds (group ALF), all eligible residents will be asked to participate. In larger facilities with

17 or more beds (congregate ALF), participants will be randomly selected for inclusion out of those who meet eligibility criteria. No more than 20 participants from a facility will be included to ensure variation in facilities. Informed consent and confidentiality agreements will be obtained from participating facilities and residents.

The project team will consist of the principal investigator and two graduate research assistants. One research assistant will be provided by the School of Social Work, and the other research assistant will be budgeted for in this grant proposal. The principal investigator will train the research assistants to interview residents using close-ended questions (measures will be discussed in the following section). All members of the project team will receive training from an experienced researcher in qualitative research regarding how to conduct a qualitative interview (sample open-ended questions are presented in Table 2).

Table 2. Possible Questions for the Qualitative Interviews with Residents

(1) Please describe a typical day in this facility (<i>the name of the facility</i>).
(2) Please tell me, when it comes to living in this facility (<i>the name of the facility</i>), what is central to your life?
(3) How do you perceive the role of a facility like this (<i>the name of the facility</i>)? Are there any aspects of the facility characteristics that you like or dislike? Are there things you would like to change?
(4) How do you describe your mood recently? Could you tell me what contributes to your sense of well-being (e.g., happiness, satisfaction, morale)?
(5) What has your health been like recently? Are you pleased with the state of your health?
(6) How would you describe your relationship (to your family, friends, staff, and other residents)? Are some relationships more important to you than others? Why?
(7) Please tell me what activities you enjoy doing most in this facility?
(8) Please share your outlook of your future with me. Are there things you worry about or things you're looking forward to in the future?

Interviews will be conducted in a private location within the facility without distractions and where the respondents feel comfortable. Informed consents will be signed, and then a series of close-ended questions will be asked. Afterwards, several open-ended, more in-depth questions will be asked. The qualitative portion of the interview will be tape-recorded (with

permission from the respondent) and transcribed later. Each interview is expected to take a total of approximately 60-90 minutes.

Measures

Facility-level information.

Facility-level information will be obtained from administrators and will be used for descriptive purposes. Data to be collected includes facility size; occupancy rate; years of operation; affiliation with other organizations; average resident age; resident distribution by ethnicity or race; and provision of services (e.g., medical services, social activities, housekeeping services, case management/social work services).

Resident-level information.

The resident-level information consists of four major domains—dependent, independent, potentially mediating, and control. First, as a dependent measure, psychosocial well-being consists of emotional well-being and morale. Emotional well-being will be measured using the Salamon-Conte Life Satisfaction in the Elderly Scale (LSES) (Salamon & Conte, 1984). The LSES consists of 40 questions, covering satisfaction in eight categories including daily activities, meaning, goals, mood, self-concept, health, finances, and social contacts. Respondents choose the response that best matches the way they feel out of five choices for each item. The reported Chronbach's alphas are 0.92-0.93 (Grann, 2000). Morale will be measured through administration of the Philadelphia Geriatric Center Morale Scale-Revised (Lawton, 1975). The scale was designed to measure psychosocial well-being in three dimensions: agitation, attitudes toward one's own aging, and loneliness using 17 items in an agree/disagree format. Reported Chronbach's alphas for the three subscales in this measure range from 0.81 to 0.85 (Grann, 2000).

Second, independent variables regarding perceptions about facilities include autonomy; choice/control; dignity; privacy; and security. Items will be revised from the Policy and Program Information Form (POLIF) of the Multiphasic Environmental Assessment Procedure (MEAP; Moos & Lemke, 1996) and from the subscales of the Quality of Life (QOL) Scales for Nursing Home Residents (Kane et al., 2003). The former provides a battery of questions regarding rules and policies in assisted living; however, because the questions were designed for facility administrators, they will be modified to obtain residents' perceptions. The QOL subscales consisting of 4-6 Likert-type questions offering a quick assessment of resident perceptions in the areas of autonomy, dignity, privacy, and security. However, because the scales were targeted for nursing home residents, questions will be modified to account for circumstances appropriate for residents in assisted living.

Third, social resources are hypothesized mediating variables, which include perceptions of social relationships (family, friends, and staff) and meaningful activities. Questions will be modified from the following existing scales: (a) Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet, Dahlem, Zimet, & Farley, 1988), which assesses the adequacy of an individual's perceived social support from family, friends, and significant others in a concise 12-item battery (reported Chronbach's alphas = 0.88); and (b) subscales of meaningful activity and relationship from the Quality of Life (QOL) Scales for Nursing Home Residents (Kane et al., 2003).

Lastly, general information about residents will be obtained to be used as control variables, including: (a) background information (e.g., gender, age, marital status, information about family and friends, education, race/ethnicity); (b) prior housing arrangements and current tenure in facility; (c) finances; (d) comorbid conditions (e.g., vascular disease, heart problems,

diabetes, glandular disorders, glaucoma, kidney disease, renal insufficiency, ulcers, cancers) and self-rated health status; (e) vision and hearing; and (f) physical activities of daily living (ADL) using Barthel Index (Roy, Togneri, Hay, & Pentland, 1988). This instrument assesses feeding, grooming, bowel and bladder continence, dressing, toileting, transferring, walking, and bathing. The previously reported inter-rater reliabilities for this inventory are 0.88-0.99 (Pearson, 2000).

Analysis Plan

Quantitative data analysis

First, data analyses will start with univariate descriptive statistics. Distributions of the variables including central tendency and variability, and missing values will be examined. Distributions violating normal assumptions (in particular, excessive kurtosis) will be checked, and variables will be modified (e.g., transformation of the variables); variables with the univariate kurtosis problems can threaten the maximum likelihood estimators based on the assumptions of multivariate normality when using structural equation modeling (SEM) analyses subsequently (Bollen, 1989). Then bivariate and multiple (e.g., entering block of independent variables) between predictors and dependent variables will be examined.

Second, mediation effects of social resources will be examined in two SEM alternative ways: (a) simplifying the model by creating composite index scores for each domain of variables (independent, mediating, and dependent variables) and examining the structural relationship; and (b) latent variable approach consisting of three latent constructs (i.e., perceived facility environment, perceived social resources, and psychosocial well-being) and their indicators. This modeling attempts to draw a causal relation by examining structural relationships (Bollen, 1989). In this process, fit indices will be examined and models may be modified based on those indices to obtain best fitting models to the data and the substance. It is hypothesized that there are direct,

positive effects of perceptions about the facility to psychosocial well-being and of social resources to psychosocial well-being, and that when three domains are included in the model, the relationship between perceptions about the facility and psychosocial well-being will be weakened.

Lastly, moderating effects of functional status will be analyzed using multiple group comparison in SEM (Kline, 1998). Two groups (functionally dependent vs. independent) will be created by splitting the sample based on the median score of the Barthel ADL. The same analyses mentioned in the previous section will be conducted, however, in the context of two different groups. This is a common procedure in examining interaction effects in SEM. The purpose is to examine differential structural relations based on functional status. It is hypothesized that differential structural relationships are obtained between functionally independent and functionally dependent groups in terms of the relationship of perceptions and social resources to psychosocial well-being. Data entry, descriptive statistics, and simple regression models will be run using SAS 8.2 (SAS Institute Inc., 1999-2001). AMOS (Analysis of MOment Structures) 5.0.1 will be used for SEM analyses (SPSS Inc., 2003).

Qualitative data analysis

The tape-recorded interviews will be transcribed verbatim by a transcription specialist (and possibly by a trained research assistant). The data will be analyzed using Atlas/ti, which is designed for organizing data coding and assisting in interpretation and theory building. Key words and quotations will be coded. Themes will be searched also in metaphors, repetition of words, changing the subject, and other cues (such as pauses and shifts in the tone of voices) as there are multiple ways to examine themes (Ryan & Bernard, 2000). After coding and interpreting text focusing on recurring themes, relationships among the codes will be examined.

To verify the findings, triangulation method will be used (Jick, 1979). This study will triangulate numerical data obtained from the quantitative data with the qualitative data

Significance and Limitations

The philosophy and the emphasis of assisted living on a social model of care are in line with the social work profession in that the profession has long been committed to promoting psychosocial functioning of individuals within a framework of person-in-environment (Karls & Wandrei, 1995). This study will contribute to building the knowledge base in understanding the social and emotional life of older adults in assisted living facilities and providing insights for best practice models. This study will also advance the concept of a holistic approach to care linking psychosocial well-being with the physical and social environment and with physical health among older adults in assisted living facilities.

Assisted living research is being increasingly recognized with a potential to inform social work practice in this area. Spitzer and colleagues (2004) suggest that social work will have a significant opportunity to make practice contributions in assisted living. Examples of important tasks being conducted by social workers in assisted living include advocating for the dignity and rights of individuals and empowering older adults by helping them meet their own unique needs. The growth and needs in assisted living for social work practice and research have been projected by leading social work practitioners and researchers. In a national study, housing and living arrangements were considered one of the high priority issues for gerontological social work research and practice in the future (Burnette, Morrow-Howell, & Chen, 2003).

This study has two potential limitations. First, the nonprobability, convenient sampling method may limit generalizability of findings beyond the sample itself. Also related to the sampling, this study includes only residents who are capable of understanding and responding to

interview questions. Thus, psychosocial well-being of those with cognitive limitations will not be explored. Nevertheless, this study will uniquely contribute to understanding psychosocial well-being of older adults in relation to important aspects of their lives in assisted living facilities.

Second, the cross-sectional nature of this study may limit drawing causal relationships. Although SEM approaches help to delineate sophisticated relationships, they do not necessarily guarantee establishing causal relationships (Bollen, 1989). This limitation will be overcome, in part, by using qualitative in-depth interviews. By triangulating the methods, research design can establish validity (Creswell, 2003). In addition to elucidating person-centered reality and feelings, the qualitative interview data will contribute to understanding and modifying the causal models for quantitative data.

In conclusion, assisted living facilities have become home for many older Americans who opt to maintain independence, privacy, dignity, and social support as long as possible when they are no longer able to live in and care for themselves in their own independent residence. However, relatively little is known about the psychosocial well-being of residents in this setting and how environment, social factors, and physical health status affect well-being. This study will explore the causal mechanisms among perceptions, social resources, and psychosocial well-being among older adults in assisted living facilities. In so doing, this study will be guided by strong empirical evidence and theoretical foundation. Findings from this study will contribute to building knowledge in improving the health and well-being of older adults and generating practice and policy implications in this area.

References

- Aaronson, W. E., Zinn, J. S., & Rosko, M. D. (1994). Do for-profit and not-for-profit nursing homes behave differently? *The Gerontologist*, 34(6), 775-786.
- Alabama Assisted Living Association. *Our member facilities*. Retrieved January 6, 2005, from Alabama assisted living online: <http://alaaweb.org/facilities/index.cfm>
- Alabama State Department of Public Health (July, 2002). *Rules of Alabama state board of health: Chapter 420-5-4 Assisted living facilities with licensure law*. Montgomery, AL: Author.
- Ball, M. M., Whittington, F. J., Perkins, M. M, Patterson, V. L., Hollingsworth, C., King, S. V., & Combs, B. L. (2000). Quality of life in assisted living facilities: Viewpoints of residents. *Journal of Applied Gerontology*, 19(3), 304-325.
- Bollen, K. A. (1989). *Structural equations with latent variables*. New York: Wiley.
- Bocksnick, J. G., & Hall, B. L. (1994). Recreation activity programming for the institutionalized older adults. *Activities, Adaptation, & Aging*, 19(1), 1-25.
- Burnette, D., Morrow-Howell, N., & Chen, L. (2003). Setting priorities for gerontological social work research: A Delphi study. *The Gerontologist*, 43, 828-838.
- Carder, P. C. (2002). The social world of assisted living. *Journal of Aging Studies*, 16(2002), 1-18.
- Cohen, J. (1990). Things I have learned (so far) (1990). *American Psychologist*, 45(12), 1304-1312.
- Creswell, J. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage.
- Davis, M. A. (1991). On nursing home quality: A review and analysis. *Medical Care Review*, 48(2), 129-166.
- Donabedian, A. (1980). *Explorations in quality assessment and monitoring*. Vol. 1, *The definition of quality and approaches to its assessment*. Ann Arbor, MI: Health Administration Press.
- Donabedian, A. (1988). The quality of care: How can it be assessed? *JAMA*, 260(10), 1743-1748.
- Fink, A. (1995). *How to ask survey questions*. Thousand Oaks, CA: Sage.

- Gibbs, I., & Sinclair, I. (1992). Residential care for elderly people: The correlates of quality. *Ageing and Society*, 12(4), 463-482.
- Grann, J. D. (2000). Assessment of emotions in older adults: Mood disorders, anxiety, psychological well-being, and hope. In R. L. Kane & R. A. Kane (Eds.), *Assessing older persons* (pp. 129-169). New York: Oxford University Press.
- Jick, T. D. (1979). Mixing qualitative and quantitative methods: Triangulation in action. *Administrative Science Quarterly*, 24, 602-611.
- Kahana, E., Kahana, B., & Young, R. I. (1985). Social factors in institutional living. In W. A. Peterson & J. Quadagno (Eds.), *Social bonds in later life: Aging and interdependence* (pp. 389-418). Beverly Hills, CA: Sage.
- Kahana, E. (1982). A congruence model of person-environment interaction. In M. P. Lawton, P.G. Windley, & T. O. Byerts (Eds.), *Aging and the environment: Theoretical approaches* (pp. 97-121). New York: Springer.
- Kane, R. A. (2001). Long-term care and a good quality of life: Bringing them closer together. *The Gerontologist*, 41(3), 293-304.
- Kane, R. A., Kling, K. C., Bershinsky, B., Kane, R. L., Giles, K., Degenholtz, H. B., Liu, J., & Cutler, L. J. (2003). Quality of life measures for nursing home residents. *Journal of Gerontology: Medical Sciences*, 58(3), 240-248.
- Kane, R. A., & Wilson, K. B. (1993). *Assisted living in the United States: A new paradigm for residential care for frail older persons?* Washington, DC: The American Association of Retired Persons.
- Karls, J. M., & Wandrei, K. E. (1995). Person-in-environment. In R. L. Edwards (Ed.), *Encyclopedia of Social Work* (19th ed., pp. 1818-1827). Washington, DC: NASW Press.
- Kline, R. B. (1998). *Principles and practice of structural equation modeling*. New York: The Guilford Press.
- Kurowski, B. D., & Shaughnessy, P. W. (1983). The measurement and assurance of quality. In R. J. Vogel & H. C. Palmer (Eds.), *Long-term care: Perspectives from research and demonstrations* (pp. 103-132). Washington, DC: Health Care Financing Administration, U.S. Department of Health and Human Services.
- Lawton, M. P. (1975). The Philadelphia Geriatric Center Morale Scale: A revision. *Journal of Gerontology*, 30(1), 85-89.
- Lawton, M. P. (1982). Competence, environmental press, and the adaptation of older people. In M. P. Lawton, P. G. Windley, & T. O. Byerts (Eds.), *Aging and the environment: Theoretical approaches* (pp. 33-59). New York: Springer.

- Lemke, S., & Moos, R. H. (1989). Ownership and quality of care in residential facilities of the elderly. *The Gerontologist*(3), 29, 209-215.
- Lipsey, M. W. (1998). Design sensitivity: Statistical power for applied experimental research. In L. Bickman & D. J. Rog (Eds.), *Handbook of applied social research methods*. (pp. 39-67). Thousand Oaks, CA: Sage.
- Mitchell, J. M., & Kemp, B. J. (2000). Quality of life in assisted living homes: a multidimensional analysis. *Journal of Gerontology: Psychological Sciences*, 55B(2), p117-p127.
- Moos, R. H., & Igra, A. (1980). Determinants of the social environment of sheltered care settings. *Journal of Health and Social Behavior*, 21, 88-99.
- Moos, R. H., & Lemke, S. (1996). *Evaluating residential facilities: The multiphasic environmental assessment procedure*. Thousand Oaks, CA: Sage.
- Morgan, L. A., Gruber-Baldini, A. L., & Magaziner, J. (2001). Resident characteristics. In S. Zimmerman, P. D. Sloane, & J. K. Eckert (Eds.), *Assisted living: Needs, practice, and policies in residential care for the elderly* (pp. 144-172). Baltimore, MD: The Johns Hopkins University Press.
- Murray, H. A. (1938). *Explorations in personality*. New York: Oxford University Press.
- Noelker, L., & Harel, Z. (1978). Predictors of well-being and survival among institutionalized aged. *Gerontologist*, 18(6), 562-567.
- Pearson, V. I. (2000). Assessment of function in older adults. In R. L. Kane & R. A. Kane (Eds.), *Assessing older persons* (pp. 17-48). New York: Oxford University Press.
- Roy, C., Togneri, J., Hay, E., & Pentland, B. (1988). An inter-rater reliability study of the Barthel Index. *International Journal of Rehabilitation Research*, 11(1), 67-70.
- Ryan, G. W., & Bernard, H. R. (2000). Data management and analysis methods. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed.) (pp. 769-802). Thousand Oaks, CA: Sage.
- Salamon, M. J., & Conte, V. A. (1984). *Salamon-Conte Life Satisfaction in the Elderly Scale (LSES)*. Odessa, FL: Psychological Assessment Resources.
- SAS Institute Inc. (1999-2001). *SAS system for windows*. Cary, NC: Author.
- Sikorska, E. (1999). Organizational determinants of resident satisfaction with assisted living. *The Gerontologist*, 39 (4), 450-456.

- Sikorska-Simmons, E. (2001). Development of an instrument to measure resident satisfaction with assisted living. *The Journal of Applied Gerontology, 20* (1), 57-73.
- Spitzer, W. J., Neuman, K., & Holden, G. (2004). The coming of age for assisted living care: New options for senior housing and social work practice. *Social Work in Health Care, 38*(3), 21-45.
- SPSS Inc. (2003). *Amos 5.0.1*. Chicago: author.
- Timko, C., & Moos, R. H. (1991). A typology of social climates in group residential facilities for older people. *Journal of Gerontology: Social Sciences, 46*(3), S160-169.
- Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment, 52*(1), 30-41.
- Zimmerman, S., Sloane, P. D., & Eckert, J. K. (2001). *Assisted living: Needs, practice, and policies in residential care for the elderly*. Baltimore, MD: The Johns Hopkins University Press.

Time Table for the Hartford Scholars Project (September 1, 2005 – August 31, 2007)

Project Timeline	2005				2006												2007								
	S 1	O 2	N 3	D 4	J 5	F 6	M 7	A 8	M 9	J 10	J 11	A 12	S 13	O 14	N 15	D 16	J 17	F 18	M 19	A 20	M 21	J 22	J 23	A 24	
Phase I: Plan and get ready for the Interviews																									
Prepare materials for the interviews	X	X	X	X																					
Modify instruments	X	X	X	X																					
Train research assistants			X	X	X	X	X																		
Phase II: Conduct Interviews																									
Conduct interviews					X	X	X	X	X	X	X	X	X	X	X	X	X								
Data entering and coding					X	X	X	X	X	X	X	X	X	X	X	X	X								
Phase III: Analyze and Write																									
Analyze quantitative and qualitative data														X	X	X	X	X	X	X	X	X			
Write manuscripts														X	X	X	X	X	X	X	X	X	X	X	X
Project Maintenance																									
Review the literature	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Write progress/final reports						X						X						X							X
Consultations (e.g., qualitative research, assisted living)			X	X					X	X										X	X				
Attend national meetings (e.g., GSA, SSWR, CSWE, “kick-off” institute)		X	X		X	X									X		X	X							