SOCIAL INVOLVEMENT OF ELDERLY ADULTS LIVING IN THE COMMUNITY

by

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This thesis is dedicated to my parents, Edward and Janice Bianchi, for their love, understanding, encouragement, and support of my aspirations throughout the years.

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ABSTRACT

A descriptive study was conducted to identify elderly adults' perceptions of the level of their loneliness, elderly adults' perception of the main cause of their loneliness, and ways that elderly adults use to overcome their loneliness.

The sample consisted of 37 elderly adults aged 65 to 93 years. Two tools were used in this study--the revised U.C.L.A. Loneliness Scale and the Subject Interview. The level of loneliness identified in these subjects through the use of the revised U.C.L.A. Loneliness Scale was found to be lower than the level of loneliness identified in previous self-report studies. Eighty percent of the subjects who gave a self-report of being lonely identified losses incurred during old age as the cause of their loneliness, and 75 percent of them stated that doing a solitary activity helped them overcome their loneliness.

The revised U.C.L.A. Loneliness Scale was reliable and had internal consistency with this elderly population. However, construct validity was not confirmed. Moderate Kendall's Tau correlations were found between loneliness and the variables of marital status (0.335), and age (0.255). Lastly, significant correlations were found between loneliness and the variables of marital status (0.012), household composition (0.049), and housing satisfaction (0.035).

CHAPTER 1

INTRODUCTION

Loneliness in the elderly can be defined as the experience of separation from something desired, required or needed. It involves personal suffering associated with a deficit in needed or desired intimacy that gives a sense of belonging, familiarity, repetition, sharing and sameness. In the elderly, loneliness is a state of mind in which hope that there may be interpersonal relationships in one's future life is ruled out of the realm of expectation or imagination. The loneliness of old age can be generated by past, current, or anticipated future situations. Loneliness can occur as a flashback phenomenon when recall of earlier lonely times such as anniversaries of events--marriages, births, deaths, family celebrations and holidays--cause loneliness to reoccur. The discomfort of loneliness may also be generated by a current situation--recent losses, present unsatisfactory relationships, and/or absences of sources of genuine intimacy. Fear of future losses such as loss of health, abilities, and/or significant others can also produce loneliness in the elderly.

In the elderly, no one circumstance or set of circumstances are accountable for the experience of loneliness because it is the product of a process. The experience of loneliness in the elderly can be understood only as a product of physical, psychological, and social losses.

This experience is characterized by varying degress of hopelessness, helplessness, despair, and self-alienation.

In the literature, loss has been identified as the main cause of loneliness in the elderly. This loss can be of an intrinsic or extrinsic nature, and can be defined as the state of being deprived of someone or being without something one has had. Since loss of attachments, abilities, activities, etc. becomes more prevalent as one ages, loneliness is found to be a common problem among the elderly. Some ways to overcome loneliness in the elderly as identified in the literature are: (1) becoming involved in social activities and relationships, and senior centers and programs; (2) maintaining contact with friends and family; and (3) developing new relationships.

Statement of Problem

This study addressed three questions:

1. What is the level of loneliness of elderly adults living in the community of Tucson?
2. What do elderly adults living in the community of Tucson identify as the main cause of their loneliness?
3. What do elderly adults living in the community of Tucson identify as ways of overcoming their loneliness?

Statement of Purpose

The purpose of this study was to identify elderly adults' perceptions of the level of their loneliness, to investigate elderly

adults' perceptions of the main cause of their loneliness, and to identify ways that elderly adults use to overcome their loneliness.

Significance of Problem

Loneliness is a universal human experience. It is most prevalent when one is left alone through separation or death, but it also occurs in those moments when the person feels absolutely isolated or misunderstood or when he remains silent and withdrawn although surrounded by people he loves (Moustakas 1972, p. 49). Loneliness is also known to be a precipitating factor in both primary and recurrent mental disorders and is suspected of being a factor in the causation of psychosomatic disorders and attention-seeking antisocial behavior (Foster 1978).

In today's society, people who are lonely try to keep the mere fact of their loneliness a secret from others because it is not acceptable to say 'I am lonely.' According to Mijuskovic (1977) people are more frightened of being lonely than of being hungry, or being deprived of sleep, or having their sexual needs unfulfilled. Robinson (1971, p. 20) wrote that "suicide is frequently the result of the desperation born from intolerable loneliness."

According to a poll by Harris et al. (1975), loneliness is a serious problem affecting approximately 12 percent of the population 65 years or older or approximately 2.6 million older American adults. In this survey, only fear of crime, poor health, and not having enough

money to live on were considered more serious problems than loneliness. Kivett's (1979) study of the rural elderly found 15.5 percent to be quite often lonely, 41.8 percent to be sometimes lonely, and 42.6 percent to be never lonely.

Two British studies of loneliness in persons 65 years of age or older were reviewed. In the study by Sheldon (1948), 21.7 percent of the subjects suffered from loneliness-8 percent stating they were very lonely and 13.7 percent stating they felt lonely some of the time. Tunstall (1966) found 28 percent of his subjects to be lonely--6.7 percent were often lonely and 21.3 percent were sometimes lonely.

Loneliness is important because it frequently leads to a sense of hopelessness and helplessness. Hyams (1976) stated that loneliness may lead to apathy which in turn leads to self-neglect, and loss of self-respect. According to Munnichs (1964), individual goals and personal happiness are absent in loneliness. The fact that loneliness can be terrifying in old age is shown by a story that ran in a nationally syndicated newspaper. The story described the plight of an old woman who was so lonely that she called a news reporter and asked that anyone, anyone at all write to her (Robinson 1971).

In nursing practice, knowledge about loneliness in the elderly, and of causative factors producing loneliness as identified by the elderly could lead to better identification of individuals at risk for loneliness. Also, knowledge of ways to overcome loneliness as

identified by the elderly could lead to better development of specific programs or interventions to assist the elderly in overcoming their loneliness.

Conceptual Framework

The conceptual framework of this study is based on concepts of loss and loneliness. According to Webster's Third New International Dictionary (1967, p. 1338) loss is "the harm or privation resulting from losing or being separated from something or someone." Loss has also been defined as "any change in the individual's situation that reduces the probability of achieving implicit or explicit goals" (Carlson and Blackwell 1970, p. 73). Pranulis (1972, p. 446) has defined loss as "the act or fact of losing (in various senses) or suffering deprivation; failure to keep a possession; especially unintentional parting of something of value." Thus, in order to experience loss, the object must be significant to the person experiencing the loss, and an emotional investment and an investment of self must be associated with it. Robinson (1971) described significant loss as including death, loss of loved ones by separation, loss of parts of the self, loss of ego image, and loss of objects of great meaning.

Losses in the aged are multiple. Common losses experienced by the aged are physical, psychological, social, and economic losses. According to Schoenberg et al. (1970, p. 5) losses can be of four general types. The first and most profound loss experienced by individuals is the loss of a significant loved or valued person. The second type of

loss is that of losing some aspect of the self, which refers to the over-all mental image a person has of his body or person and includes losses such as loss of health, body function, capabilities or positive self-attitudes. The third loss is loss of external objects or possessions such as loss of home or money. The fourth loss is called developmental loss, which occurs in the process of growth and development. Also, any change can be perceived as a loss (Carlson and Blackwell 1970).

According to Fromm-Reichmann (1959, p. 5) loneliness can be defined as "the states of mind in which the fact that there were people in one's past life is more or less forgotten and the hope that there may be interpersonal relationships in one's future is out of the realm of expectation or imagination." Busse and Pfeiffer (1969, p. 163) stated that loneliness is "the awareness of an absence of meaningful integration with other persons or groups, a consciousness of being excluded from the system of opportunities and rewards in which other people participate." Loneliness may also be thought of as a prolonged state of mental pain or anguish caused by a sense of separation. It is a feeling of being a nonentity, or nothingness (Polcino 1979). The common theme seen in loneliness is that of no human interaction or unsatisfying interaction (Ferreira 1962; Francis 1976; Kivett 1979; Moustakas 1972; Roberts 1978).

Weiss (1973, p. IX) described two sorts of loneliness: (1) emotional isolation, which results from the loss or lack of a truly intimate tie with a spouse, lover, parent or child, and (2) social

isolation, which is the consequence of lacking a network of involvements with peers of some sort such as kinfolk, neighbors, fellow hobbyists or friends. Advanced age brings an individual into situations that risk both types of loneliness. Emotional isolation is likely to occur because bereavement becomes more likely at this time. Also, social isolation is likely because retirement, infirmity, and depletion of energy lead to loss of friends. The loss of a spouse can bring about the loneliness of both social and emotional isolation. Rubins (1964) and von Witzleben (1958) have labelled the loneliness that results from the loss of a loved object--secondary loneliness. The feeling of being alone or helpless in the world is existential or primary loneliness (von Witzleben 1958).

Loneliness often follows a major loss. According to Tunstall (1966), the propensity to feel lonely increases with age and with two age related factors--loss of a spouse and loss of physical capacity. Losses which have been identified to have a relationship in generating loneliness in the elderly are: loss of a spouse, relative and/or a friend (Birren et al. 1977; Carnevali and Patrick 1979; Kalish 1977), loss of residence (Carnevali and Patrick 1979; Kalish 1977), loss of physical capacity (Birren et al. 1977; Brocklehurst 1973; Tunstall 1966), loss of mobility, vision, and/or hearing (Brocklehurst 1973; Burnside 1970), loss of health (Carnevali and Patrick 1979; Kivett 1979), loss of income (Carnevali and Patrick 1979), and loss of employment (Tanenbaum 1967). Thus, according to Botwinick (1978), and Busse

and Pfeiffer (1969), loss, not isolation, has the closer relationship to loneliness.

CHAPTER 2

REVIEW OF LITERATURE

This chapter contains a review of the literature pertaining to loss and loneliness in the elderly. Articles were reviewed in the fields of nursing, psychology, medicine, sociology, and gerontology.

Loneliness in the Elderly

Harris et al. (1975), in a survey of 2,400 people 65 years of age or older found that 12 percent of them considered loneliness a very serious problem when shown a list of possible problems and asked how serious each one was for them personally. In his study, loneliness was correlated with variables of income, race, educational level, sex, and age. Elderly persons with low incomes were found to be lonelier than those with adequate incomes. The percentage of people experiencing loneliness with incomes under $3,000, $3,000 to $6,999, $7,000 to $14,999, and $15,000 and over per year were 23 percent, 11 percent, 4 percent, and 4 percent, respectively. In this study, the percentage of blacks and whites who identified loneliness as a very serious problem was 23 percent and 11 percent, respectively. By educational level, the percentage of people experiencing loneliness as a very serious problem were individuals who had not graduated from high school, 15 percent; with high school graduation or some college education, 9 percent; and with college graduation, 6 percent. By sex,

10 percent of the male subjects and 15 percent of the female subjects identified loneliness as a very serious problem. By age, 10 percent of individuals age 65 to 69, 13 percent of individuals aged 70 to 79, and 17 percent of individuals aged 80 or over identified loneliness as a very serious problem.

In a study of loneliness, isolation, and social relations in 203 non-institutionalized people aged 65 and over in the Netherlands, Munnichs (1964) found that loneliness occurred when an aged person experienced dissatisfaction as a result of his actual social relations or their absence. Forty-five percent of the isolated people in this study were lonely and a significant relationship was found between loneliness and isolation.

Woodward, Gingles, and Woodward (1974) did a study of loneliness in the elderly as related to housing. In this study of 390 non-institutionalized adults aged 60 or over, it was found that neither the type of housing nor the location in urban or rural areas contributed to feelings of loneliness, and that the subjects who were happy in whatever situation they lived experienced significantly (.01) less lonely feelings than those who were unhappy. The researchers concluded that the people in this sample who were unhappy with their housing situation might have been lonely because: (1) they felt that they would prefer another living arrangement; (2) they were frustrated with the fact that they could not change their situation; (3) they were unhappy where they were but were unable to change the situation; or (4) they had personalities that would make them unhappy and lonely no matter where they lived.

Sheldon's (1948) study included 460 people over the age of 60 who lived in England. He found that those experiencing loneliness tended to be widowed or single people, to be living alone, to be in their 80's, to be men rather than women, and to be relatively infirm. Loneliness of some degree affected approximately 20 percent of the sample population. The results showed that: (1) women are almost three times as likely as men to suffer from intermittent loneliness, (2) men are more apt than women to suffer from severe degrees of loneliness, and (3) the maximum incidence of loneliness for both sexes is at the most advanced ages.

Tunstall's (1966) study of 538 elderly people, found that the incidence of loneliness in both sexes increased both with age and with those living alone. Eleven percent of the married males aged 65 to 69 years and 30 percent of the married males aged 80 years or older were found to be 'often' or 'sometimes' lonely. The percentage of married women who were 'often' or 'sometimes' lonely in these same age brackets were 23 percent and 35 percent, respectively. Among both elderly men and women it was found that those who lived alone were about four times more likely to be 'often' lonely than those who lived with others. Over half of both old men and women who lived alone were found to be 'often' or 'sometimes' lonely. Also, being 'often' lonely was found to be nearly twice as common among old women as among old men. However, the single state did not predispose old people to loneliness since 28 percent of the single group and 28 percent of all old people were 'often' or 'sometimes' lonely.

Loss and Loneliness

Kivett's (1979) study of 380 persons age 65 to 99 years who lived in a rural setting found that frequent loneliness was associated with widowhood, poor vision and self-rated health, problems with transportation, and frequent telephone use. The profile of the 'quite often' lonely person was found to be that of a widowed woman who had incurred major physical losses such as health and eyesight. Adults who were more likely to say they were 'sometimes' rather than 'quite often' lonely were divorced, widowed, or never married women who had good vision and physical mobility, frequent social activity, and frequent telephone use. These adults also had a person in whom they confided. In this study, adequacy of hearing, frequency of visits with friends and neighbors, educational level, and adequacy of income were found to be of no significance in distinguishing between the 'quite often' lonely and the 'almost never' lonely groups. The data also indicated that the way in which older adults perceived their health had more relative importance to their feelings of loneliness than did any actual limitations in their physical mobility.

Sheldon (1948) found that loss of spouse and capacity for free movement had a relationship to loneliness. Almost all the elderly men and women who were suffering from severe loneliness had been widowed. In regards to capacity for free movement the bedfast subjects had the least degree of loneliness with a figure of 8.5 percent compared with 21.7 percent for the whole sample. This was presumably due to the bedfast subjects' constant human contact derived from their nursing care

needs. The subjects restricted to their home had the highest incidence of loneliness, exceeding the sample as a whole. This occurred because they were sufficiently well to be left alone all day but were not capable of sufficient physical activity to keep themselves fully occupied. It was found that as the degree of movement improved the likelihood of loneliness decreased.

Tunstall (1966), in his study in England of 538 people age 65 and older, found that when elderly people were asked about the cause of their loneliness, the most common answer was widowhood. The other answers included being alone, living alone, seldom going out, being housebound, being ill, and being blind. When the study population was asked if they felt lonely for someone in particular only 10 percent felt lonely for a living person, and 66 percent felt lonely for a dead spouse. In this study 52 percent of recently widowed women, 39 percent of women widowed 20 years or more, 28 percent of single women, and 22 percent of married women were lonely. Among the widowed population, widowed childless old people were more likely to be lonely than widowed persons who had seen a child recently.

Tunstall (1966) found that 65 percent of the individuals who were socially isolated were found to be 'often' or 'sometimes' lonely as compared to only 14 percent of the people with high social contact. Loneliness was also found to increase with increasing physical incapacity. Individuals with no incapacity made up 13 percent and 25 percent of the 'often' or 'sometimes' lonely men and women, respectively. However, with severe incapacity the figures jumped to 43 percent and

52 percent, respectively. Being housebound caused 38 percent of old men and 48 percent of old women to be lonely, whereas only 16 percent of fully mobile men and 29 percent of fully mobile women were lonely.

Shanas et al. (1968), in her cross-national survey of elderly people found that widowhood and poor self-assessment of health had a relationship with loneliness. The results on widows showed that 13 percent of them described themselves as often lonely and 30 percent of them described themselves as sometimes lonely, and that this proportion was even higher among the most recently bereaved. In this study, the loneliest and most isolated people appeared to be widowed persons who had no children and lived alone. Self-assessment of health was found to affect the elderly persons' feelings of loneliness. Among the elderly women who assessed their health as good, only 5 percent said they often felt lonely as compared with 17 percent of those who assessed their health as poor. The corresponding figures for elderly men were 2 percent and 16 percent, respectively. The researchers made the following conclusions from their study: (1) the strong relationship between self-judgment of health and the index of capacity suggests that it may be the feelings of poor health that brings with it the feelings of loneliness, and (2) loss not isolation has the closer relationship to loneliness.

The results of Munnichs' (1964) study showed that, among the 418 elderly people, subjective loneliness increased in old age because friends and relatives died, and mobility and level of activity decreased. Lopata (1973), in a study of 301 widows age 50 or older

living in the Chicago area, found that 50 percent of them mentioned loneliness as the greatest problem of their present situation, and 33 percent considered it as a second problem. Clark and Anderson (1967), in their study of 445 elderly people found that loneliness was a major problem. These researchers found that bereavement, being housebound, and immobility resulted in loneliness.

Carnevali and Patrick (1979) found that risk of loneliness increased with loss of a spouse, companion, sibling or child; being housebound; changing residence; loss of usual mode of transportation; having an illness or disability; and by having an inadequate income. The loss of siblings tended to produce greater loneliness than the loss of a child. It was also found that any change in locale or type of living for the older person tended to disrupt established patterns of interaction and contact and increased his risk of loneliness.

Ways to Overcome Loneliness

There were no studies cited in the literature that identified what the elderly perceive as ways of overcoming their loneliness. However, numerous researchers studying loneliness in the elderly have made suggestions. Kivett (1979), in her study of 418 elderly people suggested interventions in three overall areas: social activities, health and vision, and transportation. Tunstall (1966), in his study of 538 elderly people found that half of all widowed people could not think of a way to overcome their loneliness. However, in general, the 'often' lonely people in this study thought their loneliness could be reduced

or eliminated by either reunion with separated persons or things or by reinvestment of one's energies into new persons and things.

Other researchers have suggested ways for the elderly to overcome their loneliness. Botwinick (1978) and Busse and Pfeiffer (1969) found that, for those living alone, visits to and by children helped in coping with loneliness. Carnevali and Patrick (1979) found that elderly males and females who were lonely for someone who was deceased found relief of loneliness with their friends and family. Conti (1970) found that inclusion in a group was not the answer to everyone's loneliness and that a one to one relationship was frequently needed. Kalish (1977) stated that loneliness could be alleviated in the elderly by their attending senior centers and programs. Rosenblatt (1972) indicated that senior centers help lonely elderly people find social outlets through workshops, discussion groups, and other activities. Robinson (1971) emphasized the need for group projects for lonely elderly individuals in a nursing home or an extended care facility. Lastly, Kunkel (1970) found that resocialization for nursing home residents helped approach the problem of loneliness by providing companionship.

The review of the literature indicated a relationship between loss and loneliness, and some variables were identified to be significant in producing loneliness in the elderly. Also, some ways of overcoming loneliness were identified by both the elderly and the investigators.

CHAPTER 3

METHODOLOGY

This chapter includes the design, the study sample, the study setting, the method of data collection, the measurement tools, and the data analysis used in this study.

Study Design

A descriptive study was designed to identify: (1) the level of loneliness of elderly adults living in the community of Tucson; (2) the elderly adults' perception of the main cause of their loneliness; and (3) the elderly adults' perception of ways to overcome their loneliness. This study also attempted to determine if a relationship existed between the level of loneliness and the study population's characteristics of: age, sex, race, marital status, income, educational level, length of time of widowhood, contact with and loss of children, siblings and/or close friends, household composition, self-assessment of health, hearing difficulty, visual difficulty, mobility, length of time in community and at current address, satisfaction with housing, and past and present social activities.

Study Sample

The study sample consisted of 37 elderly persons living in a southwestern city in the United States. The subjects were selected

from those persons who attended the Senior Now Generation's nutrition-socialization programs. The convenience sample included 37 elderly people who agreed to participate in the study and who met the following criteria: (1) were at least 65 years of age, (2) were oriented to time, place, and person, (3) were able to speak, read and write English, and (4) were living in the community. Individuals who had visual difficulties, but met the other subject criteria of this study were included, and the questionnaires and consent were read to them.

Study Setting

The data was collected in four sites of a nutrition-socialization program for the elderly located in the central, east, and west part of a city in the southwestern United States. The central city site served mainly the Jewish community and was located in a middle class residential area. The west city site served mainly the lower socio-economic Mexican-American community. The two east city sites were in middle class residential areas on the outskirts of the city. The programs were run from 9 A.M. to 2 P.M. Monday through Friday at all of the sites. Permission for use of these sites was obtained from its board of directors by submitting both an abstract explaining the study and the questionnaires to be used.

Method of Data Collection

Subjects were individually approached at the nutrition-socialization program sites. The investigator introduced herself to each

subject and explained the nature, purpose, demands, and benefits of the study. Subjects who agreed to participate in the study and met the study's criteria were given the Subject's Consent form to sign. After the Subject's Consent (Appendix B) was obtained, the subjects were given the revised U.C.L.A. Loneliness Scale (Subject Questionnaire) to complete (Appendix C). Upon completion of the Subject Questionnaire by the subjects, the subjects were interviewed by the investigator using the Subject Interview (Appendix D). Questions 1 through 37 and 42 through 44 of this interview form pertained to demographic variables, question 38 was the subject's statement of his or her loneliness, question 39 investigated the subject's perception of the cause of his or her loneliness, question 40 investigated the subject's perception of ways to overcome his or her loneliness, and question 41 investigated the subject's perception of how to prevent his or her loneliness. A coding system with each subject receiving an identification number was used on the interview form and questionnaire. The time involved in participating in the study was 38 minutes per subject.

Measurement Tools

Two tools were utilized in this study: (1) the revised U.C.L.A. Loneliness Scale (Appendix C), and (2) the Subject Interview (Appendix D).

Revised U.C.L.A. Loneliness Scale

The Revised U.C.L.A. Loneliness Scale is a unidimensional self-report measure consisting of 20 items with an equal number of positive

and negative items and a 4 point scale (Russell et al. 1980). The original U.C.L.A. Loneliness Scale was developed by Russell et al. (1978), and consisted of 20 negatively worded items. The internal consistency (alpha coefficient) of this original scale was 0.96, and a test-retest correlation over a two month period was 0.73 (Russell et al. 1978). All of the testing done with this original scale has been done with college students.

Concurrent and preliminary construct validity for the original scale were identified by correlations with self-reports of current loneliness and related emotional states, and by lonely students who volunteered to be participants in a three week clinic discussion program on loneliness (Russell et al. 1978). The correlation between the self-report question about current loneliness and the loneliness scale was 0.79. The content of the individual items provided the face validity for the scale. The following correlations (r) between the original U.C.L.A. Loneliness Scale and the other scales are low: 0.40 with the Beck Depression Inventory and 0.50 with the Coppersmith Measure of Self-esteem (Russell et al. 1980). However, based on these findings, the developers of this scale concluded that, conceptually, loneliness might occur with depression and low self-esteem, and these findings supported the validity of this scale.

The revised U.C.L.A. Loneliness Scale has been tested for both reliability and validity. However, it has been previously used only with college students. The alpha coefficient was 0.94 in two studies

testing its reliability. Also, in these two studies, the correlation between the revised and the original scales was found to be 0.91 in both instances (Russell et al. 1980). Discriminant validity was assessed in one study of the revised scale by examining the correlation of loneliness scores with mood and personality measures and the self-labelling loneliness index. The correlations were: 0.705 with the Self-labelling Loneliness Scale, 0.505 with the Beck Depression Inventory, 0.359 with the State-Trait Anxiety Inventory, -0.493 with the Texas Social Behavior Inventory, -0.452 with the Measure of Affiliative Tendencies, 0.276 with the Sensitivity to Rejection Measure, -0.203 with the Social Desirability Inventory, -0.457 with the Introversion-Extroversion Scale, -0.001 with the Lie Scale, and -0.342 with the Assertiveness Scale. The conclusion was made that the U.C.L.A. Loneliness Scale correlated higher with other measures of loneliness than with the measures of mood and personality variables that were examined (Russell et al. 1980). Concurrent validity for the revised loneliness scale was indicated by demonstrating that lonely people reported experiencing emotions theoretically linked to loneliness and did not report experiencing emotions unrelated to loneliness.

For each of the 20 statements in the revised U.C.L.A. Loneliness Scale, the respondent has one of four choices: never, rarely, sometimes or often. For negative items, the respondent's choices are scored as never (1), rarely (2), sometimes (3), and often (4). For the positive items, the respondent's choices are scored as never (4), rarely (3),

sometimes (2), and often (1). The individual scores on each item are then added together to get a total score for this scale. The possible score range for this scale is from 20 to 80. According to Russell et al. (1980), a score to 56 or more indicates loneliness and a score of 28 or less indicates no loneliness.

The revised U.C.L.A. Loneliness Scale was used in this study because of the two loneliness scales that were reviewed this scale: (1) had better reliability and validity statistics and (2) was more appropriate to use for the purpose of this study and with an elderly population.

Subject Interview

The Subject Interview with its 44 questions was designed by the investigator to collect data regarding the subjects' characteristics and the subjects' perception of the cause of their loneliness and ways to prevent it and overcome it. The subjects' characteristics included the following: age, sex, race, marital status, income, educational level, length of time of widowhood, contact with and loss of children, siblings, and/or close friends, household composition, self-assessment of health, hearing difficulty, visual difficulty, mobility, length of time in community and at current address, satisfaction with housing, and past and present social activities. No reliability or validity testing was done on this instrument.

Human Subjects

This study was approved by the Human Subjects Committee at The University of Arizona before the study was begun (Appendix A). Potential subjects were told that participation was voluntary and that they were free not to participate. They were assured that participating or not participating would not affect their relationship with their caregivers. All names of participants in the study were kept confidential and did not appear on any of the questionnaires. Participants were assured that the data collected would be used only for the purpose stated in the study. The participants were seen only once at which time the investigator was available to answer any questions about the study.

Data Analysis

To demonstrate reliability of the revised U.C.L.A. Loneliness Scale in the elderly, Cronbach's alpha coefficient was used. The alpha coefficient is a means of estimating the internal consistency of a set of items making up a scale (Costner 1974).

Frequency distributions were done on the data of the Subject Interview tool to obtain information about the following subjects' characteristics: age, sex, race, marital status, income, educational level, length of time of widowhood, contact with and loss of children, siblings, and/or close friends, household compositon, self-assessment of health, hearing difficulty, visual difficulty, mobility, length of

time in community and at current residence, satisfaction with housing, and past and present social activities. A point by serial correlation was also done for the descriptive data in this scale. Lastly, construct validity was tested by comparing the subjects' response to question 38 on loneliness in the Subject Interview tool to the subjects' score on the U.C.L.A. Loneliness Scale.

CHAPTER 4

PRESENTATION AND ANALYSIS OF DATA

The analysis of the data collected for this study is presented in this chapter. The characteristics of the sample and data related to the research questions and measurement tools are discussed.

Characteristics of the Sample

Demographic Characteristics

The sample population consisted of 37 subjects with a mean age of 73.0 years and a range of 65 to 93 years. The frequency distributions of age by race and sex are presented in Table 1. Sixty-two percent of the subjects were in the 65 to 74 age group that included 6 (66.7 percent) of the males and 17 (60.7 percent) of the females. The majority of the subjects (17 or 86.5 percent) were Caucasian, 3 (8.1 percent) were Mexican-American, and 2 (5.4 percent) were Black.

The frequency distribution of the subjects' income by years of schooling is shown in Table 2. The mean number of years of schooling completed was 10.8 years. Seventeen (45.9 percent) of the subjects had at least a high school diploma. The range of years of schooling completed by the subjects was 4 to 16 years. The mean income for the group (n = 31) was in the $3,000 to $6,999 bracket. Only 6 (16.2 percent) of the subjects had incomes of over $10,000.

Table 1. Frequency Distributions of Age by Race and Sex (N = 37)

Age Groups	Race											
	Caucasian				Mexican-American				Black				Total	
	Male		Female		Male		Female		Male		Female			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
65-69	4	10.8	4	10.8			2	5.4			2	5.4	12	32.4
70-74	2	5.4	8	21.7			1	2.7					11	29.8
75-79			4	10.8									4	10.8
80-84	2	5.4	5	13.5									7	18.9
85-89	1	2.7											1	2.7
90-93			2	5.4									2	5.4
Total	9	24.3	23	62.2			3	8.1			2	5.4	37	100.0

Table 2. Frequency Distribution of Income by Years of Schooling (N = 37)

Income	Years of Schooling												Total	
	4-6		7-8		9-11		12		13-14		15-16			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Under $3,000	2	5.4			2	5.4	1	2.7			1	2.7	6	16.2
$3,000-$6,999			4	10.9	6	16.2	6	16.2	2	5.4	1	2.7	19	51.4
$10,000-$14,999							1	2.7	2	5.4	1	2.7	4	10.8
$15,000 or more	1	2.7					1	2.7					2	5.4
No response			3	8.1	2	5.4			1	2.7			6	16.2
Total	3	8.1	7	19.0	10	27.0	9	24.3	5	13.5	3	8.1	37	100.0

Mean number of years of schooling = 10.8

Mean income = $3,000 to $6,999 (N = 31)

Data was also collected on the subjects' marital status and whether they were living alone or with others. As shown in Table 3, 20 (54.1 percent) of the subjects were widowed, 14 (37.8 percent) were married, and 3 (8.1 percent) were divorced. The mean number of years of widowhood for the widowed group (n = 20) was 14.3 years with the range being from 2 to 39 years. Fourteen (37.9 percent) of the subjects were living alone, 14 (37.8 percent) were living with their spouse, and the remainder were living in other arrangements. In regards to housing satisfaction, 19 (51.4 percent) were very satisfied with their current housing situation, 9 (24.3 percent) were satisfied, 7 (18.9 percent) were not too satisfied, and 2 (5.4 percent) were not at all satisfied. All 9 subjects who stated they were dissatisfied with their housing gave the physical condition of the house as the reason for their dissatisfaction. Thirty-three (89.2 percent) of the subjects were year round residents of Tucson. The mean number of years these subjects had lived in Tucson was 16.0 years with a range of 1 to 74 years. The mean number of years these subjects lived at their current address was 7.9 years with a range of 1 to 35 years. Four (10.8 percent) of the subjects were non-residents of Tucson who each spent 3 months of each year in Tucson and did not return to the same address each year.

Physical Characteristics

The frequency distributions of subjects' visual, hearing and mobility difficulties by self-reported health status are presented in Table 4. Eighteen (48.6 percent) of the subjects identified themselves

Table 3. Frequency Distribution of Living Situation by Marital Status (N = 37)

Living Situation	Marital Status										Total	
	Married (N = 14)				Widowed* (N = 20)				Divorced (N = 3)			
	Male		Female		Male		Female		Male		Female			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Alone					1	2.7	11	29.8			2	5.4	14	37.9
Spouse	7	18.9	7	18.9									14	37.8
Child							5	13.5			1	2.7	6	16.2
Relative							1	2.7					1	2.7
Other					1	2.7	1	2.7					2	5.4
Total	7	18.9	7	18.9	2	5.4	18	48.7			3	8.1	37	100.0

*Mean number of years widowed = 14.3

Table 4. Frequency Distribution of Visual Difficulty, Mobility Difficulty, Difficulty Hearing One Person, and Difficulty Hearing in a Group by Self-Reported Health Status (N = 37)

	Self-Reported Health Status								Total	
	Excellent (N = 6)		Good (N = 12)		Fair (N = 18)		Poor (N = 1)			
	N	%	N	%	N	%	N	%	N	%
Visual difficulty										
No difficulty	4	10.8	9	24.3	10	27.0	1	2.7	24	64.9
A little difficulty	1	2.7	2	5.4	4	10.8			7	18.9
A lot of difficulty	1	2.7	1	2.7	4	10.8			6	16.2
Mobility difficulty										
Yes	2	5.4	1	2.7	5	13.7			8	21.6
No	4	10.8	11	29.7	13	35.1	1	2.7	29	78.4
Difficulty hearing one person										
No difficulty	5	13.5	9	24.3	12	32.4	1	2.7	27	73.0
A little difficulty	1	2.7	2	5.4	4	10.8			7	18.9
A lot of difficulty			1	2.7	2	5.4			3	8.1
Difficulty hearing in a group										
No difficulty	5	13.5	9	24.3	11	29.7			25	67.6
A little difficulty	1	2.7	1	2.7	5	13.5	1	2.7	8	21.6
A lot of difficulty			2	5.4	2	5.4			4	10.8
Total	6	16.2	12	32.4	18	48.6	1	2.7	37	100.0

as being in excellent to good health and 19 (51.3 percent) stated they were in fair to poor health. Twenty-four (64.9 percent) of the subjects had no visual difficulty. Of the 13 subjects who had some visual difficulty only 2 (15.4 percent) were unable to read a newspaper or book. None of the subjects were totally blind. Eight (21.6 percent) of the subjects had difficulty with mobility. Of this group, 6 (75.0 percent) of the subjects stated transportation problems made mobility difficult, and 2 subjects (25.0 percent) stated difficulty walking made mobility difficult. Twenty-seven (73.0 percent) of the subjects had no difficulty hearing one person speak and 25 (67.6 percent) of the subjects had no difficulty hearing in a group. Only 2 (5.4 percent) of the subjects wore hearing aids with the mean number of years of hearing aid use being 6.5 years. None of these subjects had trouble using their hearing aids. An unexpected finding was that as the self-reported health status level declined the number of subjects in the categories of no visual difficulty, no difficulty with mobility, no difficulty hearing one person speak, and no difficulty hearing in a group increased.

Social and Family Characteristics

Information about relationships with children, siblings, and close friends are now presented. Thirty-two (86.5 percent) of the subjects had living children, 4 (10.8 percent) were childless, and 1 (2.7 percent) had no living children. Of the 32 subjects who had living children, 18 (56.2 percent) had at least one child living in Tucson. The mean number of children that were living in Tucson was

1.4 with the range being from 1 to 8. Fifteen (40.5 percent) of the subjects had no children living in Tucson, and 14 (93.3 percent) of these subjects corresponded with their children.

Twenty-seven (73.0 percent) of the subjects had living siblings, 2 (5.4 percent) had no siblings, and 8 (21.6 percent) had no living siblings. Of the 27 subjects who had living siblings, 4 (14.8 percent) had at least one sibling living in Tucson. The mean number of siblings living in Tucson was 2.7 with the range being from 2 to 4. Twenty-three (62.2 percent) of the subjects had no siblings living in Tucson, but all of these subjects stated that they corresponded with their siblings.

Thirty-three (89.2 percent) of the subjects stated they had close friends, and only 4 (10.8 percent) had no living close friends. Of the 33 subjects who had close friends, 25 (67.6 percent) had close friends living in Tucson. All of the 8 (21.6 percent) subjects with no close friends living in Tucson corresponded with them.

The frequency distributions of contact with children, siblings, and friends are presented in Table 5. As shown, 30 (81.0 percent) subjects had contact with their close friends at least once a week, 24 (67.9 percent) had contact with their children at least once a week, and 10 (27.0 percent) had contact with their siblings at least once a week. These interactions included personal, written, and/or telephone contacts.

The frequency distributions of activities done by the subjects when they were between 20 and 39 years of age by a comparison of

Table 5. Frequency Distributions of Contact with Children, Siblings, and Friends

	N	Percent
Contact with children		
Daily	12	32.4
Few times per week	4	10.9
Once a week	8	21.6
Bimonthly	5	13.5
Monthly	1	2.7
6 times per year	1	2.7
Not applicable	6	16.2
Total	37	100.0
Contact with siblings		
Daily	1	2.7
Few times per week	3	8.1
Once a week	6	16.2
Bimonthly	3	8.1
Monthly	10	27.1
3 to 6 times per year	4	10.8
Not applicable	10	27.1
Total	37	100.0
Contact with friends		
Daily	13	35.1
Few times per week	10	27.0
Once a week	7	18.9
Monthly	1	2.7
3 to 6 times per year	2	5.5
Not applicable	4	10.8
Total	37	100.0

activities done in their 20's and 30's to present activities are presented in Table 6. Fifteen (40.5 percent) of the subjects are doing more activities currently and 20 (54.1 percent) are doing less currently than they were in their 20's and 30's. Twenty-two (59.5 percent) of the subjects participated in social activities in their 20's and 30's. Of this group, 7 (31.8 percent) do more social activities currently, 1 (4.5 percent) do the same amount of social activities, and 14 subjects (63.7 percent) are involved in fewer social activities today than they were in their 20's and 30's.

In Table 7, the frequency distributions of activities the subjects did from age 20 to 39 years by activities still done today are presented. Twenty-four subjects (64.9 percent) stated they participated in social activities in their 20's and 30's. Of this group, 19 (79.2 percent) of the subjects are still participating in social activities. Lastly, 9 (24.3 percent) of the subjects are not currently doing any of the activities they did when they were in their 20's and 30's.

In response to a question regarding new activities they are presently doing, 13 (35.1 percent) of the subjects are involved in crafts, 11 (29.8 percent) are involved in social activities, 10 (27.0 percent) are involved in no new activities, and 3 (8.1 percent) are involved in solitary sports.

Loneliness Variables in the Subject Interview Tool

In Table 8, the frequency distributions of the subjects' idea why lonely, ways to overcome loneliness, and ways to prevent loneliness

Table 6. Frequency Distribution of Activities Done in 20's and 30's by Comparison of Activities Done in 20's and 30's to Present Activities

Activities Done in 20's and 30's	Comparison of Activities Done 20's and 30's to Present Activities: More Currently N	%	Same Amount N	%	Less Currently N	%	Total N	%
Group sports	2	5.4	1	2.7	1	2.7	4	10.8
Solitary sports	2	5.4			2	5.4	4	10.8
Social activities	7	18.9	1	2.7	14	37.9	22	59.5
Crafts	3	8.1			2	5.4	5	13.5
None	1	2.7			1	2.7	2	5.4
Total	15	40.5	2	5.4	20	54.1	37	100.0

Table 7. Frequency Distributions of Activities Done from Age 20 to 39 Years by Activities Still Done Today (N = 37)

Activities Done from Age 20 to 39 Years	Activities Still Done Today										Total	
	Group Sports		Solitary Sports		Social Activities		Crafts		None			
	N	%	N	%	N	%	N	%	N	%	N	%
Group sports	2	5.4									2	5.4
Solitary sports			3	8.1							3	8.1
Social activities					19	51.4			5	13.5	24	64.9
Crafts							4	10.8	2	5.4	6	16.2
None									2	5.4	2	5.4
Total	2	5.4	3	8.1	19	51.4	4	10.8	9	24.3	37	100.0

Table 8. Frequency Distributions of Subjects' Idea Why Lonely, Ways to Overcome Loneliness and Ways to Prevent Loneliness by Self-Reported Loneliness (N = 37)

	Self-Reported Loneliness						Total	
	Sometimes (N = 10)		Rarely (N = 9)		Never (N = 18)			
Aspects of Loneliness	N	%	N	%	N	%	N	%
Idea why lonely								
Loss of spouse	1	2.7	2	5.4	1	2.7	4	10.8
Loss of relatives	4	10.8					4	10.8
Loss of income			2	5.4			2	5.4
Loss of mobility	1	2.7					1	2.7
Being alone	3	8.1	1	2.7			4	10.8
Relocation			1	2.7			1	2.7
No idea	1	2.7	3	8.1			4	10.8
Not applicable					17	46.0	17	46.0
Ways to overcome loneliness								
Solitary activity	7	18.9	7	18.9	1	2.7	15	40.5
Call relative	1	2.7					1	2.7
Go out	1	2.7	2	5.4			3	8.1
Do nothing	1	2.7					1	2.7
Not applicable					17	46.0	17	46.0
Ways to prevent loneliness								
Remarry					1	2.7	1	2.7
Get busy with solitary activity	5	13.6	4	10.8	3	8.1	12	32.5
Be with significant others	3	8.1	2	5.4	7	18.9	12	32.4
No idea	2	5.4	3	8.1			5	13.5
Not applicable					7	18.9	7	18.9
Total	10	27.1	9	24.3	18	48.6	37	100.0

by self-reported loneliness are presented. Nineteen (51.4 percent) of the subjects were sometimes to rarely lonely and 18 (48.6 percent) stated they were never lonely. In response to their idea why they were lonely, 8 (21.6 percent) of the subjects named loss of spouse or relatives. In response to ways to overcome loneliness, 15 (40.5 percent) of the subjects stated that doing a solitary activity such as reading, walking, watching television, listening to music, writing letters or crocheting helped to alleviate their loneliness. Twenty-four (64.9 percent) of the subjects said that doing a solitary activity or being with significant others were ways they used to prevent loneliness.

U. C. L. A. Loneliness Scale

Level of Loneliness and Reliability and Construct Validity

The subjects' scores on the U. C. L. A. Loneliness Scale ranged from 21 to 60. The mean score was 36.3. The number and percent of subjects in each category of the U. C. L. A. Loneliness Scale are shown in Figure 1. Seven subjects (18.9 percent) were in the not lonely group (rarely to sometimes lonely), and 1 (2.7 percent) were in the lonely group (often lonely).

The reliability of the U. C. L. A. Loneliness Scale was tested using Cronbach's alpha coefficient. The standardized alpha coefficient for all 20 items of this scale was 0.83, which indicates that this scale is reliable to use with an elderly population and that it has

internal consistency. The item to total scale statistics for this scale showed that only if item 4 was deleted would the alpha coefficient for this scale be improved. The alpha coefficient would then be 0.84.

To determine construct validity, the subjects' scores on the U. C. L. A. Loneliness Scale were compared to their answers to question 38 on the Subject Interview Tool, which asked each subject to report how often he felt lonely--'never,' 'rarely,' 'sometimes' or 'often.' In Figure 1, the number of subjects and levels of loneliness are compared for both the subjects' U. C. L. A. loneliness score groupings and the subjects' self-reported loneliness groupings. Seven (18.9 percent) of the subjects scored in the 'never' lonely (not lonely) group on the U. C. L. A. Loneliness Scale and 17 (46.0 percent) stated they were 'never' lonely. Twenty-nine subjects (78.4 percent) scored in the 'rarely' to 'sometimes' lonely (intermediate loneliness) group on the U. C. L. A. Loneliness Scale and 19 (51.3 percent) stated they were 'rarely' or 'sometimes' lonely. One subject (2.7 percent) scored in the 'often' lonely (lonely) group on the U. C. L. A. Loneliness Scale and 1 (2.7 percent) stated she was 'often' lonely. Kendall's Tau correlation coefficient between the self-reported loneliness question and the U. C. L. A. Loneliness Scale was not significant (0.08). Construct validity for the U. C. L. A. Loneliness Scale was not confirmed in this elderly population.

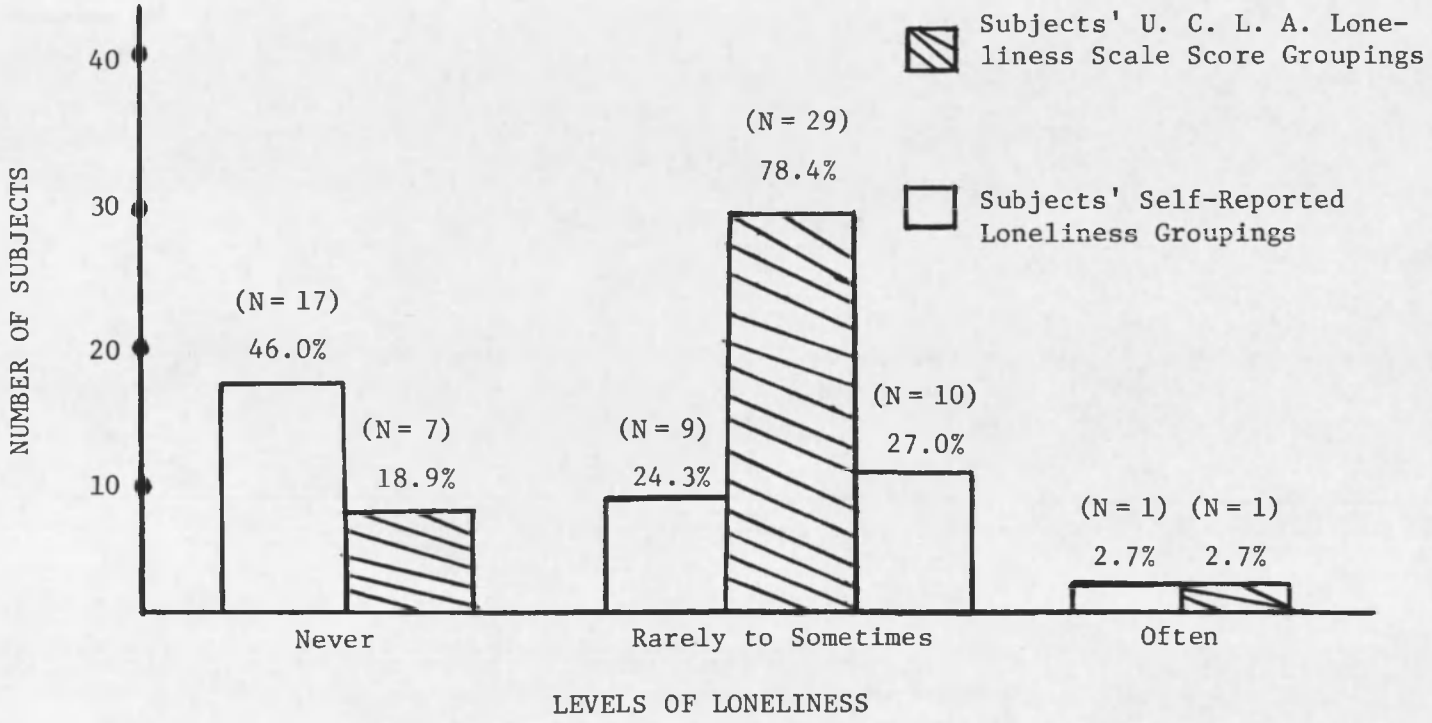

Figure 1. Comparison of the Number and Percentage of Subjects in Each Category Using Both the Subjects' U. C. L. A. Loneliness Scores and Their Self-Reported Loneliness Levels

Relationships between the Subjects' Characteristics and Loneliness

Kendall's Tau correlation coefficients were computed between a number of the subjects' characteristics and loneliness to determine if there was a relationship between them. The Kendall's Tau correlation coefficient was used in this study because it is appropriate for non-parametric correlations and ordinal level variables with a large number of categories on each of the variables. It provides a summary of the strength of a relationship and a test of its significance (Nie et al. 1975). For the purpose of this study, a weak relationship existed if the correlation coefficient was less than 0.25; a moderate relationship existed if the correlation coefficient was 0.25 to 0.50; and with a correlation coefficient between 0.50 to 1.00 a strong relationship existed.

Weak relationships (Kendall's Tau correlation less than 0.25) were found between loneliness and the following variables: sex, race, income, educational level, length of time of widowhood, contact with and loss of children, siblings and/or close friends, household composition, self-assessment of health, difficulty with hearing, vision and mobility, length of time in community and at current address, housing satisfaction, and a comparison of past and present social activities. Moderate relationships were found between loneliness and the variables of marital status with Kendall's Tau correlation equalling 0.335, and age with Kendall's Tau correlation equalling 0.255. No strong relationships were found.

The acceptable significance level for the Kendall's Tau correlations was $p \leq .05$. Significant correlations were found between loneliness and the variables of marital status (0.012), household composition (0.049), and housing satisfaction (0.035) as shown in Table 9.

Linear regression was also done with the variables of age and loneliness. The results showed that as age increased, the loneliness score also slightly increased, but still remained in the intermediate loneliness score range, between 29 to 55 on the U. C. L. A. Loneliness Scale.

Table 9. Kendall's Tau Correlation Coefficient and Significance Levels for Marital Status, Household Composition, and Housing Satisfaction

Variable	Kendall's Tau Correlation Coefficient	Significance Level
Marital status	0.335	0.012
Household composition	0.209	0.049
Housing satisfaction	0.243	0.035

Summary

Thirty-seven subjects completed a questionnaire and an interview concerning social involvement of elderly adults living in the community. Using the U. C. L. A. Loneliness Scale, 1 subject (2.7 percent) was identified as being lonely, and 29 subjects (78.4 percent) were in the intermediate loneliness group. In response to why they were lonely, 8 (21.6 percent) of the subjects named loss of spouse or relatives. To overcome their loneliness, 15 (40.5 percent) of the subjects stated they did a solitary activity such as reading, walking, watching television, listening to the radio, knitting, crocheting, writing letters, and painting. Twenty-five (64.9 percent) of the subjects stated that doing a solitary activity or being with significant others were ways they used to prevent loneliness.

Using Cronbach's alpha coefficient, the U. C. L. A. Loneliness Scale was found to be reliable and to have internal consistency. Construct validity was not proven for this scale because of the low Kendall's Tau correlation between this scale and the subjects' self-reported loneliness level. No high correlations were found between loneliness and the subjects' characteristics. However, moderate Kendall's Tau correlations were found between loneliness and the variables of marital status and age. Significant relationships were only found between loneliness and the variables of marital status, household composition, and housing satisfaction. Lastly, linear regression showed that as age increased so did the loneliness scores, however, the loneliness level remained in the intermediate loneliness group range (a score of 29 to 55).

CHAPTER 5

DISCUSSION OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This chapter includes (1) an interpretation of general findings, findings in relation to previous studies, and findings in relation to the conceptual framework, (2) the limitations of this study, (3) the conclusions drawn from this study, and (4) recommendations for further research.

General Findings

The scores on the revised U.C.L.A. Loneliness Scale identified only 1 subject (2.7 percent) as being in the lonely groups and 29 subjects (78.4 percent) as being in the intermediate loneliness group. Possible explanations for this occurrence might be that (1) the revised U.C.L.A. Loneliness Scale does tap loneliness in the elderly, but these subjects were not lonely because they all were involved in a nutrition and socialization program or (2) the revised U.C.L.A. Loneliness Scale does not measure loneliness in elderly people.

The revised U.C.L.A. Loneliness Scale's alpha coefficient was 0.83, which proved its reliability and internal consistency with this elderly population. However, construct validity was not confirmed because of the non-significant and low Kendall's Tau correlation

coefficient (0.21) between the subjects' self-reported loneliness levels and their U.C.L.A. loneliness scores. Possible explanations for this finding might be that (1) even though the subjects were candid in answering the questions in the Subject Interview tool they may have been uncomfortable telling the investigator their loneliness level, or (2) the revised U.C.L.A. Loneliness Scale does not measure loneliness in the elderly.

Moderate correlations (0.25 to 0.50) were found between loneliness and the variables of marital status (0.335) and age (0.255). Significant correlations were found between loneliness and the variables of marital status ($p=0.012$), household composition ($p=0.049$), and housing satisfaction ($p=0.035$). Lastly, linear regression showed that as age increased so did the loneliness scores; however, the scores still remained in the intermediate score range. The findings of a moderate (0.335) and significant ($p=0.012$) correlation between marital status and loneliness may be explained by the fact that 23 subjects (62.2 percent) were not living with their spouse because they were widowed or divorced and this situation caused feelings of loneliness. The relationship between household composition and loneliness may also be explained in the same way since 23 subjects (62.2 percent) were not living with their spouse. The relationship between loneliness and age may be explained by the fact that as one ages the loss of the physical ability to engage in social activities, and the loss of significant others leads to loneliness. Lastly, a possible explanation for the

significant relationship (p=0.035) between loneliness and housing satisfaction might be that the subjects who were dissatisfied with the physical condition of their house did not invite friends and relatives to visit and this situation led to feelings of loneliness.

In response to why they were lonely, 16 (80.0 percent) of the 20 subjects who gave a self-report of being either rarely, sometimes or often lonely stated that a loss such as loss of spouse, relatives, income, mobility, companionship or a familiar neighborhood caused their loneliness. An interpretation of this finding may be that loss is an important factor in producing loneliness in the elderly. As ways to overcome loneliness, 15 (75.0 percent) of the 20 subjects who gave a self-report of being rarely, sometimes or often lonely stated that doing a solitary activity helped them to overcome their loneliness. This finding may be explained by the fact that 10 (66.6 percent) of the subjects who used a solitary activity to overcome their loneliness had no spouse that they could turn to in times of loneliness. Also, the individuals who used a solitary activity to overcome their loneliness may not have been physically capable of engaging in other types of activities.

Findings in Relation to Previous Studies

This study's findings are now compared to the findings from previous studies. Both similarities and differences are apparent.

This investigator, in her review of the literature, did not find any studies that had used the revised U.C.L.A. Loneliness Scale

with an elderly population. Before this study, its use was confined to the college age population (Russell et al. 1980), In both this study and past studies, the revised U.C.L.A. Loneliness Scale has been proven to be reliable and to have internal consistency. However, even though it had been proven previously with college age populations for this elderly population construct validity was not confirmed with this scale.

The results of this study that used the revised U.C.L.A. Loneliness Scale identified only 2.7 percent of the 37 elderly subjects as being lonely. This finding is less than that found in previous studies, where 12 percent to 28 percent of the elderly subjects were found to be lonely (Harris et al. 1975; Sheldon 1948; Tunstall 1966). The methodology used to identify loneliness in Sheldon's (1948) and Tunstall's (1966) studies was a self-report loneliness level question. Harris' et al. (1975) study identified loneliness as a serious problem in old age by giving the elderly a list of common problems in old age and having them rank the items on the list from the most serious to the least serious problem.

A comparison was made between this study's findings regarding the relationships between loneliness, and certain subject characteristics, and those findings found in previous studies. Unlike Harris' et al. (1975) findings, the present study showed low correlation between loneliness and the variables of income (-0.128), race (-0.094), educational level (0.186), and sex (0.172). However, both the results

of the correlation (0.255) between loneliness and age and linear regression, which showed that as age increased so did loneliness, supported the findings of Harris et al (1975), Sheldon (1948), and Tunstall (1966).

The moderate correlation (0.335) and significant relationship (p=0.012) between loneliness and marital status confirmed the results of Shanas et al. (1968) and Sheldon (1948) that widowed persons are lonelier than married or divorced persons. A significant relationship (p=0.049) was found between loneliness and household composition which supported the results of Sheldon's (1948) study and Tunstall's (1966) study that persons who live alone are lonelier than those who do not. In the present study, a significant relationship (p=0.035) was found between loneliness and housing satisfaction. Woodward, Gingles, and Woodward (1974) also found a significant relationship (p=0.01) between loneliness and housing satisfaction. However, in the present study, the subjects' housing dissatisfaction resulted from the physical condition of their house, whereas, in Woodward's et al. (1974) study, housing dissatisfaction resulted not from the physical condition of the house, but from subjects' unhappiness with their current living situation and their inability to change it.

Several earlier studies have identified variables as having a relationship with loneliness that did not correlate and did not have a significant relationship with loneliness in this study. Kivett (1979) found that as visual difficulty in the elderly increased so did loneliness. Studies by Clark and Anderson (1967), Kivett (1979), and Munnichs

(1964) found in their studies that loneliness increased in old age because of loss of friends and relatives through death. Lastly, Kivett (1979), and Shanas et al. (1968) found in their studies that poor self-rated health had a relationship with loneliness.

In this study, three causes of loneliness--loss of spouse, loss of relatives, and being alone--were identified by the same number of subjects (4) as the main cause of the subject's loneliness. In Tunstall's (1966) study, loss of spouse was named as the main cause of loneliness in the elderly. Other areas of agreement as to the cause of loneliness in the elderly in the present study and in Tunstall's (1966) study were in the categories of being alone and loss of mobility. Areas of disagreement between those two studies as to the causes of loneliness were in the categories of living alone, seldom going out, being ill, and being blind for Tunstall's (1966) study, and in the categories of loss of relatives, loss of income, and relocation in the present study.

Ways to overcome loneliness that the subjects identified in the present study were doing a solitary activity, calling a relative, and going out for the day. These findings supported the results of Botwinick's (1978), Busse's and Pfeiffer's (1969), Carnevali's and Patrick's (1979) and Tunstall's (1966) studies which found that having contact with significant others helped the elderly overcome their loneliness. Findings of previous studies on ways to overcome loneliness that were not supported by the present study were: (1) developing

health and vision programs, and transportation programs for the elderly (Kivett 1979), (2) having a reunion with separated persons or things or reinvestment of one's energies into new persons or things (Francis and Odell 1979), and (3) participating in senior centers and programs (Kalish 1977; Kivett 1979; Rosenblatt 1972).

Findings in Relation to the Conceptual Framework

The conceptual framework for this study was based on loss and loneliness concepts in the elderly. The findings of the present study supported the view that loneliness often follows a major loss. The significant correlations between loneliness and marital status and household composition supported the concept that loss of spouse leads to loneliness. The moderate correlation (0.255) between loneliness and age supported the idea that loss of youth and with this also loss of certain abilities and capabilities leads to feelings of loneliness. The significant correlation ($p=0.035$) between housing satisfaction and loneliness was not supported by the conceptual framework.

The subjects' responses as to why they were lonely supported the conceptual framework in that certain types of losses have a relationship in generating loneliness in the elderly. The subjects stated that loss of a spouse, relatives, income, mobility, companionship, and a familiar neighborhood caused their loneliness. The types of losses identified in the conceptual framework that had a relationship in generating loneliness in the elderly were: (1) loss of a significant loved or valued person, (2) loss of some aspect of the self, (3) loss

of external objects, such as loss of home or money, and (4) developmental loss (Schoenberg et al. 1970). The only losses that the subjects did not identify as being a cause of their loneliness in the present study and that were identified in the conceptual framework and supported by previous studies were loss of residence, physical capacity, vision, hearing, health, and employment.

Limitations

A number of limitations should be noted in relation to the present study. A small, non-randomized sample was used in this study, which prevented generalizability of the findings beyond the sample population. The small sample size used puts limitations on the significance of the findings. Also, the fact that the sample population attended a nutrition and socialization program might have made this group less lonely than those not involved in a nutrition-socialization program.

When the study's tools were examined, two limitations were evident. Since the revised U.C.L.A. Loneliness Scale was not known to have been previously used with an elderly population and its ability to measure loneliness in the elderly was unknown, these factors may have affected the findings of this study. The fact that the self-reported loneliness level question was asked in the Subject Interview instead of in the Subject Questionnaire, which the subject filled out himself may have affected the findings regarding the construct validity of the revised U.C.L.A. Loneliness Scale.

Conclusions

From the data presented in the preceeding pages, the following conclusions were derived:

1. The percentage of lonely elderly persons identified in this study was lower than the percentage of lonely elderly persons identified in previous studies.
2. The level of intermediate loneliness increased with age.
3. There was a positive relationship between loneliness in the elderly and loss of spouse.
4. There was a positive relationship between loneliness in the elderly and living without one's spouse.
5. Loneliness in the elderly increased as satisfaction with the physical condition of one's housing decreased.
6. The causes of loneliness identified by this elderly population supported the study's conceptual framework that loss was an important factor in producing loneliness in the elderly.
7. Although all of these elderly persons were involved in senior citizens' nutrition and socialization programs, the majority of them identified doing solitary activities as their way of overcoming their loneliness.

Recommendations for Further Research

Based on this study's findings, the following recommendations for further research are made:

1. Further testing of the revised U.C.L.A. Loneliness Scale to measure its reliability and validity and its appropriateness for use with an elderly population.
2. Clearly state the definition of loneliness to the study population.
3. Test the reliability of the subjects' answers to the self-reported loneliness level question by placing it on both the U.C.L.A. Loneliness Scale Questionnaire and on the Subject Interview tool, and also comparing these answers to the U.C.L.A. Loneliness Scale scores.
4. Replication of this study's methodology using a larger sample of elderly individuals and elderly individuals who are not involved in a socialization program.
5. Selection of subjects for the study in such a manner that a similar number of subjects are obtained according to sex, race, and age categories to make comparisons of different groups easier.

APPENDIX A

HUMAN SUBJECTS CONSENT LETTER

THE UNIVERSITY OF ARIZONA
TUCSON, ARIZONA 85724
HUMAN SUBJECTS COMMITTEE
ARIZONA HEALTH SCIENCES CENTER 2305

24 October 1980

Ms. Rose A. Bianchi
2868 North Alvernon Way
Apartment #6
Tucson, Arizona 85712

Dear Ms. Bianchi:

We are in receipt of your project, "Social Involvement of Elderly Adults Living in the Community", which was submitted to the Human Subjects Committee for review. We concur with the opinion of your Departmental Review Committee that this is a minimal risk project. Therefore, approval is granted effective 24 October 1980.

Approval is granted with the understanding that no changes will be made in either the procedures followed or in the consent form used (copies of which we have file) without the knowledge and approval of the Human Subjects Committee and the Departmental Review Committee. Any physical or psychological harm to any subject must also be reported to each committee.

A university policy requires that all signed subject consent forms be kept in a permanent file in an area designated for that purpose by the Department Head or comparable authority. This will assure their accessibility in the event that university officials require the information and the principal investigator is unavailable for some reason.

Sincerely yours,

Milan Novak

Milan Novak, M.D., Ph.D.
Chairman

MN/jm

cc: Ada Sue Hinshaw, R.N., Ph.D.
Departmental Review Committee

APPENDIX B

SUBJECT'S CONSENT FORM

Project Title: Social Involvement of Elderly Adults Living in the Community

The purpose of this study is to identify the level of social involvement of elderly adults living in the community. I understand that my participation in this study is voluntary and will require approximately 45 minutes of my time. I will be asked to complete a questionnaire and an interview. The interview will take place at one of the Senior Now Generation's program sites.

I understand there will be no risks involved in my participation in this study. The investigator will be available to answer questions at any time during the interview. I am free not to answer any questions and to withdraw from the study at any time without incurring any ill will or affecting my relationship with caregivers in any way.

All of the information I give will remain confidential and will only be handled by the investigator. My name will not appear on any forms or in any reports of the study. Analysis of the data will be done by computer. The data will be used only for the purposes of this study and may be published in a professional journal.

I understand that there is no cost and no monetary payment involved in my participation. The benefits of the study will be to find out what older people do with their time.

I understand the above subject's consent. The nature, demands, risks, and benefits have been explained to me. I understand that this consent form will be filed in an area designated by the Human Subject's Committee with access restricted to the principal investigator or authorized representatives of the College of Nursing. A copy of the consent form is available to me upon request.

I agree to the above "Subject's Consent."

Subject's Signature _____ Date _____

Investigator's Signature _____ Date _____

Witness's Signature _____ Date _____

APPENDIX C

U.C.L.A. LONELINESS SCALE

SUBJECT QUESTIONNAIRE*

ID NO._____

DIRECTIONS: INDICATE HOW OFTEN YOU FEEL THE WAY DESCRIBED IN EACH OF THE FOLLOWING STATEMENTS. CIRCLE ONE NUMBER FOR EACH STATEMENT.

1 = NEVER
2 = RARELY
3 = SOMETIMES
4 = OFTEN

		NEVER	RARELY	SOMETIMES	OFTEN
1.	I FEEL IN TUNE WITH THE PEOPLE AROUND ME	1	2	3	4
2.	I LACK COMPANIONSHIP	1	2	3	4
3.	THERE IS NO ONE I CAN TURN TO	1	2	3	4
4.	I DO NOT FEEL ALONE	1	2	3	4
5.	I FEEL PART OF A GROUP OF FRIENDS	1	2	3	4
6.	I HAVE A LOT IN COMMON WITH THE PEOPLE AROUND ME	1	2	3	4
7.	I AM NO LONGER CLOSE TO ANYONE	1	2	3	4
8.	MY INTERESTS AND IDEAS ARE NOT SHARED BY THOSE AROUND ME	1	2	3	4
9.	I AM AN OUTGOING PERSON	1	2	3	4
10.	THERE ARE PEOPLE I FEEL CLOSE TO	1	2	3	4
11.	I FEEL LEFT OUT	1	2	3	4
12.	MY SOCIAL RELATIONSHIPS ARE SUPERFICIAL	1	2	3	4
13.	NO ONE REALLY KNOWS ME WELL	1	2	3	4
14.	I FEEL ISOLATED FROM OTHERS	1	2	3	4
15.	I CAN FIND COMPANIONSHIP WHEN I WANT IT	1	2	3	4
16.	THERE ARE PEOPLE WHO REALLY UNDERSTAND ME	1	2	3	4
17.	I AM UNHAPPY BEING SO WITHDRAWN	1	2	3	4
18.	PEOPLE ARE AROUND ME BUT NOT WITH ME	1	2	3	4
19.	THERE ARE PEOPLE I CAN TALK TO	1	2	3	4
20.	THERE ARE PEOPLE I CAN TURN TO	1	2	3	4

*USED WITH PERMISSION OF DR. LETITIA A. PEPLAU

APPENDIX D

SUBJECT INTERVIEW

Sex _____
Race _____
Identification Number _____

The following questions seek to obtain some general information about you, your social activities, and your health.

1. I am interested in knowing what kind of activities you liked to do when you were in your 20's and 30's. For example, did you like to go to parties, golf, attend clubs, garden, knit, attend church activities, sew, etc.? _____

_____

_____

_____

_____

2. Which of these activities do you continue to do at your present age? _____

_____

_____

_____

3. What activities are you doing now that you didn't do when you were in your 20's and 30's? _____

_____

_____

_____

4. I am interested in knowing, how you would compare the activities you did in your 20's and 30's to the activities you do now. Do you do

_____ More activities

_____ The same amount of activities

_____ Less activities than in your 20's and 30's.

5. Are you a year round resident of Tucson?

_____ Yes

_____ No (Go to Question 8)

6. If yes, how many years have you lived in Tucson?

_____ years

7. How long have you lived at your current address? _____

_____

(Go to Question 10)

8. If no, how many months of the year do you live in Tucson?

_____

9. When you are in Tucson, do you come to same address?

_____ Yes

_____ No (specify) _____

10. With whom do you live?

_____ No one

_____ Spouse

_____ Child _____ Son _____ Daughter

_____ Relative

_____ Friend

_____ Other

11. How satisfied are you with your current housing situation?

_____ Very satisfied

_____ Satisfied

_____ Not too satisfied

_____ Not at all satisfied

12. If not satisfied, why? _____

_____

13. Do you have difficulty getting around Tucson by yourself?

_____ Yes

_____ No

14. If yes, what prevents you from going where you want to go?

_____

_____

15. I am interested in knowing how healthy you think you are. Would you say you are in:

_____ Excellent health

_____ Good health

_____ Fair health

_____ Poor health

16. Do you have any difficulty seeing (with your glasses)?

_____ No difficulty (Go to Question 19)

_____ A little difficulty (Go to Question 17)

_____ A lot of difficulty (Go to Question 17)

_____ Totally blind (Go to Question 18)

17. If the answer is a little or a lot of difficulty ask, are you able to:

_____ Read a newspaper or book

_____ Watch TV

_____ Go out by yourself

18. If the answer it totally blind ask, are you able to:

_____ Read braille

_____ Go out by yourself

19. Do you have any difficulty hearing conversation when talking with one person (one to one)?

_____ No difficulty

_____ A little difficulty

_____ A lot of difficulty

_____ Difficulty observed

20. Do you have any difficulty hearing conversation when in a group of people?

_____ No difficulty

_____ A little difficulty

_____ A lot of difficulty

_____ Difficulty observed

21. Do you wear a hearing aid?

_____ Yes

_____ No (Go to Question 24)

22. If yes, how long have you been wearing a hearing aid?

_____

23. Do you have any trouble with your hearing aid? (ex. changing or buying batteries) _____

_____

24. Are you presently . . . .

_____ Married and living with your spouse

_____ Widowed

_____ Never been married

_____ Separated

_____ Divorced

25. If widowed, ask how long have you been a widow or widower?

_____

26. Do you have any children?

_____ Yes

_____ No

27. Do any of your children live in Tucson?

_____ Yes _____ Number

_____ No

28. If no, do you correspond? _____

_____

29. How often do you have contact with your children? (ex. physical, phone, letter) _____

_____

30. Do you have any brothers or sisters?

_____ Yes

_____ No

31. Are any of them living in Tucson?

_____ Yes _____ Number

_____ No

32. If no, do you correspond? _____

_____

33. How often do you have contact with your brothers or sisters? (ex. physical, phone, letter) _____

_____

_____

34. Do you have any friends that you are especially close to?

_____ Yes

_____ No

35. If yes, are they living in Tucson?

_____ Yes

_____ No

36. If no, do you correspond? _____

_____

_____

37. How often do you have contact with these persons? (ex. physical, phone, letter) _____

_____

_____

38. We all have times when we are lonely. How often do you feel lonely?

_____ Never _____ Sometimes

_____ Rarely _____ Often

39. Do you have any idea as to why you are lonely? _____

_____

_____

40. When you are lonely, what do you do to overcome it? _____

_____

_____

41. Do you have any ideas on how you can prevent yourself from being lonely? _____

_____

_____

42. What was the highest grade in school you completed?

None 0
Elementary 1 2 3 4 5 6 7 8
High School 1 2 3 4
College 1 2 3 4 5 +
Graduate 1 2
Other (specify) _____

43. How old were you on your last birthday? _____

44. What is your income per year?

_____ under $3,000

_____ $3,000-6,999

_____ $7,000-9,999

_____ $10,000-14,999

_____ $15,000 or more

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