Loneliness: A Study of Adult Clinic Patients with Metastatic Cancer

Katherine Norfleet Berry

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LONELINESS: A STUDY OF ADULT CLINIC PATIENTS
WITH METASTATIC CANCER

A thesis submitted in partial fulfillment of the
requirements for the degree of Master of Science
at Virginia Commonwealth University

By

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Chapter 1

INTRODUCTION

In recent years the concept of loneliness has drawn increasing attention. Newspapers and popular literature are addressing loneliness as a topic of growing concern and one worthy of investigation. Since loneliness is such a complex, subjective experience, many competing theoretical frameworks for the concept are developing. Investigators are only beginning to collect and formulate pieces of empirical data concerning loneliness.

A large scale empirical study of loneliness was recently conducted in two northeastern cities.¹ One of the most interesting findings was that lonely people are dissatisfied people. Rubenstein and Shaver found that lonely people generally have fewer social ties, but an even more important determinant of their loneliness is dissatisfaction with available friends and relationships.

This significant research finding supports Bowen's theory of "family reaction to death."² He postulated that


a high percentage of people die alone, locked into thoughts which they cannot communicate to others. Bowen attributed this plight of the terminally ill person to at least two processes. First, the intrapsychic self always employs some denial of death. The second process involves a "closed relationship system." The person cannot communicate his personal thoughts, lest he upset the family.

Family members, or significant others, provide a source of feedback that helps to shape one's thoughts, provide support for feelings, and identify and reduce anxiety. If a dying person is without this association of oneself to others, he may lack valuable sources to find meaning in his remaining lifetime.

Loneliness, the primary focus of this study, is a vaguely defined concept often associated with terminally ill persons. This study examined the self-perceived quality of relationships of persons with cancer and their experience of loneliness.

Problem Statement

Is there a relationship between secondary loneliness and openness in one's relationship system among adult clinic patients with metastatic cancer?

\(^3\)Ibid.

Definition of Terms.

1. Secondary Loneliness--conceptually, the exceedingly unpleasant subjective feeling associated with the lack of a desired interpersonal relationship of mutual understanding. Operationally, it is defined as:

   (a) One has cathectic attachment to a particular person. (One places meaning and import in the person.)

   (b) Unspoken thoughts, feelings and fantasies during terminal illness separate him psychologically from this person.

   (c) Certain secondary needs go unmet.

   (d) He may experience an unpleasant feeling; he is more or less lonely relative to the amount of desire to maintain or establish open communication with the now separated person.

   It is measured by the loneliness items of "Schedules for the Measurement of Loneliness and One's Relationship System with a Significant Other."\(^5\)

2. Openness in One's Relationship System--the degree to which an individual is free to communicate a high percentage of inner thoughts, feelings and fantasies to another who can reciprocate.

   It is measured by the relationship system items of the SMLRS.

\(^5\)See Appendix A. Hereafter to be referred to as SMLRS.
3. Adult Clinic Patients with Metastatic Cancer—persons 18 years of age or older with malignant tumors which have spread to a body system other than the primary site. This diagnosis is documented in the medical record. The subjects were patients of a large teaching hospital cancer clinic. They were living in a private residence at the time of the study.

Why Study Cancer Patients?

The misconception that having cancer is synonymous with imminent death pervades our society. The reality, however, is that patients with metastatic cancer are likely to be confronted with a long and difficult disease process, usually complicated by a series of exacerbations and remissions. During this period of their illness, patients and families are frequently unable to communicate fears and concerns about the disease and the future. This "mutual pretense awareness context" sometimes results in separating the person with cancer from those he needs most. Therefore, it appears that cancer patients need not necessarily be physically separated from loved ones to experience


loneliness as Francis described in her study of hospitalized adults.  

A salient problem for the dying patient is his realistic feelings of loneliness related to this mutual disengagement or withdrawal from others in the environment. Due to their own anxiety, fear and guilt, family members often separate themselves from persons with cancer. A primary need of the patient is to alleviate loneliness by sharing feelings with another person who can offer support and comfort. 

An important goal of nursing is to assist patients and families to maintain an optimum level of wellness even until death: If a link between the experience of loneliness and the character of the relationship system of cancer patients could be determined, then nursing would have a better knowledge base with which to promote psychological well-being for persons with cancer. The purpose of this research was to determine if there is such a link between loneliness in adult clinic patients with metastatic cancer and openness in the relationship system with their most significant other.


Hypothesis.

There is an inverse relationship between secondary loneliness and openness in one's relationship system among adult clinic patients with metastatic cancer.

Assumptions.

1. A closed relationship system between two persons results in the psychologic separation of the two persons.
2. Secondary loneliness and openness of a relationship system can be measured.

Theoretical Framework

Bowen remarked that death, or threatened death as with metastatic cancer, stirs more emotionally directed thinking in the individual and more emotional reactivity in those around one than any other life event. Though reactivity varies, the functional equilibrium of a family is certainly disturbed when the loss of one of its members is threatened. Bowen used the concepts of "open" and "closed" relationship systems to describe death as a family phenomenon.10

Open Relationship System

An open relationship system is one in which an individual is free to communicate a high percentage of inner thoughts, feelings and fantasies to another who can

10Bowen, 321-35.
reciprocate. Therefore, in an open system a family member with a life-threatening illness is able to share his deepest fears and concerns about his remaining lifetime and death. Bowen pointed out that a completely open relationship with another is not possible, but the more open the relationship the healthier the system.

Closed Relationship System

A closed relationship system is one in which automatic emotional reflexes to avoid sensitive subjects take over to protect self from the anxiety in the other person. Death is chief among all taboo subjects. In a "closed" family dealing with the threatened loss of one of its members, each person avoids discussion of death or any associated concern lest he upset the others. The dying person then is forced to face his approaching death alone.

Bowen offered an example of the consequences of this closed communication system for the dying family member by quoting a woman with cancer.

This is the loneliest life in the world. Here I am, going to die, and not knowing how much time I have left. I can't talk to anyone. When I try to talk to my husband, he makes jokes about it. . . . I am cut off from everyone. When I get up in the morning, I feel terrible. I look at my eyes in the mirror to see if they are jaundiced and the cancer has spread to my liver. I try to act cheerful until my husband goes to work, because I don't want to upset him. Then I am alone all day with my thoughts, just crying and thinking. Before my husband returns home from work, I try to pull myself together for his sake. I wish I could die soon and not have to pretend any longer.11

11Bowen, 330.
The woman is in a state of disequilibrium. She wants to reach out to her husband, but does not due to her fear of upsetting him. In this case, a closed relationship system seemed to be concomitant with the experience of secondary loneliness.

Conceptual Framework for Loneliness,

Francis recognized that no theory for loneliness had yet been established and so developed a conceptual framework for secondary loneliness. A person experiences secondary loneliness as a result of temporary physical separation from cathected persons and objects. The amount of loneliness experienced is directly related to the amount of relative deprivation (or gratification) for the need to maintain significant relationships.12

Brown viewed loneliness as an adaptive problem of interdependence. She employed Sullivan's widely quoted definition for loneliness. It is "the exceedingly unpleasant and driving experience connected with an inadequate discharge of the need for human intimacy."13 Brown effectively organized concepts related to loneliness in her loneliness continuum, Figure 1.

12 Francis, "Loneliness: A Study of Hospitalized Adults," 77.

Figure 1
Brown's Loneliness Continuum

Aloneness is the most healthy behavior and psychotic loneliness, also termed self-alienation, is at the far illness end of the continuum. Midway between these two points one finds lonely. Contact with others to the left of lonely is definitely healthier. She placed loneliness at the right of lonely. The defenses against loneliness such as the use of distractive responses, rebellion, withdrawal and ritualistic activity follow next. Finally, at the illness end of the continuum, one finds psychotic loneliness.\footnote{Sue Ann Brown, "Problem of Interdependence: Loneliness," Introduction to Nursing: An Adaptation Model, ed. Sister Callista Roy (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1976), 342-56.}

Being lonely, according to Brown, is simply missing contact with a significant other. It is a natural result of separation. Being lonely, then, parallels Francis' conceptualization of secondary loneliness. Brown viewed loneliness, on the other hand, as a more severe and longer lasting experience. It is directly related to alienation from others. "Alienation is a condition or feeling of being estranged or separated from self or others."\footnote{Brown, 343.}

The conceptual framework for the present study was based upon a combination of both Francis' and Brown's conceptualizations of loneliness. Restated, a person experiences secondary loneliness as a result of psychologic separation from cathected persons. The amount of loneliness experienced is directly related to the amount of relative
deprivation (or gratification) for the need to maintain significant relationships.

The Research Plan

The descriptive, correlational design was used to determine the relationship between the variables of secondary loneliness and openness of one's relationship system. An extraneous variable was the diagnosis of metastatic cancer. Data were collected by structured interviews conducted by a single interviewer.

The population was adult clinic patients with metastatic cancer who had appointments at a large southeastern teaching hospital cancer clinic in the month of June, 1980. All patients who met the following criteria were eligible to participate in the study:

1. Eighteen years of age or older;
2. The diagnosis of metastatic cancer documented in the medical record;
3. Ability to understand and speak English;
4. Mentally alert so as to respond to the SMLRS;
5. Living at home during the study;
6. Non-visible cancer;
7. Scheduled for an appointment to be seen in the chemotherapy clinic during the month of June, 1980.

A probability sample of 40 was drawn from the population. Data were collected each Monday and Friday (days for chemotherapy clinic) in June. The nine lists of patients with clinic appointments served as the nine sampling frames. Five patients were randomly selected each data collection day. Patient waiting periods during clinic visits were utilized to conduct the interviews. Each interview was conducted in privacy and lasted approximately 15 minutes.

The data collection tool, the SMLRS, was adapted from Francis' "Schedules for the Measurement of Loneliness and Cathectic Investment." The overall format of the structured interview schedule closely resembled Francis' tool. As Francis related cathectic investment to secondary loneliness, the present study related openness of one's relationship system to secondary loneliness. Francis' loneliness items were adapted to generate data concerning psychologic versus physical separation. Bowen's conceptualization of "open" and "closed" relationship systems provided the basis for the relationship system measurement.

These two sets of items, the four relationship system items and the four loneliness items, generated the data needed to test the hypothesis. The Spearman rank correlation coefficient was computed to measure association between the variables of openness in one's relationship system and secondary loneliness. A test of significance was performed
to determine if the correlation coefficient was significantly different from zero.

No criterion-related validity or reliability for the presently adapted data collection tool were established, which was recognized as a limitation of the study.

Summary

Loneliness is a topic of growing concern in the literature. Despite inherent difficulties in measuring such a personal experience, the present study was undertaken in order to gain knowledge concerning emotional needs of the dying cancer patient.

The conceptual frameworks for loneliness of Francis and Brown were combined and added to Bowen's theory of "family reaction to death" to formulate the framework for this research. The relationship of secondary loneliness among adult clinic patients with metastatic cancer, and openness of their relationship system with a significant other was explored using the structured interview method. The loneliness scale and relationship system scale generated scores which were analyzed to determine correlation.
Chapter 2

LITERATURE REVIEW

A review of the literature revealed that until the past eight years very little empirical research concerning loneliness had been conducted. Fromm-Reichman pointed out that loneliness seems to be such a painful, frightening experience that people will do practically anything to avoid it. Therefore, she explained, loneliness is understandably one of the least satisfactorily conceptualized psychiatric phenomenon. Recently, though, research has appeared in the sociologic and psychologic literature.

The review was divided into four sections: the concept of loneliness, empirical research approaches to the study of loneliness, loneliness and death and dying, and cancer and interpersonal relationships.

The Concept of Loneliness

Sullivan described loneliness as "the exceedingly unpleasant and driving experience connected with an inadequate discharge of the need for human intimacy." His


18Sullivan, 290.
definition was the most widely quoted definition for loneliness found in the literature. Much discussion has occurred differentiating loneliness from related concepts, such as solitude and aloneness. Von Witzleben explained that loneliness implies a psychologic involvement that the other two, as simple temporary states of being, do not have.\textsuperscript{19} He further defined the concept by distinguishing two distinct types of loneliness, i.e., primary loneliness and secondary loneliness.

Primary loneliness, or existential loneliness, is inborn in everyone. It is the feeling of being alone and helpless in the world. It is independent of loss. One immobilizes innumerable defense mechanisms to keep from conscious recognition of the experience.\textsuperscript{20} In other words, man extends himself to others to defend himself against the pain of his primary loneliness, or aloneness in the world. When these relationships are lost or he is separated from them, he experiences the secondary type of loneliness.

Secondary loneliness is a temporary feeling of abandonment caused by the loss of or separation from an object or significant person. Identity of self and the external world is changed after the loss or separation is experienced. This secondary loneliness will eventually lose its destructiveness if the ego has enough integrative

\textsuperscript{19}Henry D. Von Witzleben, "On Loneliness," Psychiatry 21 (February, 1958), 38.
\textsuperscript{20}Ibid.
capacity to overcome the loss or to seek new gratifica-
tion.21

Loneliness as an Emotional Disturbance

Much of the psychiatric literature concerning lone-
liness spoke of the loneliness an individual feels who has
not been able to relate to his external world. This unre-
lenting feeling of primary loneliness is so emotionally dis-
turbing that it is always hidden, disguised, defended
against, and expressed in other forms.22

Peplau pointed out that loneliness is not a chosen
state. The person experiencing loneliness is often unaware
of why he does what he does. Her definition for loneliness
is "an unnoticed inability to do anything while alone."23
Peplau placed loneliness in the category of emotional dis-
turbance. She supported Sullivan's view of loneliness as
the result of early life experiences in which remoteness,
indifference and emptiness were the principle themes that
characterized the child's relationships with others. She
remarked, therefore, that nurses must deal with the
patient's defenses against the experience of the pain of
loneliness versus the loneliness itself.24

21Ibid.
22Hildegard Peplau, "Loneliness," American Journal
of Nursing (December, 1955), 1476.
23Ibid.
24Ibid.
Fromm-Reichman, known for her work with schizophrenics, related the failure to obtain satisfaction of the universal human need for intimacy to the premature weaning from mothering tenderness. The nonconstructive, unbearable feeling of loneliness is revealed in, or leads ultimately to the development of psychotic states.25

Moustakas described "loneliness anxiety" as a chronic illness which debilitates the person by stifling any realization of self or of potential. It begins in the early years with a failure to establish meaningful contact with others, extending into the frustration of the need for tenderness and protective care, and into adult years when there is a failure to meet others on a genuine loving basis. Feelings of inferiority and suspicion evolve. The anxiety drives the individual to strive constantly for approval, but at the same time, he employs strategies which alienate him from others. Eventually one either gives up or responds with aggression to cover up inner feelings of separation, anxiety and despair. Moustakas suggested that if he could only surrender to his real loneliness, instead of this "loneliness anxiety," he might emerge as a new person.26

Moustakas referred to real, or existential, loneliness as a positive experience.

25Fromm-Reichman, 3-4.

Ultimately each man is alone but when the individual maintains a truthful self-identity, such isolation is strengthening and induces deeper sensitivities and awareness. . . . The fear of the reality of loneliness and attempts to escape the experience will forever isolate the individual from his own existence.27

In other words, Moustakas supported the experience of primary loneliness as an opportunity for growth and self-actualization. "Loneliness anxiety," on the other hand, is the fear of primary loneliness and the resultant defenses against the experience.

Loneliness as a Reactive Experience

Other writers described loneliness as a psychologic response to separation. They did not consider psychologic trauma from early life experiences as a factor in the concept of loneliness. Hoskisson viewed loneliness as the conscious experience of separation from something or someone desired, required or needed. He cautioned that "it is not solitariness, for there the separation is not felt, nor is it lack of physical or social contact, for as we all know the presence of people does not assuage it."28

Similarly, Rubins described loneliness as often related to the absence of some other person, object or surrounding, but added that physical absence is not mandated. In fact, he wrote that the loneliness which occurs when

27Moustakas, 34-35.

others are present in crowds or with a loved one may be particularly painful. Furthermore, since loneliness is such a subjective experience, Rubins claimed that attempts to measure it objectively would limit or distort it. He added that the feeling is difficult to communicate due to pride and its intense nature. The writer also pointed out problems in delineating loneliness from other subjective states such as isolation, solitude, aloneness, separation, alienation and estrangement.\(^{29}\)

In summary, the concept of loneliness has been portrayed in the literature both as due to early life experiences, and as situational and a response to separation. Loneliness was viewed as a painful experience and one difficult to describe.

**Empirical Studies of Loneliness**

Few studies were cited providing objective data on loneliness until the last eight years. The earliest studies, as well as the most current study of loneliness cited in the literature, made loneliness a respondent category. In other words, respondents placed themselves in or out of the category of loneliness. Some studies employed descriptive designs and utilized open-ended questionnaires. Most of the later studies developed or adapted objective tools to measure loneliness making loneliness an observer category.

Respondent Category Studies

The four area survey. Tunstall, an English sociologist, conducted a survey of persons age 65 and older in four contrasted areas of England. Five hundred and fifty-three persons were interviewed, and 195 were placed into one of the categories that Tunstall called "being alone." They included: living alone, social isolation, loneliness, anomie.30 Tunstall asked the subjects whether they felt "often," "sometimes," or "never lonely." While only 14 percent of all the subjects with high social contact were "often" or "sometimes lonely," the number increased to 65 percent of the socially isolated subjects.31

An interesting finding, particularly relevant to the present study of metastatic cancer patients, associated the factor of physical incapacity to loneliness. Those who were "often" or "sometimes" lonely included 13 percent of the men and 25 percent of the women with no incapacity. These figures increased to 43 percent of the men and 52 percent of the women suffering from severe incapacity. Since the degree of incapacity is not a significant factor either in living alone or social isolation, the study suggested that loneliness does not merely reflect an old person's degree of social isolation.32

31 Ibid., 86.
32 Ibid., 88.
The University of Nebraska study. A larger scale descriptive study in which loneliness was a respondent category surveyed five groups of 959 rural and urban residents. The sample consisted of college students, divorced persons, never-married persons, housewives and elderly persons. The investigators computed mean loneliness scores for each group to determine the loneliest period of life. Scores ranged from 4.0 for those respondents who were "lonely most of the time" to zero for those who were "never lonely." College students scored highest (1.72) and the elderly scored lowest (.78). The investigators suggested that loneliness decreases with age except in times of crises.33

The northeastern cities study. A recent study of loneliness, a large-scale survey, was conducted in two northeastern cities. A loneliness questionnaire was printed in Sunday newspaper supplements. Twenty-five thousand persons of all ages, races and incomes (women were disproportionate at 74 percent) responded.34

Rubenstein and Shaver designed the New York University Loneliness Questionnaire around theoretical speculations about the concept of loneliness found in the literature. They hypothesized that chronic loneliness can be  

33 John C. Woodward and Mary Jane Visser, "Loneliness: When and Whom Does It Touch?" Farm, Ranch and Home Quarterly, University of Nebraska-Lincoln College (Fall, 1972).

34 Rubenstein and Shaver, 323-24.
traced to childhood experiences of separation, loss or neglect. They expected loneliness to be related to geographic mobility, and tested the relationship between loneliness and age. In order to investigate the relationship between loneliness and self-esteem, they asked questions about personal attractiveness, likeability, self-esteem, friendliness, shyness, and the liking of others. Loneliness was determined by computing standard scores for each of eight self-rating loneliness items and then summing them. The internal consistency reliability of this eight-item loneliness scale was .88.  

Although no statistical evidence was cited, the researchers reported a significant relationship between trust of parents and loneliness. Respondents whose parents were divorced before age 18 were significantly more lonely than respondents whose parents were divorced later or not at all. They also reported an inverse relationship between age at parents' divorce and loneliness in later life. The investigators found that loneliness was not related to geographic mobility. Congruent with the findings of Woodward and Visser, and Francis, elderly respondents were significantly less lonely than young respondents.  

The investigators reported that two of the strongest findings were that lonely people had low self-esteem and

36 Ibid., 324-26.
that lonely people tended to like others less than non-lonely people. In addition, those people who believed that their lives had "meaning and direction" were less likely to be lonely and people who were lonely also tended to be "bored" and "unhappy." Important findings revealed dissatisfaction among lonely people. They were dissatisfied with their living situation, with the number of friends they have, with the quality of their friendships, with their marriages or love relationships, with the number of casual and personal conversations they have each day, and with their sex lives. The researchers pointed out that it could not be determined from the data to what extent this dissatisfaction was due to objectively substandard relationships versus unrealistically strong needs or high standards.37

A factor analysis was performed on 27 feelings of loneliness. Four categories of feelings were reported to emerge from the data. They were "desperation," "inpatient boredom," "self-depreciation," and "depression."38 "Desperation," which was reported to be the most significantly important factor, indicated to the investigators that a large part of loneliness is anxiety about one's inability to satisfy a powerful need which parallels Moustakas' explanation of "loneliness anxiety." Rubenstein and Shaver concluded from their investigation that "like all complex

37 Ibid., 327-29.
38 Ibid., 329-30.
emotions, loneliness is caused by an interaction of personal dispositions and situational forces.\textsuperscript{39}

In summary, according to the findings of the three respondent category studies, loneliness was not necessarily associated only with social isolation or old age. Personal attributes, such as low self-esteem, and dissatisfaction with the social aspects of life were found to correlate with loneliness.

Descriptive Studies

The Roberts study. Thirty graduate students at the University of Florida were given a questionnaire consisting of three open-ended questions about loneliness. The questions asked: (1) What is loneliness? (2) What do you think causes loneliness? (3) What has been your loneliest moment? The students were male and female, single and married, ages 22-45, and had varying occupations. Only 15 questionnaires were returned. The terms most frequently used to answer the first question were: separation, withdrawal, insecurity, absence, isolation, loss, deprivation, and unconcern. Nine of the respondents described how hard it had been to express their feelings of loneliness. Twelve of the responses to the third question specifically mentioned separation from a particularly significant other or others.\textsuperscript{40} Roberts found

\textsuperscript{39} Ibid., 333.

\textsuperscript{40} J. M. Roberts, "Loneliness Is . . .," Perspectives in Psychiatric Care 10 (May, 1972), 226-29.
loneliness to be a painful and difficult feeling for the respondents to explore.

The Portnoff study. In a more recent descriptive study of loneliness, which used content analysis, 68 college students were instructed to think about a time when they were particularly lonely and describe it. They wrote detailed descriptions of the following aspects of the experience: (1) the circumstances under which it arose; (2) what they thought, felt and wanted during the period; (3) how they behaved; and (4) the circumstances under which the experience was alleviated. All but two of the respondents admitted that they had at some time felt lonely. Content analysis revealed no discriminantly different patterns of loneliness. This led the investigator to conclude that there was a fundamental unity to the experiences described. Loneliness was shown to be precipitated by lack of, or estrangement from, relationships of mutual caring. The investigator noted that the feeling was not necessarily due to physical separation. The most frequently mentioned characteristics of loneliness were "depression," "longing for others," "boredom" and "apathy," "anxiety," "alienation," and "emptiness." Women reported depression and longing for others almost two times more frequently than did men. Boredom and apathy were reported by men in equally disproportionate numbers as compared with the women's responses. Engagement in activities was reported to be relatively
ineffective in alleviating loneliness. Especially significant, in relation to the present study, was that communication with others was rated highly effective in alleviating loneliness.41

In summary, Portnoff reported that communication was discussed by the respondents as a tool to establish the common meaning necessary in order to have the experience of really being with another person. Common characteristics of loneliness were identified, and it was noted that physical separation from relationships was not always a factor in the experience of loneliness.

These two descriptive studies conducted by Roberts and Portnoff identified different but related characteristic feelings associated with loneliness. Their findings supported the contentions of Fromm-Reichman, Von Witzleben, Moustakas and Rubins that affective responses related to loneliness are often identified as loneliness. Loneliness was found to be a complex experience and one difficult to measure. These findings also support the contention of Hoskisson and Rubins that loneliness is a reactive response to separation (not necessarily physical) from relationships of mutual caring.

Observer Category Studies.

Loneliness research has been plagued with the absence of a reliable and valid objective tool to measure

loneliness. In the last eight years, investigators have made more progress in this endeavor.

The Francis study. Francis, a nurse-sociologist, was one of the first investigators in recent years to attempt to measure loneliness objectively. She studied secondary loneliness in hospitalized adults. Her conceptualization of secondary loneliness as the result of separation from persons and things to which one has become closely attached was the basis for the development of her "Schedules for the Measurement of Loneliness and Cathectic Investment."\textsuperscript{42} The Francis study provided the groundwork for the current study. The loneliness scale and the overall format of the SMLRS were developed directly from her tool.

In her study, 70 adults (ages 16 to 83) who had been hospitalized for two weeks on a medical unit were interviewed using the SMLC. Francis hypothesized that:

Secondary loneliness is concomitant with certain attributes of hospitalized persons, vis., maleness, beyond the fifth decade of life, married, Protestant, in their first two weeks of hospitalization, and under the medical supervision of a hospital physician.\textsuperscript{43}

Findings showed that of the six variables, age and gender were not found to be significantly associated with loneliness in the predicted direction. Age below the fifth decade of life was found to be significantly associated with

\textsuperscript{42}Hereafter to be referred to as SMLC.

\textsuperscript{43}Francis, "A Study of Hospitalized Adults," 52-53.
loneliness \( Z = -1.59, P < 0.05 \). In congruence with her conceptual framework, Francis explained this finding as due to the greater cathetic investment of younger persons in the world around them. Most likely, older people have learned to adapt to separation and thus experience less loneliness when hospitalized. Francis noted that those persons under 51 have a greater emotional investment in objects, and so when they are separated from them, are lonelier. The hypothesis that loneliness is concomitant with maleness was also rejected. Francis concluded that women tend to be at greater risk to loneliness than men. She speculated that women may invest more of themselves in persons and things and have more meaningful attachments in life. A third important finding associated blackness with loneliness \( Z = 1.67, P < 0.05 \). Since loneliness was considered the subjective aspect of alienation, and alienation was viewed as a form of powerlessness, Francis interpreted the data as representative of the relative powerlessness of Blacks in this country.\(^{44}\)

Francis reported high validity for her loneliness tool. She correlated the objective measure with a subjective measure of loneliness. The coefficients for three studies with sample sizes of 70, 63 and 42, respectively, were \( r = 1.00, 0.64 \) and \( 0.45 \). Critical-ratio Z test values

were 8.31, 5.04 and 2.88 which were all significant at the 0.05 level using a two-tailed test. Francis concluded from these figures that the five item schedule for the measurement of loneliness within the SMLC objectively measured what was subjectively being experienced and called loneliness by the respondents.  

In summary, Francis found that loneliness was experienced in about half of the adult populations separated from their cathected investments by hospitalization. Women, Blacks and persons 50 and younger were at greater risk to loneliness. As previously cited, Woodward and Visser, and Rubenstein and Shaver, also found that loneliness was more prevalent in younger persons.

The Sisenwein study. The Sisenwein study was reviewed since it was the basis for several later studies of loneliness. The focus of the review was the investigator's attempt to construct an objective measure of loneliness. Most of the more recent studies of loneliness utilized tools based on his work.

The investigator asked 20 psychologists to submit statements that described how they felt when they experienced loneliness. Other statements were taken from the

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literature and a previously developed scale by Eddy\textsuperscript{47} (not available to this researcher). The investigation yielded 123 statements. Ten other psychologists judged the statements. Seventy-five of the items were judged as definitely expressing loneliness by seven or more of the 10 judges. These were selected and compiled for the loneliness tool. The scale was a 75-item questionnaire consisting of statements such as: "I long to see a familiar face," and "I am alone even in my dreams." Respondents checked "often," "sometimes," "rarely," or "never" according to how often they agreed with the statements. Sisenwein reported test-retest reliabilities of .83 and .85.\textsuperscript{48}

The remainder of the studies cited in this review utilized the Sisenwein Loneliness Questionnaire or the UCLA Loneliness Scale, which is an adapted version of the Sisenwein scale.

The Wood study. Wood examined loneliness from the perspective of her model of social identity. The model viewed identity as a function of the interaction of sociologic, social-psychologic and psychologic characteristics of the individual. The first component of social identity was respect, which derives from a person's intimate primary relationships. Esteem was the second component. It is


\textsuperscript{48}Sisenwein, 23-24.
derived from relationships that one has with the larger community.49

Two hundred and fifty-eight male and female respondents, mean age 29.41, volunteered for the study. Respondents completed the "Who Are You?" Questionnaire, the Sisenwein Loneliness Questionnaire, the Rosenberg Self-Esteem Questionnaire and a Demographic Questionnaire. The "Who Are You?" Questionnaire elicited information about the social positions of the respondents and formed the basis for the social identity variable. Loneliness was found to be inversely related to respect \( r = -0.349, P < .01 \) and esteem \( r = -0.155, P < .01 \). Respect was derived from one's significant relationships, and esteem was derived from the relationships one has with the community. Loneliness was also found to be inversely related to social identity \( r = -0.269, P < .01 \) and self-esteem \( r = -0.562, P < .01 \). No relationship between loneliness and age was found. A correlation between scores on the Sisenwein Loneliness Questionnaire and loneliness self-ratings from the Demographic Questionnaire was .73.50

Wood suggested that the correlation between loneliness and self-esteem may have been elevated due to the loneliness measure employed. Some of the items of the Sisenwein


50Ibid., 263-64.
tool appeared to have face validity for self-esteem as well as for loneliness (e.g., "Few people like me").

A significant finding of the Wood study especially relevant to the present investigation was that, as predicted, loneliness was inversely related to respect, a function of the individual's intimate and personal relationships. The present study predicted an inverse relationship between loneliness and openness of communication with a significant other.

The UCLA studies. In their groundwork study of 239 undergraduate students, Russell, Peplau and Ferguson constructed a tool which was adapted from the Sisenwein tool. The investigators selected 25 items from the Sisenwein Loneliness Questionnaire to preserve diversity but to exclude extreme statements (e.g., "Death will be my only companion"). Items selected included such statements as "I feel starved for company" and "People are around me but not with me."

Participants responded on Sisenwein's four-point scale ranging from "I never feel this way" to "I often feel this way." As an external validity criterion, the respondents completed a self-report measure of current loneliness. In addition, the subjects described their current mood and feelings by rating each of 25 adjectives selected from the loneliness literature to reflect feelings known to accompany loneliness. A revised loneliness scale of 20 items was developed

51Ibid., 268.
on the correlation of each item to the total loneliness score. Those items which had correlations over .50 were included. 52

The investigators reported a high reliability for the UCLA Loneliness Scale. Coefficient (Cronbach's) alpha was .96. They also reported a two month test-retest correlation of .73. Concurrent validity was also highly significant \( [r(45) = .79, P < .001] \). It was determined by correlating responses to the self-report question to total loneliness scores. 53

Data available from 133 undergraduate psychology students at UCLA provided further information about correlates of loneliness. Loneliness scores were associated with low self-ratings of "satisfaction" \( (r = -.43, P < .001) \) and being "happy" \( (r = -.40, P < .001) \). Specific emotional states found to significantly correlate (all \( P < .001 \)) with loneliness were "feeling empty" \( (r = .58) \), "self-enclosed" \( (r = .54) \), "awkward" \( (r = .46) \), "restless" \( (r = .38) \) and "bored" \( (r = .36) \). Lonely students were also more likely to rate themselves as "shy" \( (r = .45, P < .001) \) and less "attractive" \( (r = -.30, P < .001) \). 54

The UCLA study contributed a loneliness measure with high reliability and validity for the pursuit of loneliness.


53 Ibid., 292.

54 Ibid., 292-93.
research. The study showed that lonely people were dissatisfied and unhappy. Emotional states closely related to those already cited were found to correlate significantly with loneliness. In addition, more stable characteristics of the individual (e.g., shyness, unattractiveness) were shown to be associated with loneliness.

As compared with the Francis and the Wood study, the UCLA studies based their measures on more psychological aspects. The other two studies were more sociological in nature. Francis viewed loneliness as a response to separation from cathected objects and persons. Wood related loneliness to a person's intimate and social relationships.

Loneliness and expressive communication. Gerson developed the viewpoint that loneliness was sometimes the result of situational variables, and therefore, a more temporary state. This viewpoint was congruent with Francis' conceptual framework.

A sample of 66 undergraduate female students (N=300) were selected for study on the basis of their responses to the UCLA Loneliness Scale. The students completed two versions of the scale. One focused on how they felt during the past two weeks. A second indicated how they usually felt in their life. Fifty-six of the 66 subjects also completed the

Beck Depression Scale. The subjects were then divided into three groups according to their scores on both versions of the UCLA loneliness measure. The non-lonely group (N=24) had scores in the lower third of the distribution for both recent and general loneliness. The situationally lonely group (N=19) had scores in the top third for recent loneliness, but in the lower third for general loneliness. The chronically lonely group (N=23) had scores in the top third for both recent and general loneliness.56

Expressive communication was measured by videotaping "sender" subjects while they watched and rated the pleasantness of 25 slides. The videotapes were then viewed by four "receiver" subjects who made judgments about the sender subjects' reactions to each slide. Four measures were derived from the data, two reflecting the subjects' abilities to express themselves and two reflecting the subjects' accuracy as receivers. The category expressiveness score consisted of the number of times the observers correctly identified the type of slide the sender was viewing. The pleasantness expressiveness score reflected the correlations between the senders' pleasantness ratings and the four observers' identifications of her ratings. The receiver category scores and the receiver pleasantness scores were derived in the same way.57


57 Ibid.
Results were analyzed using a separate one-way analysis of variance for each of the four dependent variables. A significant main effect of loneliness on sender expressiveness, both for category transmission $F(2,63)=4.24$, $P \leq 0.02$ and for pleasantness transmission $F(2,63)=3.37$, $P \leq 0.04$ resulted. Loneliness did not have any significant effect on either receiver accuracy measure.\textsuperscript{58}

The Beck depression scores were analyzed in the same manner. As expected, the situationally lonely subjects and the chronically lonely subjects were significantly more depressed than the non-lonely subjects $F(2,53)=12.35$, $P \leq 0.0001$. Depression scores for the two lonely groups did not differ significantly. No significant difference was found in the sender ability of the chronically lonely and the non-lonely groups as might have been expected.\textsuperscript{59}

Gerson and Perlman noted that the most important finding of the study was the greater success of the situationally lonely as communication senders. This result supported the assumption that situationally lonely people are motivationally aroused to make interpersonal contact with others. They added that they do not conclude from the data that chronically lonely people are poor communicators. Receiver accuracy results pointed to the view that lonely people are more self-focused. The researchers speculated

\textsuperscript{58} Ibid, 260.

\textsuperscript{59} Ibid.
that the onset of situational loneliness may generate an egocentric orientation detrimental to receiver accuracy. 60

In summary, the Gerson and Perlman study found that situationally lonely female subjects tended to be successful communication senders, but not receivers. Loneliness was associated with depression in this sample of female undergraduate students.

The Bragg study. This study, which correlated loneliness and depression, was included to further delineate loneliness from depression. The purpose of the study was threefold: (1) to explore the relationship between loneliness and certain demographic and social characteristics of new college students, (2) to identify variables which might be of value in differentiating loneliness and depression, (3) to assess the value of causal attributions for loneliness in understanding the degree to which loneliness is accompanied by depression. 61

During the second and seventh weeks of the fall quarter, 333 introductory psychology students completed the Beck Depression Inventory, the Profile of Mood States, and the UCLA Loneliness Scale. Also included were measures of life-satisfaction, social activity, and perceived causes of loneliness. To identify discriminating factors between

60 Ibid.
loneliness and depression, extreme groups were formed of students who were high or low on the depression test and on the loneliness test. To evaluate the relationship between causal attributions for loneliness and depression, the attributions of the nondepressed, lonely students were contrasted with those of the depressed, lonely students. Bragg reported that loneliness and depression correlated $r = .49$ (significance level not noted), but that they had different correlates. Depression was reported to be associated with anger and dissatisfaction with the non-social aspects of life, but loneliness was not. Likewise, loneliness was reported to be associated with low initiation of contact with friends, but depression was not. The investigator suggested that those respondents who were both lonely and depressed manifested an additive combination of the characteristics of loneliness and depression, and differed significantly from students who were lonely but not depressed. They were reported to have been more likely to attribute their loneliness to their physical appearance, their personality, and their fear of rejection than were the non-depressed but lonely.\(^6\)

In conclusion, as Gerson and Perlman did, Bragg found a correlation between loneliness and depression. He further delineated the relationship by exploring attributes identified by the subjects of their loneliness. Depressed

\(^{62}\text{Ibid.}\)
lonely subjects identified stable attributions. Therefore, loneliness in depressed subjects appeared to be more of a function of their depression. It was interesting to note that stable attributes for loneliness were also identified by the UCLA study. Perhaps the UCLA scale was in part a measure of depression.

Loneliness and Death and Dying

Loneliness was a frequent topic in the death and dying literature. This review is indicative of how often the term lonely was used by writers to refer to dying persons. Only two research studies were cited pertaining to loneliness among dying or chronically ill persons.

Kübler-Ross' Investigations

Kübler-Ross, well known for her numerous interviews with dying patients, spoke of loneliness when she described the first two stages of dying. The first stage, denial and isolation, is a time when the person adheres to an unshakable belief in his own well-being despite the unconscious knowledge that death is approaching. As a result, the patient may refute hospital routine and prescribed treatment. This behavior can isolate the patient from hospital staff and sometimes even from the family. Kübler-Ross described one such patient as "a disheveled-looking young woman who sat desperately lonely on the edge of her bed, clutching the telephone to hear a sound."63

Similar isolation and resultant loneliness can occur during the anger stage of dying according to Kübler-Ross. She spoke of patients in this stage as feeling so much anger at being forced to give up control of their lives, that they alienate themselves from those around them. The thanatologist suggested that patients like these, who refuse contact with others due to their anger, are the most lonely. As did Brown, Peplau, and Moustakas, Kübler-Ross also wrote of defenses against loneliness.

Writers also described the loneliness resulting from forced detachment or separation from others in the environment. Weisman described what he called the "bereavement of the dying." It is a condition of depression, loneliness, and regression found among terminally ill patients who have been emotionally isolated and abandoned. He traced the syndrome to an enforced grieving for their own survivors. Hurlburt called the dying patient "the loneliest person in the hospital--people come and go, but few really encounter him as a person." Loneliness among dying persons was also associated with pain. Benoliel wrote:

It is not just physical pain or the fear of pain that affects these people, although these realities are present. It is also fear of once again

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64 Ibid., 50-81.
experiencing loneliness, compounded by the loneliness of facing death, an experience one must ultimately have alone.67

Loneliness was portrayed in the literature as almost concomitant with the experience of dying. Only two studies have been identified which collected empirical data concerning loneliness among dying persons. The first study reviewed explored loneliness among dying adults. The second focused on loneliness among chronically ill children.

The Dubrey and Terrill Study

Dubrey and Terrill, as part of a large nursing research study, interviewed 50 terminally ill hospitalized cancer patients to learn of their possible feelings of loneliness.68 Criteria for inclusion in the sample were: a medical diagnosis of cancer, a poor prognosis, consciousness and ability to comprehend and respond to questions, and a hospitalization of at least three days to allow for adaptation to the institution.

Subjects were asked "When in a 24 hour period from midnight to midnight, do you feel most lonely?" Thirty-five (70 percent) of 50 patients denied that they ever felt lonely in the hospital. Reasons given for not feeling


lonely included: being too sick and too tired; having family visits; perceiving of themselves as independent persons; having religious faith to rely upon; and being involved with hospital activities. Fifteen patients (30 percent) said they did feel lonely during their hospitalization. Seven (14 percent) identified the night time as the loneliest time (a finding supported by Odell's study\(^69\)); the others could not identify a time. Those who were able to describe the loneliness described feelings of: "sickness and upsetness," "like you are all by yourself," "like I want to cry," "depression, I guess," "hopelessness," "down in the dumps," "alone."\(^70\) It should be noted that all of these feelings describe feelings characteristic of depression.

When asked "What do you do to relieve this feeling of loneliness?" four of the 50 patients admitted to seeking sleep to relieve the feeling. Others answered "I wait until it passes off," "I think of other things," "I pick up the phone and call someone I know," "I say a few prayers and get some strength."\(^71\)

In summary of the findings of the Dubrey and Terrill study, the cancer patients denied being lonely. Only 30 percent of the sample said they were lonely, and those who


\(^70\) Dubrey and Terrill, 363.

\(^71\) Ibid.
admitted loneliness seemed to describe feelings of depression. This was an interesting finding when compared with Francis' finding of loneliness in slightly over 50 percent of hospitalized adults, and Hurlburt's remark that the dying patient is the loneliest person in the hospital.

Loneliness Among Dying Children

Krulik, in her descriptive study\(^72\) of school-age children with life-threatening disease (CLTD), utilized three projective measures to examine loneliness. Forty school-age children and their mothers were divided into two groups of 20 pairs. One group consisted of children with CLTD, and the other consisted of healthy children. Data were collected through the use of the "Who Scale," the "Comfortable Interpersonal Distance Scale" (CID), and a modified Thematic Apperception Test (TAT). Maternal interviews provided information concerning communication strategies used by both parents and medical personnel in discussing the child's illness with the child. Content analysis of these interviews revealed that all parents and involved medical personnel adapted an "open" approach to communication.\(^73\)

The "Who Scale," a paper and pencil test, included 16 stimulus items, or typical situations in which the child was


\(^73\)Ibid., 107.
the main actor. The subject was instructed to choose with whom they would like to interact or communicate (e.g., father, mother, sibling, friend, someone else, self). The assumption (based on Rotter's Social Learning Theory, Hall's Personal Space Theory and Sullivan's Interpersonal Theory) was that the lonelier the child, the less likely to choose peers for interpersonal interaction. The investigator reported a marginally significant finding in that the terminally ill children tended to choose adults for interaction in more situations than the healthy children ($P < .07$). A highly significant finding quoted was that the healthy group preferred to interact with other children more than the CLTD group ($P < .005$). 74

A set of projective pictures (TAT) was employed to elicit the children's indirect and fantasy expressions of loneliness. Scores on this test were used to test the hypothesis that CLTD children will respond to a set of projective pictures with more loneliness themes (i.e., aloneness, separation, death anxiety, threat to body image, suicide themes) than healthy children. T-test results showed no significant difference between the total number of loneliness themes in the responses of the two groups of children. However, the sick children responded with more aloneness subcategory themes ($P < .03$) than healthy children. 75 The specific aloneness themes were not reported.

75 Ibid., 94-98.
The CID was a paper and pencil test in a diagram form. Subjects plotted their preferable physical distance from stimulus persons. The hypothesis that the ill children will place human figures in a further distance than will healthy children in an interpersonal distance scale (CID) was not supported by the findings.76

In the Krulik study, overall loneliness scores were determined by combining the results of all three measures. Subjects were identified as "lonely" if they scored above the mean of the ill group on at least two of the three study tools. Eleven of the 20 (55 percent) ill children were lonely. Krulik reported that the lonelier children who were closer to the experience of crisis in illness (within four months), received a more detailed picture of life after death, and suffered from more visible side effects of medication than did those children who were less lonely.77

In summary of Krulik's findings, 55 percent of the CLTD children were lonely. These children responded with more aloneness themes and preferred fewer children for interaction than did the healthy children. A major weakness of the study identified by the investigator, however, was that the study tools did not differentiate between real situations and wishful thinking. In other words, responses could have reflected ideal situations versus reality. The

76 Ibid., 102-105.
77 Ibid., 155.
study's weakness identified by this researcher is that two of the three tools used to measure loneliness, the CID and the Who Scale, appear to have face validity for social isolation versus loneliness. If the aloneness themes elicited from the TAT were in fact a measure of loneliness, they probably represented primary loneliness.

Due to differences in the developmental levels of school-age children and adults, the two studies of loneliness among dying persons could not be compared.

Interpersonal Relationships and Cancer

Bowen's theory of "family reaction to death" provided a portion of the theoretical basis for the present investigation. Bowen maintained that terminal illness within the family can result in a "closed relationship system." Family members and significant others, as well as the dying person himself, sometime refrain from open communication due to their own anxieties concerning death.78

In a thorough review of the literature concerning the association of cancer and interpersonal relationships,79 Wortman and Dunkel-Schetter pointed out that significant others' feelings about cancer are largely negative, but they believe that they should remain cheerful and optimistic with

78 Bowen, 321-35.
the ill person. Behaviors such as: physical avoidance; avoidance of open communication, especially about cancer and its effects; and incongruent interactions can result from the conflict. Implications of these behaviors were illustrated by the following citation from Wortman and Dunkel-Schetter reporting findings of a 1979 study. They wrote:

Gordon et al. asked 136 patients diagnosed with breast, lung and sarcoma cancers whether or not they had experienced any of 109 problems commonly reported by patients during pilot testing. Of the 20 problems most frequently noted for all three diagnoses, seven were of an interpersonal nature (i.e. "communication with friends about cancer difficult," "discussing future with family difficult," "people acting differently after cancer"). In fact, the second most frequently cited problem was lack of open communication with the family. This problem was mentioned as frequently as suffering physical discomfort (by 63% of the sample), and much more frequently than various problems with medications or overall treatment.  

Lack of open communication with family members was identified as a significant problem for the cancer patients. The present study determined the relationship between openness of one's relationship system, which involves open communication, and loneliness among adults with metastatic cancer. Other studies cited in Wortman and Dunkel-Schetter's review were concerned with the relationship of the ability to cope with cancer and the quality of interpersonal relationships.

Summary

The review of the literature revealed that loneliness is a complex experience which has eluded objective measurement until recent years. Researchers have attempted to categorize loneliness as either a psychologic characteristic of an individual, or as a response to situational variables. Studies developed from the Sisenwein investigation gathered data about loneliness which seemed to impinge on the concept of depression. Francis constructed a seemingly more valid framework for loneliness as the result of physical separation from cathected persons and objects. The literature, however, supported loneliness as a response to psychologic separation as well. This specific facet of loneliness had not yet been explored through objective measure.

The dying person was portrayed in the literature as one particularly at risk to psychologic separation from significant relationships and was frequently labeled "lonely." The latter label, however, was not empirically validated.

The diagnosis of cancer was associated with problems in interpersonal relationships in the literature. In order to contribute to loneliness theory, especially as related to dying persons, the present study asked the question: Is there a relationship between secondary loneliness and openness in one's relationship system among adult clinic patients with metastatic cancer?
Chapter 3

METHODOLOGY

The purpose of this study was to determine if there is a relationship between secondary loneliness among adult clinic patients with metastatic cancer and openness in the relationship system with their most significant other. An ex post facto design was employed. In other words, the study was conducted after the variations in the variables occurred in the natural course of events. No manipulative control of the variables was exercised. It was a descriptive, correlational study; the aim was to determine the relationship between the variables of secondary loneliness and openness of one's relationship system, rather than to infer a cause-and-effect relationship. 81

Setting

The study was conducted in a large, southeastern, state-supported, teaching hospital cancer clinic. Patients with cancer are treated in the clinic on a regular basis with laboratory work, x-rays, chemotherapy and medical examination.

The chemotherapy clinic, specifically for the care of adults with metastatic disease, is held on Mondays and Fridays. Patients are scheduled for appointments beginning at 8:00 A.M. The last appointments are scheduled for 11:00 A.M. No bias dictates why patients are scheduled for a particular time or day. Patients arrive at the clinic and check in at the desk. A typical waiting period is 25 minutes before they are called to go to the laboratory for blood work. After their blood is drawn, they sit in the waiting area for approximately 30 to 45 minutes.

During the study, the clinic waiting area was filled with patients and their companions. The waiting area was a thoroughfare for hospital personnel and patients arriving by ambulance to be admitted to the hospital. Patients waited in this crowded, busy area until called by the nurse to go to the x-ray department, or to the examining rooms. The researcher made use of the waiting periods to conduct the structured interviews. Introductions and explanations of the study took place in the clinic waiting area. After the patient agreed to participate in the study, the patient and the researcher went either to the clinic library, if vacant, or to an area in the clinic hallway where the interview could not be overheard by others. Two bedridden patients were interviewed in the examining rooms with curtains drawn for privacy.
Subjects.

The population consisted of adult patients with metastatic cancer who received medical treatment or examination at the chemotherapy clinic in June, 1980. All patients who met the following criteria were eligible to participate in the study:

1. Eighteen years of age or older;
2. Diagnosis of metastatic cancer documented in the medical record (those with metastatic cancer are in the final stage of the disease; therefore, all subjects were considered terminally ill);
3. Ability to understand and speak English;
4. Mentally alert so as to be able to respond to the SMLRS;
5. Living at home during the study (those persons who were residents of nursing homes, hospitals, prisons or other institutions were excluded from the study because of physical separation from their significant relationships--the study was focused on loneliness associated with psychologic separation);
6. Non-visible cancer (it was assumed that persons with visible tumors or deformities due to cancer would experience a greater degree of alienation than the population at large);
7. Scheduled for an appointment to be seen in the chemotherapy clinic during the month of June, 1980.
A total of 107 patients met the above criteria. A probability sample of 40 was drawn for this study. The sample consisted of adults with a variety of cancers. Primary sites included: breast, colon, lung, stomach, kidney, pancreas, esophagus, uterus, bone, and unknown primary sites. For the most part, the participants' physical appearances were unremarkable for effects of the cancer. A few patients were cachectic, and a few wore wigs due to hair loss from chemotherapy. Most of the patients were independently mobile at the time of the study. A few patients used canes and walkers, one was confined to a wheelchair, and two were bedridden. Subjects neither exhibited nor complained of pain during the interviews. On numerous occasions, they expressed frustrations over the length of time spent in the clinic. All subjects were assured that participation in the study would not prolong their clinic visit. The researcher did not observe the patients to be outwardly anxious or fearful, which might be expected of persons waiting for blood to be drawn or chemotherapy to be given.

Instrumentation

The data collection tool, the SMLRS (Appendix A), was adapted by the investigator from Francis' SMLC. The instrument closely resembled Francis' tool in format. Her tool measured secondary loneliness and cathectic investment,
whereas the SMLRS measured secondary loneliness and openness of one's relationship system.

The SMLRS is a structured interview schedule. The major strength for this method was that the investigator was able to use her interview skills to enhance the quality of the data. Also, according to Polit and Hunglar, response rates tend to be higher with face-to-face interviews than with questionnaires. "Respondents are apparently more reluctant to refuse to talk to an interviewer who is directly in front of them than they are to ignore a questionnaire."82 The lack of anonymity was recognized as a major disadvantage to the data collection method employed. Although confidentiality was guaranteed, persons are less likely to offer socially unacceptable responses (i.e., admit to feelings of loneliness) in a face-to-face interview.83

The instrument consisted of 11 items. The first item identified the person in whom the subject was most cathectically invested. This person was identified as the subject's most significant other. Four items (2,3,5,6) generated data representative of the openness of the respondent's relationship system with this person. The items were constructed around Bowen's concepts of open and closed relationship systems. Response categories were ranked on a continuum from closed to open relationship systems. Item 4 was included to encourage the respondent to

82Polit and Hunglar, 352.
83Ibid.
answer the next three items of the SMLRS (5,6,5-6A) with deepest concerns and innermost thoughts in mind. Four items (5-6A,7,8,8A) elicited data concerning feelings of loneliness. These items modeled Francis' loneliness items, but were designed to elicit feelings associated with psychologic separation versus physical separation. Items 9 and 11 provided more subjective data concerning loneliness in order to explore what the respondent was actually feeling. The word loneliness was not mentioned until item 10 of the SMLRS. This item made loneliness a respondent category—a self-report measure of loneliness. The final item of the interview schedule stimulated the self-ascribed lonely respondent to describe the feeling of loneliness.

The SMLRS generated two scores. The responses to the relationship system items and the loneliness items were ranked and given response category values from 1 to 4. According to previous item responses, a score of zero could be received on two of the loneliness items. The scores on each of the sets of items were totalled. The sums represented the respondent's relationship system score (RS) and loneliness score (LS). The highest possible score on each set was 16. The lowest possible RS score was 4. The lowest possible LS score was 2. Higher scores on the RS items represented greater degrees of openness in one's relationship system. Higher scores on the LS items represented greater degrees of secondary loneliness.
Other than face validity, validity and reliability for the presently adapted tool are unknown. Validity refers to the degree to which an instrument measures what is purported to measure. Validity of psychologically-oriented measures is difficult to support due to the abstract nature of the variables. As cited in Chapter 2, Francis reported high criterion-related validity for her loneliness scale by correlating an external criterion, the respondent's self-rating of loneliness, with the objective measure of loneliness. A test-retest reliability coefficient for Francis' loneliness items was $r=0.980$.\textsuperscript{84}

Procedure

The researcher presented the plan for the investigation to the physicians and nurses with administrative authority for the clinic where the study was to take place. The proposed plan was also submitted to the University Committee on the Conduct of Human Research. Permissions were granted to implement the study.

Data were collected on each of nine Mondays and Fridays in June, 1980. On the day prior to each data collection day, the medical records of all patients with clinic appointments for the next day were reviewed to ascertain age, documentation of the diagnosis of metastatic cancer, non-visibility of cancer, and place of residence. The patients who met the previously stated criteria for the

\textsuperscript{84} Francis, "Loneliness: Measuring the Abstract," 155.
study were assigned a number from one to N. Nine sampling frames were compiled in this manner. Five numbers were randomly selected from each list each data collection day. The patients whose names corresponded to the five numbers were interviewed. If a patient did not wish to participate in the study, did not meet the clinic appointment, or was judged not to be mentally alert so as to be able to respond to the SMLRS, the patient assigned the next consecutive number was selected, and so on.

As the selected subjects arrived at the clinic and it was determined that they would be waiting for at least 20 minutes, the purpose, nature and time involvement of the study were explained to each individual subject. If the subject agreed to participate, a signed informed consent was obtained (Appendix B). The researcher and the subject proceeded to an area in the clinic which provided privacy. The clinic nurses were informed of the patient's location in case the patient was needed. If a nurse called for the patient during the interview, the interview was terminated and continued during the next waiting period.

The researcher administered the SMLRS strictly according to the "Preliminary Procedure" guidelines (Appendix A). Each question was asked exactly as written. If the subject did not understand the question or had difficulty answering, it was repeated. Items were restated only when the investigator judged the respondent to have misinterpreted the question. Each of the possible responses
were stated before the respondent's answer was recorded. The respondent chose which response most closely described his thoughts.

The interview process was repeated for five subjects each day. The interview took from 10 to 20 minutes to administer, depending on how verbal the respondent was. A total of 40 patients were interviewed. Only one patient refused to participate in the study. Each subject's age, race, gender and primary tumor site were noted in order to describe characteristics of the sample.

Summary

The chapter was a detailed description of the research design, the subjects, the data collection tool and the research process of the present study. The analysis and interpretation of the data follow in the next chapter.
Chapter 4

DATA ANALYSIS AND INTERPRETATION

A descriptive correlational study was conducted to test the hypothesis that there is an inverse relationship between secondary loneliness and openness of one's relationship system among adult clinic patients with metastatic cancer. The researcher employed an adapted version of Francis' SMLC as the data collection tool. Structured interviews were conducted over a period of nine weeks with 40 randomly selected subjects. Two scales within the SMLRS measured the subjects' degrees of loneliness and openness of their relationship systems with their most significant other.

Analysis of the Data

The analysis of the data consisted of computing the total raw score for the relationship system variable and the total raw score for the loneliness variable of each subject. The scores for the relationship system items and the loneliness items were considered ordinal data. The scores were ranked along a continuum from most open to most closed relationship system, and from most lonely to least lonely. The item responses are ranked in an ordinal sequence. Distances between the response categories of both scores are not
considered equal. The Spearman rank correlation coefficient, a nonparametric statistic used to measure association between two variables ranked in ordinal scales was used to test the hypothesis.

Some Characteristics of the Sample

The sample consisted of 40 adults with metastatic cancer who received medical treatment at a large southeastern teaching hospital cancer clinic in a month's period of time. The sample ranged in age from 36 to 82, with a mean age of 60.25. The frequency distribution of the ages of the 40 subjects is presented in Table 1

Table 1
Frequency Distribution of Age

<table>
<thead>
<tr>
<th>Age in Years</th>
<th>Number of Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-39</td>
<td>2</td>
</tr>
<tr>
<td>40-49</td>
<td>4</td>
</tr>
<tr>
<td>50-59</td>
<td>14</td>
</tr>
<tr>
<td>60-69</td>
<td>14</td>
</tr>
<tr>
<td>70-79</td>
<td>4</td>
</tr>
<tr>
<td>80-89</td>
<td>2</td>
</tr>
</tbody>
</table>

Of the 40 subjects, 28 (70 percent) were Black and 12 (30 percent) were White. Twenty-three (57.5 percent) were female and 17 (42.5 percent) were male. The frequency distribution of race and gender is presented in Table 2.

Table 2
Frequency Distribution of Race and Gender

<table>
<thead>
<tr>
<th>Race</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>11</td>
<td>17</td>
<td>28</td>
</tr>
<tr>
<td>White</td>
<td>6</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>23</td>
<td>40</td>
</tr>
</tbody>
</table>

Scores Generated by the SMLRS

This study was focused on the relationship of the variables of openness of one's relationship system and secondary loneliness. No attempt was made to identify individuals with open or closed relationship systems, or to identify lonely or non-lonely individuals. The SMLRS generated two scores, the relationship system (RS) score and the loneliness (LS) score.

The frequency distribution of the RS scores is graphically presented in Figure 2.
Observed relationship system scores ranged from 5 to 16. Possible total scores for the relationship system items range from 4 to 16. The midpoint of the possible RS scores is 10. Twenty-seven (67.5 percent) of the 40 subjects scored above the midpoint of the possible scores, indicating a greater degree of openness in their relationship systems. Only four subjects reported that their relationships with their most significant others have grown apart since they became ill. Two subjects reported increased distance in their relationships due to terminal illness. One subject reported a fear of "giving cancer" to his spouse as causing the relationship to grow apart. Another respondent reported
an inability to have sexual intercourse which he related to his cancer as the cause. Nine subjects stated that their relationships have grown closer due to their illness, and 27 reported no change in their relationships since they became ill.

The frequency distribution of the LS scores is illustrated in Figure 3.

![Frequency of LS Scores](image-url)
Observed loneliness scores ranged from 2 to 12. Possible total LS scores for the four items range from 2 to 16. The midpoint of these possible scores is nine. Only four (10 percent) of the 40 subjects received LS scores higher than this midpoint measure.

Statistical Treatment

Hypothesis

The Spearman rank correlation coefficient was employed to test whether there is a relationship between the variables of secondary loneliness and openness of one's relationship system with a significant other among adult clinic patients with metastatic cancer. The test was chosen because the data met the requirement that both variables be measured in at least an ordinal scale so that the subjects' scores may be ranked in two ordered series. 86

In applying the test, both the RS scores and the LS scores were ranked, the sums of the two sets of ranks were calculated, and the value of the correlation coefficient ($r_s$) was calculated. Since the data consisted of a large number of ties, the formula which corrects for ties was used. The value of $r_s$ was calculated to be -0.343. The negative value represented an inverse relationship between the variables. Testing for significance, $t$ was calculated to be -2.253. To be significant the obtained value of $t$
must be equal to or greater than the critical value. The critical value for \( t \) with a sample size of 40 at the .05 level of significance is 1.687. Since the obtained value of \( t \) (-2.253) was greater than the critical value (1.687), it was concluded that \( r_s \) was significantly different from zero.

Self-Rating of Loneliness

The last two items of the SMLRS explore the subjects' perceptions of their own feelings of loneliness. Item 10 asks "would you say you experienced 'loneliness' while you have been ill?" The four response categories range from "very much so" to "no." Fourteen (35 percent) of the 40 subjects reported feelings of loneliness. As Francis did, in order to establish criterion-related validity for the presently adapted loneliness scale, this subjective measure was correlated with the supposed objective measure. Since the variables to be correlated, the subjective loneliness scores and the objective loneliness scores, met the requirements for use of the Spearman rank correlation coefficient, the same statistical test was employed as a test of association. Using the formula which adjusts for ties, the coefficient was calculated to be \( r_s = -0.89 \). The negative value represented an inverse relationship between the variables. Testing for significance, \( t \) was calculated to be -11.869 which is significant at the .05 level. Therefore, there was a significant inverse relationship between the subjective and objective measurements of loneliness. In
other words, a subject's low score on the four item schedule for the measurement of loneliness was related to a high score on the subjective measure of loneliness.

Interpretation

Hypothesis,

The findings of the present study support the hypothesis that there is an inverse relationship between secondary loneliness and openness of one's relationship system with a significant other among adult clinic patients with metastatic cancer. Furthermore, the findings lend support to the theoretical framework for loneliness proposed by the study that secondary loneliness is associated with psychologic separation from relationships as well as with physical separation. It cannot be concluded from the findings, however, that adults with terminal cancer experience to a significant degree the loneliness associated with this psychologic separation from significant others.

No other research study cited in the literature correlated loneliness with openness of a relationship system or with open communication with a significant other. The study most closely related to the present study was the Gerson and Perlman study of loneliness and expressive communication. The investigators found that situationally lonely female students tended to be successful communication senders, but not receivers. The present findings were inconsistent with those of Gerson and Perlman. Secondary loneliness and
openness of relationship systems, which involves both receiver and sender open communication, were found to be inversely related in adults with metastatic cancer. The inconsistent findings are attributed to the different populations studied. The diagnosis of metastatic cancer was an extraneous variable which rendered the findings comparable only to studies of terminally ill cancer patients.

The Dubrey and Terrill study was the only research report found in the literature that investigated loneliness among adults dying of cancer. Only 30 percent of the sample of hospitalized terminally ill cancer patients reported feelings of loneliness. The present study employed an objective measure of loneliness, in contrast to the self-report measure of the Dubrey and Terrill study, and was not concerned with identifying "lonely" subjects. But only 10 percent of the present sample of non-hospitalized cancer patients scored above the midpoint of the possible scores on the objective measure of loneliness. This finding was supportive of Dubrey and Terrill's finding and contradictory to implications in the literature that dying people are characteristically lonely.

Self-Ratings of Loneliness

Of further support and comparable to Dubrey and Terrill's finding was the present finding that only 35 percent of the dying adults reported feelings of loneliness in

87 Rosenburg, 56.
response to the subjective loneliness item. More subjects rated themselves lonely than scored above the midpoint on the subjective item.

The inverse relationship between the objective and subjective measurements of loneliness was an unexpected finding since the loneliness items employed in the present study were adapted from Francis' loneliness items. In her studies, the items positively correlated with the same subjective measure item.88

Three possibilities are proposed to explain the contradictory finding. The first is that the tool, as presently adapted, does not measure secondary loneliness, thereby raising the fundamental question of instrument validity. The second possibility is that the subjects did not respond candidly when asked if they experienced loneliness during their illness.

The third and most likely possibility is that loneliness is ascribed a different meaning by a terminally ill population than by a non-terminally ill group. When asked if they experienced loneliness, the cancer patients may have been stimulated to explore feelings of primary loneliness instead of secondary loneliness. Since man must ultimately die alone, and primary loneliness is the feeling of being a singular being unable to merge with another, these persons who were approaching death at the time of the study may have responded in terms of their primary loneliness. The cancer

88See Chapter 2, p. 28.
patients described their feelings of loneliness with words like "worried" and "nervous." The subjects described feelings of anticipation. One man said he felt "lost around the house" and that he wonders about "what will happen next, and how my family will end up after I am gone." Another man characterized his loneliness by calling it "a dead end street, like you don't know which way to turn." A woman described her loneliness as "waiting, sitting and waiting." Unlike findings from previous loneliness research reported in Chapter 2, these dying persons associated loneliness with nervousness and worry about the future. Thus, when applied to a terminally ill population, the subjective and objective measures of loneliness within the SMLRS probably represent primary and secondary loneliness, respectively, which explains the finding of the lack of a positive relationship between the two.

Further discussion is necessary to explain the inverse relationship between the two measures of loneliness. It is proposed that the degree to which the cancer patients experienced secondary loneliness was inversely related to the degree to which they reported feelings of loneliness because terminally ill persons often disengage from relationships in preparation for death. This process of separation helps the individual to achieve a more peaceful acceptance of death.\textsuperscript{89} One does not experience primary loneliness\textsuperscript{89}Kübler-Ross, 112.
unless associations with cathetic investments are intentionally broken or unless relationships are never established. It seems that man establishes relationships in order to guard against primary loneliness. Therefore, as primary loneliness increases, secondary loneliness decreases because the individual no longer concerns himself with relationships. If the dying person still depends on relationships for protection against primary loneliness, then one would experience secondary loneliness, or the pain of being separated from relationships, instead of primary loneliness.

Finally, in further support of the above explanation for the finding, the presently adapted objective loneliness measure is more similar to Francis' loneliness measure than the present sample of adults with metastatic cancer is to Francis' samples of hospitalized adults. Therefore, the researcher attributes the inverse relationship between the present objective and subjective loneliness measurements to the uniqueness of the population studied--the terminally ill cancer patient.

Summary

The relationship system scores and the loneliness scores generated by the SMLRS were examined and statistically analyzed. The researcher found that there was an inverse relationship between openness of one's relationship system with a significant other, and secondary loneliness among adult clinic patients with metastatic cancer.
The objective measurement of loneliness obtained from the data was inversely related to the subjective measurement of loneliness. The researcher proposed that the inconsistent measurements were due to the uniqueness of the experience of loneliness of the population studied. The data supported the finding of the only other study of loneliness among dying adults, that dying adults tend not to be lonely.
Chapter 5

SUMMARY, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

Summary and Conclusions.

The purpose of this study was to determine the relationship between secondary loneliness among adult clinic patients with metastatic cancer and openness in the relationship system with their most significant other using the structured interview method. The design of this research was a descriptive correlational one with a probability sample of 40. The intent of this investigation was to build upon existing knowledge of loneliness, especially as related to persons with terminal cancer.

The structured interview method was selected because it allows the interviewer to use interview skills in order to explore sensitive subjects, such as loneliness and relationships with significant others. Data were collected using the investigator's adaptation of Francis' SMLC. The presently adapted tool incorporates Bowen's theory of "a family's reaction to death" and a combination of Francis' and Brown's loneliness theories. Forty adults with metastatic cancer were interviewed at a southeastern teaching hospital clinic. Scores for the variables of secondary
loneliness and openness of relationship system were generated from the interviews.

Data were analyzed using the Spearman rank correlation coefficient. The results of this investigation supported the hypothesis that there is an inverse relationship between secondary loneliness and openness of one's relationship system among adult clinic patients with metastatic cancer. In an attempt to establish criterion-related validity for the presently adapted loneliness scale, an inverse relationship was found between the objective and subjective measures of loneliness.

Recognized as a major limitation to the study was that reliability and validity of the data collection tool were unknown. The loneliness items of the SMLRS were adapted from Francis' tool, but the relationship system items were constructed by the researcher for this study. The researcher has some doubt as to the applicability of objective measurement to a relationship system. Since loneliness is such a complex abstraction, correlating it with such a complex process such as a relationship system between two persons may have been premature.

Furthermore, the loneliness measured in the study was the loneliness a person experiences as associated with psychologic separation from only his most significant interpersonal relationship. Therefore, the loneliness measure cannot be considered representative of overall secondary
loneliness, but only representative of the loneliness one experiences when psychologically separated from one person.

Implications.

The results of the study contributed further knowledge for the development of a loneliness theory. The findings suggested that there are lonely people who are not separated by physical distance from their cathetic investments. Secondary loneliness among adults with metastatic cancer was associated with closed relationships systems (which involve a lack of open communication between two persons) with one's most significant other.

The implication for nursing practice is that secondary loneliness among adults with a terminal illness may be prevented, or at least alleviated by a specific nursing intervention to open communication between the individual with cancer and significant others. Through interactions with the patient and other members of the family system, the nurse can identify those persons at greater risk to loneliness by assessing communication patterns. The nurse should provide a model of open, congruent communication for the family members and the dying person to follow. Misconceptions about how one should communicate with dying persons can be resolved by teaching and practicing specific concepts from communication theory.

Finally, loneliness seems to acquire a unique meaning for terminally ill persons. Some individuals need and
desire to maintain relationships with others as they approach death, and some individuals prefer to break away from relationships. Therefore, secondary loneliness is not concomitant with the experience of dying, as much of the literature implied.

Recommendations.

As a result of the study, the researcher recommends that:

1. A similar study be conducted using open-ended questions to measure the degree of openness in the respondent's relationship system. In this way, the unique relationship processes of each respondent could be explored in further detail.

2. A study be conducted to determine if a specific nursing intervention aimed at opening communication between family members and the dying person will in fact reduce the amount of secondary loneliness among adults with metastatic cancer.

3. A study be conducted to determine the relationship between secondary loneliness among terminally ill adults and a variable such as locus of control. Evidently, not all dying persons need or want to maintain interpersonal relationships.

4. A study be conducted to explore the present finding of an inverse relationship between the subjective and objective measures of loneliness.
REFERENCES


Woodward, John C., and Mary Jane Visser. "Loneliness: When and Whom Does it Touch?" Farm, Ranch, and Home Quarterly, University of Nebraska-Lincoln College, Fall, 1972.


Secondary Sources.


APPENDIX A

SCHEDULES FOR THE MEASUREMENT OF LONELINESS AND OPENNESS OF RELATIONSHIP SYSTEM
Preliminary Procedure

1. Hello. My name is Katherine Berry. I am conducting a study as a requirement for a Master's degree in nursing at the Medical College of Virginia.

2. You are one of 40 persons chosen by chance from all those with chemotherapy clinic appointments in a month's period of time to participate in this study.

3. The purpose of the study is to examine communication between family members during illness.

4. Permissions from the university's research committee and the clinic nurses and doctors to conduct this study have been obtained.

5. Your name will not be used.

6. The interview will take approximately 20 minutes. You are not obligated to participate, but your input will be greatly appreciated.

7. If he is willing to participate, ask him to sign the consent form. Secure privacy and begin.

1. First, who is the most important person in your life? ___________________________ What relation is he to you? ________

(If R. cannot identify one particular person ask) With whom do you consider you have your most significant relationship? _________________

(If R. has difficulty answering ask) Who is most closely involved in your life? ........................................

If R. still cannot identify one significant other, terminate the interview and thank him for his time.

2. Has your relationship with ___(name)___ changed since you have been ill? (Circle yes or no).

(If R. answers yes, ask) How has your relationship changed? It has grown .........................

<table>
<thead>
<tr>
<th></th>
<th>much closer</th>
<th>somewhat closer</th>
<th>further apart</th>
<th>much more apart</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2A. (If R.'s relationship has grown closer ask) Can you say what is happening that might be causing the relationship to grow closer?

2B. (If R.'s relationship has grown apart ask) Can you say what is happening that might be causing your relationship to grow further apart?

2C. (If R. answers no ask) What is your relationship like?

We share our inner most thoughts (even the most sensitive subjects) with each other 4 rs
We share most everything; there are some thoughts we can't always share 3 rs
We usually can't talk about sensitive subjects due to fear of upsetting the other 2 rs
We always avoid discussion of sensitive subjects 1
3. How much time do you spend with ______(name)____ now?

<table>
<thead>
<tr>
<th></th>
<th>Every minute possible</th>
<th>Most of the time</th>
<th>Fair amount</th>
<th>Very little</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

4. Take a minute to think about this next question. What topic or concern seems to occupy most of your thoughts now?

(If R. has difficulty answering ask) What is uppermost in your mind at this time in your illness and your life?

5. Are you able to discuss ______(topic)____ with ______(name)____?

<table>
<thead>
<tr>
<th></th>
<th>Some; not as I would like</th>
<th>Fairly well</th>
<th>Yes, without hesitation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

6. Is ______(name)____ able to discuss ______(topic)____ with you?

<table>
<thead>
<tr>
<th></th>
<th>Some; not as I would like</th>
<th>Fairly well</th>
<th>Yes, without hesitation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

5-6A. (If no. 5 and no. 6 rated 4 omit) Do you miss being able to talk openly with ______(name)____?

<table>
<thead>
<tr>
<th></th>
<th>Very much so</th>
<th>Most of the time; not always</th>
<th>Occasionally</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
7. Are you satisfied with your relationship with ____ (name) ____ since you have been ill?

<table>
<thead>
<tr>
<th>Satisfied</th>
<th>Most of the time; not always</th>
<th>Occasionally</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very much so</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

8. Do you miss or feel separated ____ (name) ____ since you have been ill?

<table>
<thead>
<tr>
<th>Satisfied</th>
<th>Most of the time; not always</th>
<th>Occasionally</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very much so</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

8A. (If no. 8 rated 4, 3, or 2 ask) Does this feeling of missing get better or worse the longer you are ill?

<table>
<thead>
<tr>
<th>Satisfied</th>
<th>Worse</th>
<th>Better</th>
<th>Much better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Much worse</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

9. (If no. 8 rated 4 or 3) Think about this question and tell me in your own words. Try to describe what it has been like for you, or how it feels to you, to miss or to feel separated in this way from your most important relationship.
10. Would you say you experienced "loneliness" while you have been ill? (Do not include any time you may have spent away from home.)

<table>
<thead>
<tr>
<th></th>
<th>Very much so</th>
<th>Yes, but it was broken up by...</th>
<th>A little</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

11. (If no. 10 rated 4 or 3 ask) Can you describe this feeling of loneliness?
APPENDIX B

INFORMED CONSENT
INFORMED CONSENT

I agree to participate in the study that Katherine Berry, a graduate nursing student at the Medical College of Virginia, Virginia Commonwealth University, is conducting at the MCV Joint Cancer Clinic.

The purpose and nature of the study have been explained to me. The purpose of the study is to examine communication with family members (or significant others) during my illness. Mrs. Berry will ask me a series of questions which should take no longer than 20 minutes. Privacy during the interview will be maintained.

I understand that there will be no risk involved in this study. It will not affect my relationship with the clinic in any way. My name will not be used. I may withdraw from the study at any time.

Signature_____________________________________

Witness________________________________________

Date__________________________________________
APPENDIX C

LETTERS OF PERMISSION
Date: 2/28/80

Katherine N. Berry

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Sincerely,

Gloria Francis, Ph.D., F.A.A.N.
Professor and Director of Research

ab

cc: Ms. Katherine Berry
May 14, 1980

Katherine N. Berry

Dear Ms. Berry:

This letter is official permission for you to conduct a research study for your thesis at the Joint Cancer Clinic of the Medical College of Virginia Hospitals, to begin approximately June 2, 1980.

I want to wish you luck in this and all future endeavors.

Sincerely,

[Signature]

Director
Nursing Services

WB: bew

cc: Marilyn Dunavant
Barbara Satterwhite
VITA