THE RELATIONSHIP BETWEEEN HIV DISEASE CLASSIFICATION AND DEPRESSION AND SUICIDAL INTENT

A DISSERTATION

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

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To the Dean for Graduate Studies and Research:

I a submitting herewith a dissertation written by B. Gayle Twiname, M.S.N., M.Ed. entitled "HIV Disease Classification and Depression and Suicidal Intent." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Nursing.

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DEDICATION

This study is dedicated to the memory of my parents who supported all of my endeavors and encouraged me to take risks. I love and miss them.

Beatrice DeNyke Hunter Twiname
(1910-1986)

and

Dr. James Dean Twiname
(1900-1988)

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THE RELATIONSHIP BETWEEN HIV DISEASE CLASSIFICATION, DEPRESSION AND SUICIDAL INTENT

ABSTRACT
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The purpose of this nonexperimentally designed study was to investigate the relationship between HIV disease classification, depression and suicidal intent. A convenience sample of eighty HIV infected persons was obtained from The Bering Care Center in Houston, Texas. The Beck Depression Inventory (BDI), the Hopelessness Scale (HS), and a Demographic Data Sheet (DDS) were used to collect data.

Subjects were classified into three groups; HIV+ (19;24%), ARC (26;33%), and AIDS (35;43%). The majority of subjects were male (77;96.3%) homosexuals (57;71.3%) who had completed some college education (44;55%). Thoughts of suicide occurred at some time since HIV diagnosis (70;88%).

An ANOVA indicated a significant difference between subjects with ARC (X=9.6923, n=26) subjects with AIDS (X=8.8571, n=35), and subjects who were HIV+ ($\underline{X}$=13.2105, n=19) on measures of suicidal intent. Subjects with ARC ($\underline{X}$=23.1538, n=26) and AIDS ($\underline{X}$=23.1286,n=35) were significantly more depressed than HIV + subjects (X=14.8421, n=19). These findings indicate a need for early assessment and intervention.

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CHAPTER ONE

Introduction

In January 1989 the Legislative Task Force on AIDS in Texas projected that 45,000 Texans would be dead or dying from Acquired Immunodeficiency Syndrome (AIDS) within 4 years, and little has been done to counter the likelihood of further increases beyond 1993 (Steele, 1989). The State of Texas is fifth among all states in the number of people reported to have AIDS, and Houston is fourth among cities in the nation (Steele, 1989). Since 1986 AIDS has been the leading cause of death for young men ages 25-44 in Houston (Steele, 1989). There are an estimated 100,000 Texans who are infected with the Human Immunodeficiency Virus (HIV), many of whom will develop serious illnesses and disabilities, and most of whom will eventually die of complications from the HIV infection (Steele, 1989).

In the U.S., the two year post-AIDS diagnosis case mortality rate was about 70%, with 88% of all United States AIDS cases falling between the ages of 20-49 (Fawzy, 1989). A majority of individuals with HIV disease are young and at the peak of their chosen careers when they are forced to

resign their jobs, and lose social support, financial support, and self-esteem (Lewis, 1988). When one considered the young age of the victims, the profound loss of income, and potential economic productivity to both the individual with AIDS and to society in general, the indirect economic and social impact of this disease was substantial (Steele, 1989). Steele (1989) projected that by 1992, more than 300,000 Americans will be diagnosed with AIDS, and 1.5 million Americans will be HIV seropositive (Steele, 1989).

Because of the poor prognosis associated with AIDS, and because a large majority of HIV seropositive individuals will eventually develop AIDS, the diagnosis itself was catastrophic (Morin & Batchelor, 1984). Both AIDS patients and patients with AIDS-Related Complex (ARC) have reported feelings of depression (Barbuto, 1984; Blaney, Millon, Morgan, Eisendorfer, & Szapocznik, 1990; Dilley, Ochitill, Perl & Volberding, 1985; Fawzy, 1989; Holland & Tross, 1985; Perry & Markowitz, 1986; Temoshok, Zich, Mandel, & Mouton, 1986). ARC patients experienced even more psychosocial distress than those with AIDS, possibly due to the greater ambiguity of the ARC diagnosis (Blaney et al., 1990; Ragsdale & Morrow, 1990; Temoshok et al., 1986). Suicide rates had also been noted to be higher in AIDS patients than

in the general population (Marzuk, Tierney, Tardiff, Gross, Morgan, Hsu & Mann, 1988).

Further research is needed to facilitate the understanding of psychosocial risk factors at all stages following a diagnosis of HIV disease. Recently it was demonstrated that the psychosocial impact of the disease was worse than the physical impact especially during the ARC phase (Ragsdale & Morrow, 1990). In order for nurses to provide adequate care to patients with HIV disease, it was necessary to determine both the physical and the psychosocial problems they experienced.

Depression is common in persons with HIV disease and may be viewed on a continuum from transient sadness to debilitating major depression (Dilley, Pies, & Helquist, 1989). Depression may also be a manifestation of the disease process itself (Dilley, et al., 1989). According to Lewis (1988), most people who are HIV infected have thought about suicide due to feelings of despair, loss of control, helplessness, the immediate crisis and/or the fear associated with not knowing what the future holds.

The Problem of Study

Due to the lack of research available on the psychosocial impact of HIV disease and the frequent feelings of despair experienced by those with HIV disease, the

feelings of depression and suicidal ideation experienced by HIV infected individuals needed further investigation. The problem of this study was to answer the question, "Is there a significant relationship between HIV disease classification, depression, and suicidal intent in individuals with HIV disease"? Results of this study could be used by nurses in the design and execution of comprehensive care to persons with HIV infection throughout the disease trajectory.

Rationale for the Study

Research on HIV disease had been primarily directed toward the medical aspects of the illness in an attempt to find an effective treatment, identify risk factors, and isolate an infectious agent (Coates, Temoshok, & Mandel, 1984). Research conducted on other chronic infectious diseases indicates that psychosocial factors may increase susceptibility, influence the course of the disease, and contribute to health-promoting or health-damaging behaviors (Coates et al., 1984).

Research focusing on the psychosocial aspects of HIV disease is needed. According to Blaney, et al., (1990), there was a dearth of information regarding the time period from HIV seropositivity to the development of the first clinical symptoms of AIDS. The fact that the emotional

stress that occurs following HIV seropositivity continues throughout the various stages that follow has important implications for HIV disease progression (Blaney et. al., 1990). Ragsdale & Morrow (1990) found that various aspects of quality of life were impacted as the disease progressed and that the psychosocial impact was greater than the physical impact.

People with HIV disease experienced a "roller coaster of emotions" as they faced their mortality and death often using the defense mechanism of denial in an attempt to deal with their illness (Lewis, 1988). Denial is a major factor in HIV disease. Not only did the individual experience denial, but so does society, community, family, and friends (Kubler-Ross, 1987). Denial of the illness was often related to the fear of contagion, negative attitudes toward the populations most affected, the climate of blame, and the stigma of HIV disease (Lewis, 1988). This denial was frequently extended due to the ways in which the disease was contracted: such as facing the reality of a child's homosexuality; a husband's bisexuality or infidelity; or a blood transfusion received out of necessity (Kubler-Ross, 1987). The anger, rage, and frustration that individuals with HIV disease dealt with on a daily basis, as well as the multiple losses of friends, family, lovers, and financial

security, all led to depression (Kubler-Ross, 1987). Kubler-Ross (1987) mentioned a young gay male who had been to the funerals of close friends on a weekly basis for so long that he became physically as well as emotionally exhausted.

The psychosocial aspects of the continuum from HIV seropositivity to ARC to AIDS and eventual death cannot be overlooked. Nurses can focus on caring for individuals in a holistic manner, concentrating not only on physical problems, but also on psychosocial and spiritual dimensions. As physicians focus on the origin and cure of AIDS, nurses can study the psychosocial impact of the disease.

Conceptual Framework

Both Orem's (1985) General Theory of Nursing and Kubler-Ross'(1969) Stages of Dying composed the conceptual framework for this research. Orem's theory was used as a foundation for understanding the impact of HIV disease on an individual's abilities to provide self-care, as a rationale for why nursing care was essential, and as an explanation for some of the psychological needs that individuals with HIV infection possessed. The stages of dying provided a basis for understanding aspects of a continuum experienced by individuals with HIV disease.

Since 1985, Orem's work had been described as a General

Theory of Nursing which included the three related theories of self-care theory, self-care deficit theory, and nursing systems theory (Marriner, 1986; Meleis, 1985; Parse, 1987). Self-care deficit theory formed the fundamental basis of the General Theory of Nursing and was the basis of this study (See Figure 1).

Orem's theory was predominantly developmental in nature and could be classified under the totality paradigm as defined by Parse (1987). The totality paradigm provided that "goals of nursing focus on health promotion, care and cure of the sick and prevention of illness" (Parse, 1987, p.32). Further, the totality paradigm promoted quantitative research processes and utilization within the nursing process (Parse, 1987).

Orem (1985) stated that individuals were responsible for their own health. She defined self-care as "the production of actions directed to self or to the environment in order to regulate one's functioning, and well-being" (1985, p.31). Other factors identified by Orem that influenced self-care included: age, health, patterns or response to internal and external stimuli, values and goals. She concluded that self-care actions should produce the following results:

1. Support life processes, promote normal functioning.

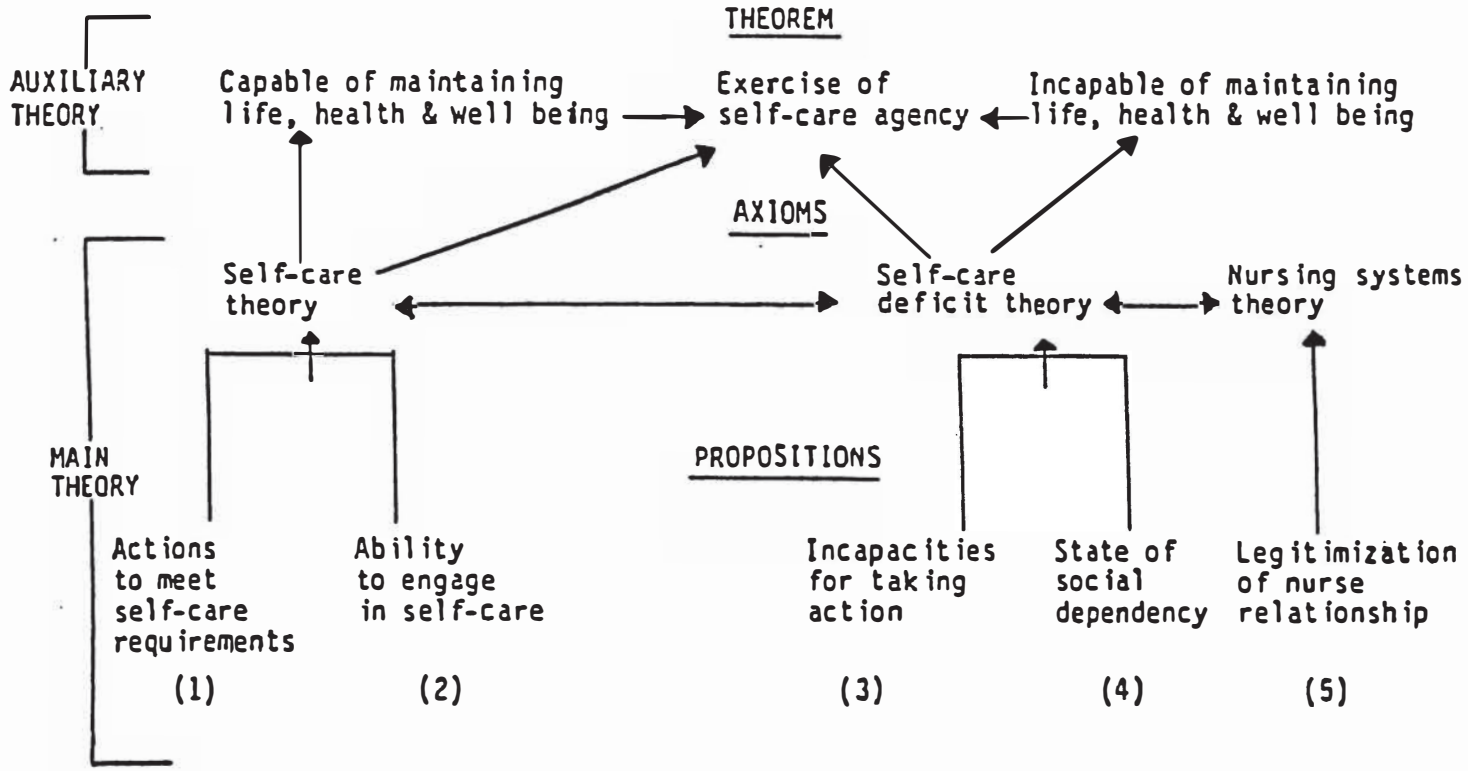

Figure I. Orem's General Theory of Nursing:
Demonstration of Main and Auxiliary Theories

Orem (1971) Nursing Concepts of Practice

2. Maintain normal growth, development and maturation.
3. Prevent, control, or cure disease processes and injury.
4. Prevent or compensate for disability. (Orem, 1971, p.20)

Actions of self-care were pragmatic in orientation. Self-care action was as routine as daily personal hygiene and proper food selection, or may result from awareness of a specific need or demand, as when a physician is sought after an abnormal growth is found on the body. When an individual was unable to meet self-care demands, self-care deficits resulted. Self-care deficits were the result of either incapability for taking action or a state of social dependence (Orem, 1971). Health care professionals were called upon for assistance as needed to help individuals maintain, restore, or increase their ability to provide their own self-care. Individuals with HIV disease had self-care deficits resulting in physiological and psychosocial problems. The focus of this study was the psychosocial effects of the disease process which ultimately ended in death.

Kubler-Ross (1969) defined stages of dying which provided health care workers with a means to understand how individuals deal with a fatal illness of any kind. HIV was a potentially fatal disease and individuals who were HIV

seropositive progressed through five stages of dying (Kubler-Ross, 1987) (See Figure 2).

In stage one, denial and isolation functioned as a buffer allowing the individual to mobilize defenses to deal with the potentially fatal diagnosis (Kubler-Ross, 1969). Denial was the primary defense mechanism used to cope with many aspects of HIV disease (Dilley, Pies & Helquist, 1989).

Stage two, anger, allowed the individual to express feelings of rage, envy and resentment in answer to the question, why me? (Kubler-Ross, 1969). HIV infected individuals were often feeling guilty as a result of contracting the disease and frequently focused blame on themselves or others close to them (Lewis, 1988). In addition to those factors already mentioned, one must add the societal stigma of the illness and frequently the chosen lifestyle of the individual themselves. Society's negative reactions and the lack of perceived governmental support add to the feelings of anger and rage (Lewis, 1988). "People with AIDS were stigmatized by their association with death. Furthermore, in the case of homosexuals and intravenous drug users, people with AIDS would be labeled deviant and therefore stigmatized even if they were healthy" (Cline, 1989, p. 41). Unexpressed anger may also appear as

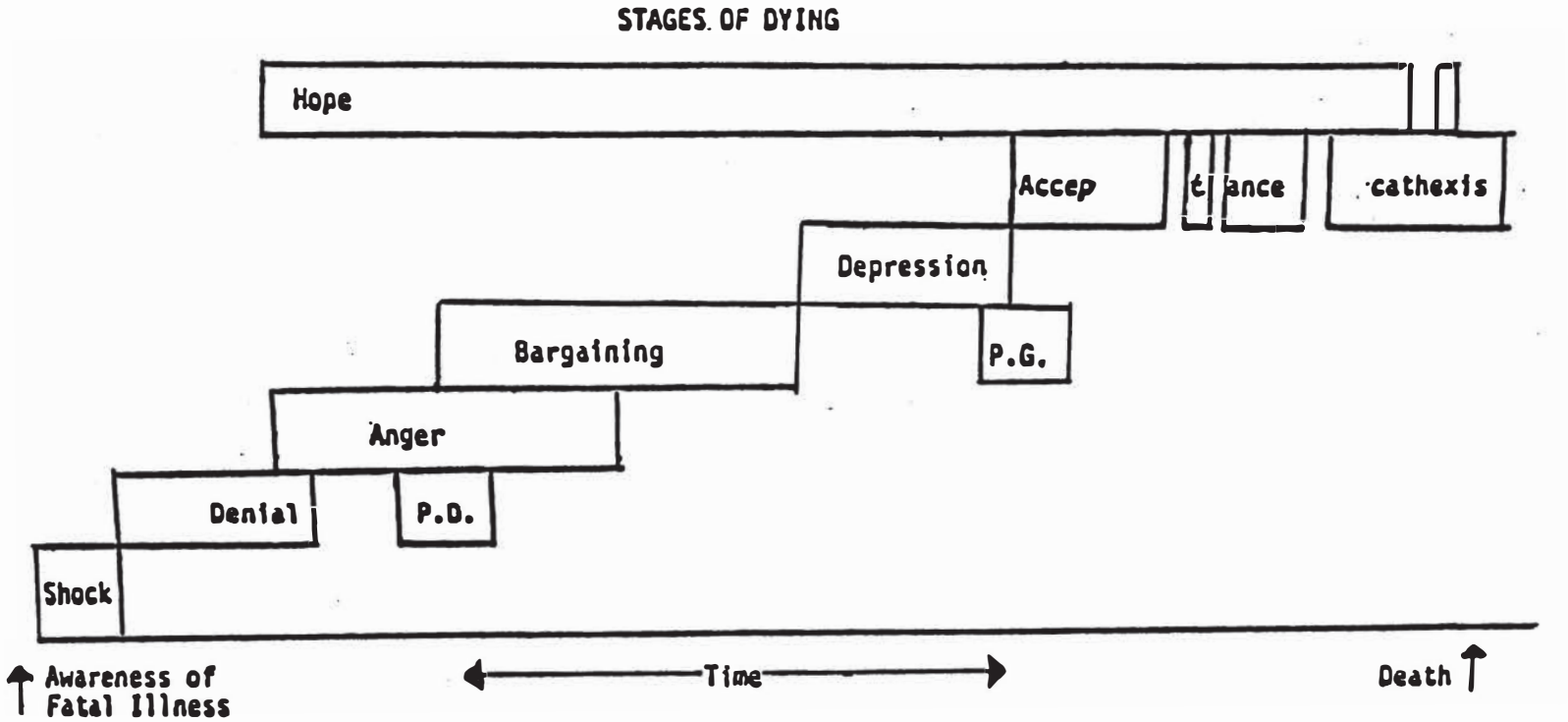

Figure 2. Kubler-Ross's Stages of Dying

Kubler-Ross (1969) On Death and Dying

depression or cause suicidal ideation or suicide attempts (Stuart & Sundeen, 1991).

In stage three, bargaining, the individual attempted to form agreements (usually with God) to postpone the inevitable (Kubler-Ross, 1969). The individual wondered whether "good behavior" will be rewarded with an opportunity for one more important occasion, or even a longer life (Kubler-Ross, 1969). In HIV disease an individual may bargain abstention from IV drug use, homosexual behavior, or infidelity (Kubler-Ross, 1987).

In stage four, depression, the individual can no longer deny the illness as financial, job, family, and other losses become overwhelming (Kubler-Ross, 1969). The individual becomes more aware of the physiological aspects of the disease and may require more assistance in meeting self-care demands. Depression was also the primary pathological state that may result in self-destruction (Wekstein, 1979).

In the fifth stage, acceptance, the individual had been able to work through the previous stages and was no longer angry or depressed, mourning the loss of life was complete and death was expected (Kubler-Ross, 1969). If an individual with HIV disease was given enough compassion, love, and support, it was possible for that person to reach the stage of acceptance (Kubler-Ross, 1987). Unfortunately,

many continued to be shunned by friends, families, and society and discriminated against to the end. These individuals had no one to share their pain and may die never reaching acceptance (Kubler-Ross, 1987).

Individuals may progress through these five stages of dying in different time frames, and may vascilate from one to another depending on their needs (Kubler-Ross, 1969). Feelings of hopelessness were superimposed throughout all five stages and may vary according to the individual as well (Kubler-Ross, 1969).

According to Kubler-Ross (1987) people with AIDS not only have to go through the stages of dying, but they are faced with other issues that the world has never had to deal with to such an extent. Many AIDS patients ended up feeling alone, rejected, and sick, often resorting to suicide (Kubler-Ross, 1987).

Kubler-Ross (1969) found a number of other factors which impact on how an individual deals with dying. These factors included: religious faith, the way the news of the diagnosis was given, educational background, social standing, and number of interpersonal relationships. Individuals who were given their diagnosis without hope often had the most difficulty dealing with hopelessness. Although absence or presence of religious faith did not cause a great deal of difference in Kubler-Ross's (1969)

findings, she noted difficulty in defining a "religious person." The more close personal relationships an individual had, the better they were able to deal with dying; however, those with many superficial relationships often had more difficulty. Individuals who had the support of others during their dying were often able to reach the stage of acceptance earlier than those who had no support. Those individuals with less education, less focus on material possessions, and less social ties tended to have somewhat less difficulty with acceptance (Kubler-Ross, 1969).

Assumptions

1. A goal of nursing is to stabilize, control, and minimize the effects of chronic poor health or disability (Orem, 1980).

2. Human beings have a limited lifespan (Kubler-Ross, 1969).

3. People diagnosed with a potentially fatal disease (HIV disease) progress through five stages of dying (denial, anger, bargaining, depression, acceptance) at varying times and varying degrees (Kubler-Ross, 1969).

4. People diagnosed with a potentially fatal disease (HIV disease) may resort to suicide (Kubler-Ross, 1987).

Research Questions

This study will attempt to determine if there is a relationship between HIV classification, depression, and suicidal intent by answering the following research questions:

1. What is the relationship between HIV classification and depression and suicidal intent?

2. What is the relationship of age, religion, ethnicity, relationship status, socioeconomic level, and number of losses to depression and suicidal intent?

Definition of Terms

For the purposes of this study the following terms are defined:

AIDS: Individuals who are HIV+ and who meet the criteria established by the Centers for Disease Control (CDC) of diagnosis of Pneumocystis Carinii Pneumonia (PCP), Kaposi's Sarcoma (KS), or other serious opportunistic infections (CDC, 1989). In this study, AIDS was operationalized to be individuals who attend an AIDS support group and who indicated on the demographic data sheet (DDS) that they have been told by their physician that they have AIDS.

ARC: Individuals who are HIV+ and who have at least two symptoms of immunodeficiency identified as indicators of ARC by the CDC and who do not meet the criteria developed by the

CDC for AIDS (Wolcott, Fawzy, & Pasnau, 1985). In this study, ARC included those individuals who attended an AIDS support group and who indicated on the DDS that they have been told by their physician that they have ARC.

Depression: A clinical syndrome manifested by at least four of the following symptoms that have been present every day for at least two weeks:

1. poor appetite or significant weight loss (when not dieting) or increased appetite and significant weight gain.
2. insomnia or hypersomnia
3. psychomotor agitation or retardation
4. anhedonia
5. loss of energy; fatigue
6. complaints or evidence of diminished ability to think or concentrate.
7. recurrent thoughts of death, suicidal ideation, wishes to be dead, or suicide attempt. (DSM III-R, 1989).

For the purposes of this study, depression was a total score as measured by the Beck Depression Inventory (BDI). Possible scores were:

00-09 Normal Range

10-15 Mild Depression

16-19 Mild-Moderate Depression

20-29 Moderate-Severe Depression

30-63 Severe Depression

HIV classification: HIV classification is one of the following categories: human immunodeficiency virus seropositive (HIV+), AIDS related complex (ARC), acquired immunodeficiency syndrome (AIDS).

HIV+: Positive serological response for antibodies against the human immunodeficiency virus (Centers for Disease Control, 1986). In this study, those individuals who attend an AIDS support group and who indicate on the Demographic Data Sheet (DDS) that they have tested HIV+ will be considered HIV+.

Suicidal Intent: the purposeful plan to take one's own life which may be determined in part from self-report (Wekstein, 1979). For the purposes of this study suicidal intent will be a total score as measured by the Hopelessness Scale (HS) as follows:

00-03 None or Minimal

04-08 Mild

09-14 Moderate

15+ Severe

Limitations

The limitations imposed by conducting a descriptive study include the inability to determine a causal

relationship between the variables due to lack of manipulation, randomization, and control (Polit & Hungler, 1987). Due to a small sample size and collection of data at one location, the generalization of results will be limited to the sample (Polit & Hungler, 1987).

Summary

This descriptive study will be focused on the relationship between HIV classification, depression and suicidal intent. The Beck Depression Inventory will be used to assess depression, and the Hopelessness Scale will be utilized to assess suicidal intent. As the numbers of individuals with HIV disease increase so does the need for knowledgeable nurses to care for persons with HIV disease. Nurses are in a position to assess persons with HIV disease and institute care that focuses on both physical and psychosocial problems, the latter of which are frequently overlooked by the medical profession.

CHAPTER II

REVIEW OF THE LITERATURE

The purpose of this study was to examine the relationship of HIV disease classification to depression and suicidal intent. The identification of AIDS by the CDC in 1981 was followed by a flurry of research and publications. Unfortunately for a number of years research on the psychological and social aspects of the disease was absent, and there are still few empirical studies available. HIV disease is now known to cause a multitude of psychosocial problems including depression and suicide (Lewis, 1988).

Psychosocial Issues

In 1983, Holtz, Dobro, Palinkas, Radendra, and Oleske commented on the lack of attention to the psychosocial impact of AIDS in a letter to the editor of Journal of the American Medical Association. They noted that individuals with HIV disease lost their support systems and financial resources. This loss produced a plethora of problems for persons with HIV disease. This first section of the review covers stressors associated with HIV disease and resulting psychological responses.

Stressors

Franklin (1988) selected 49 male subjects with early stage HIV infection and divided them into two groups, symptomatic (n=29) and nonsymptomatic (n=20). He then divided each of these two groups by time since diagnosis into two more groups; HIV+ asymptomatic < 1 month (n=13), HIV+ asymptomatic > 4 months (n=16), HIV+ symptomatic < 1 month (n=6), and HIV+ symptomatic > 4 months (n=14). Utilizing the Minnesota Multiphasic Personality Inventory (MMPI) Franklin determined that individuals with early HIV infection worried obsessively about their physical appearance and health and about their past behaviors that may have contributed to their diagnosis. Those subjects with symptoms > 4 months showed significantly more distress than those that were symptomatic for < 1 month as measured by increased mean elevations on MMPI scales 1, 2, 3, and 6. He also found that 57% of the symptomatic group had significant psychological distress as measured by increased mean elevations on MMPI scales 1 and 2, with symptomatic HIV patients scoring higher on depression, anxiety, and despair scales of the MMPI than subjects who were asymptomatic. Franklin also ascertained that the longer the subjects had known about their HIV+ status, the more psychological distress they experienced.

Longo, Spross and Locke (1990) studied thirty-four

subjects with acquired immune deficiency syndrome through use of semi-structured interviews consisting of open-ended and semi-structured questions. Like Franklin (1988), they discovered that in addition to being worried about their physical and/or psychological health (65%), subjects were also concerned about uncertainty for the future (82%), social unacceptability (24%), fatigue (44%) and weight loss (15%). Longo et al. (1990) found that although subjects denied feelings of depression, they tended to describe their experiences in terms more descriptive of a reactive depression ie. sad, despairing, and hopeless. Different from Franklin, Longo et al. were unable to draw any conclusions regarding time since diagnosis and psychological distress.

Like Franklin (1988) and Longo et al. (1990), Cohen and Weisman (1986) included both physical and psychosocial stressors in their study of 300 individuals with AIDS and ARC. These subjects were followed for the duration of their illness with an average time period of 10 months. Although no structured instruments were used and no statistics reported, the investigators determined, through personal interviews, that their subjects' primary stressors were severe physical illness, terminality, lack of impulse control, lack of adequate support systems, depression, organicity, and frequent lengthy hospitalizations.

Unfortunately, the authors did not specify how time since diagnosis, ARC, or AIDS affected their observations.

Volden (1989) studied 32 individuals with AIDS, 20 individuals who were HIV positive and 41 healthy gay men. He utilized the following instruments; demographic questionnaire, SCL-90-R, Sexual Orientation Openness Questionnaire, Sickness Impact Profile, Self-Esteem Index, and the Social Support Questionnaire. As in previously-cited studies (Franklin, 1988; Longo et al., 1990; Cohen & Weisman, 1986), significant intergroup differences were revealed on measures of somatization, ($F(2,90)=10.78$, $p<.001$, $n=32$) indicating concerns about physical well-being. Unlike previously cited authors, Volden found that significant intergroup differences were also revealed on measures of hostility, ($F(2,90)=6.77$, $p<.001$, $n=32$), phobic anxiety, ($F(2,90)=3.17$, $p<.05$, $n=32$), and self-esteem, ($F(2,90)=3.90$, $p<.05$, $n=32$). Volden also discovered group differences approaching statistical significance on the measure of anxiety, and on overall psychological distress. Volden was able to determine that the subjects with AIDS revealed significantly higher levels of somatization ($F(2,90)=10.78$, $p<.01$, $n=32$), hostility ($F(2,90)=6.77$, $p<.05$, $n=32$), and phobic anxiety ($F(2,90)=3.17$, $p<.05$, $n=32$) than did the comparison groups. Individuals with AIDS had significantly fewer problems with self-esteem ($F(2,90)=3.90$,

$p<.05$, $n=32$).

Volden (1989) hypothesized that individuals with AIDS may be reacting to the current thought that "AIDS is a bad disease, I am not a bad person" which would account for their reaction to the Self-Esteem Index. He also suggested that the social support available to these individuals may have helped boost their self-esteem.

In contrast to previous authors, Volden compared an HIV+ group to a group of healthy gay men. Interestingly, Volden discovered that the HIV+ group demonstrated less psychological distress than the comparison group on all eleven variables. Variables that Volden identified as mediating the psychological effects of HIV disease were social support, physical and non-physical impairment, openness regarding sexual orientation, and time since diagnosis. Two of these variables, non-physical impairment, and openness regarding sexual orientation were the most significant.

Korniewicz, O'Brian, and Larson (1990) divided 63 subjects into four groups: HIV risk group (n=34), HIV infected-asymptomatic (n=10), early stage AIDS (n=10), and late stage AIDS (n=19). Utilizing Sherwood's Self-Concept Inventory, Rosenberg's Self-Esteem Scale, Dean Alienation Scale, Inventory of Social Functioning, and a Demographic Data Form, the authors determined that there was no

significant difference for the dependent measures of self-concept, self-esteem, or social functioning. However, Korniewicz et al., did find a significant difference between groups in overall Dean Alienation Scores, with the asymptomatic and HIV risk groups scoring significantly higher (F=3.2, p=.03, n=63) on the alienation scale than the other two groups. In contrast to Volden (1989) who found that AIDS subjects reported more symptoms of hostility, somatization and phobic anxiety, these authors found that asymptomatic individuals experienced significantly greater feelings of powerlessness as compared with the other three groups (F=6.8;p=.01, n=63). Similar to previous studies on HIV infected individuals, the authors believed that the high alienation scores were reflective of an underlying depression.

Analogous to the previous authors, psychological stressors were discovered by Fawzy (1989) in a study of 50 subjects within three months of receiving an AIDS diagnosis who had no known predominant medical or neurological complications. Utilizing the Feelings About Your Health Symptom Checklist and data obtained from patients' medical records, Fawzy detected the most common symptoms reported by subjects were fatigue, myalgia and decreased libido with an average of 7 symptoms reported by each subject. He also discovered a moderate degree of health-related restrictions

in "any activities" and minimal health-related restrictions in "activities of daily living". Using the Profile of Mood States (POMS) questionnaire and the Simmons Scale of Self-Esteem, he discovered that 12 of 44 subjects (27%) had POMS-TMD scores higher than 100, indicating a high level of current emotional distress. Consistent with previous authors (Franklin, 1988; Volden, 1989; Longo et al. 1990) Fawzy discovered that subjects had a moderately high concern about fatigue and other physical symptoms as well as moderately high mean depression and fatigue subscale scores. Unlike Korneiwicz et. al. (1990) who discovered little difference in self-esteem, Fawzy found that 37% of subjects had high, 24% medium, and 39% low self-esteem scores. Fawzy concluded that as a group, patients recently diagnosed with AIDS appear to adapt to their illness with only moderate psychological distress. He hypothesized that one reason for this decreased psychological distress level was that the higher educational level of his subjects would facilitate their access to more resources.

It became apparent that HIV disease has numerous psychological as well as physical stressors. In summary, most authors noted concerns about the physical symptom of fatigue, and other physical changes occuring in subjects with HIV disease. Common psychological problems noted included depression, anxiety, alienation, and loneliness.

Coping with HIV disease

As one reviews the psychosocial stressors common to individuals experiencing HIV disease, it becomes evident that coping with the disease process is extremely difficult. The second section of this review deals with quality of life issues that may contribute to, impact on, or otherwise mediate the persons ability to survive with HIV disease, as well as thoughts of suicide that may occur when mediating factors fail.

Quality of life

Atkinson, Grant, Kennedy, Richman, Spector & McCutcham (1988) studied the prevalence of psychiatric disorders among men infected with human immunodeficiency virus. The authors studied 56 ambulatory homosexual men in four groups; men with AIDS (n=15), men with ARC (n=13), men asymptomatic or mildly symptomatic but seropositive (n=17) and HIV seronegative men (n=11). The authors also included an age and demographically-matched comparison group of healthy heterosexual controls (n=22).

Atkinson et al. used the Symptom Checklist 90-Revised (SCL-90-R) the Profile of Mood States (POMS) and a structured psychiatric interview following the DSM-III criteria by a single rater. The rater then met with the treatment team and reviewed the patient's chart counting

only those symptoms not attributed to a medical illness as positive.

The authors ascertained that homosexual men had lifetime rates of alcohol or non-opiate drug use (39.3%), generalized anxiety disorder (39.3%), and major depression (30.33%) that often preceded diagnosis with a medical illness or knowledge of HIV status. Patients in the more advanced clinical groups (ARC, AIDS) tended to experience major anxiety symptoms currently, or within the past six months, while alcohol abuse occurred more commonly among patients with ARC. The groups did not differ in terms of recent cases of major depression, with the possible exception that seropositive asymptomatic or mildly symptomatic subjects had a somewhat higher prevalence.

The results from the SCL-90-R and POMS generally reinforced the above findings. Subjects from the four homosexual groups tended to indicate greater distress on most dimensions of the SCL-90-R compared with heterosexual controls. Contradictory to Volden (1989) who found that AIDS subjects had the highest emotional distress, and Korneiwicz et al. (1990), Atkinson et al. discovered that subjects with ARC tended to record the highest scores of emotional distress, and these scores were often higher than those of controls and sometimes other homosexual groups. As in previous studies the POMS reflected fewer group

differences, although in two areas (tension-anxiety ($F(56,4)=5.2$, $p<.001$, $n=56$) and fatigue ($F(56,4)=3.8$, $p<.01$, $n=56$), the patients with ARC scored significantly worse than controls. Most men (64.7%) in the AIDS/high risk group met the criteria for recurrent major depression. The first episode of major depression preceded the AIDS epidemic in the majority (64.7%) of all patients experiencing major depression. Other patients evidenced chronic depressive symptoms.

Ragsdale and Morrow (1990) studied 95 subjects divided into three categories HIV positive (25%), ARC (16%), and AIDS (59%). Most (83%) had contracted AIDS through sexual contact with an infected male. Ninety percent of the subjects were male, a majority (74%) were single, a few divorced (16%), and most (40%) were living with a significant other. The average number of months since diagnosis of HIV disease was 24.8.

The authors employed the Sickness Impact Profile (SIP), and the Symptom Distress Scale to study these subjects. Results of the SIP Dimensions indicated the following, physical dimension scores for HIV+, ARC and AIDS groups as 0.9, 14.6, and 10.3, respectively, while psychosocial dimension scores for the HIV+, ARC, and AIDS groups were 9.4, 34.7, and 23.3 respectively. Ragsdale and Morrow determined that individual aspects of quality of life differ

with the progression of AIDS and the psychosocial impact of HIV disease is worse than the physical impact for all groups. Like Atkinson (1988) the investigators ascertained that the scale effect were significant ($F(1,92)=60.7, p<.01$) indicating that individuals with ARC were most affected although this difference was not statistically significant when compared to the impact of HIV disease in subjects with AIDS. The authors hypothesized that the uncertainty experienced by individuals with ARC may cause an increase in anxiety, depression, anger, and somatization which may decrease temporarily when a diagnosis of AIDS is made. Ragsdale and Morrow (1990) suggested that the need for support and education in relation to changes in quality of life is especially important during the ARC stage.

Taking a different approach, Carson, Soeken, Shanty, and Terry (1990) looked at hope and spiritual well-being as mediators of problems with quality of life for persons with HIV disease. Utilizing the Beck Hopelessness Scale (HS) and the Spiritual Well-Being Scale, they studied 65 adult male patients recruited through an outpatient clinic that treated patients with HIV disease. The authors ascertained that a majority of subjects scored at the high level of hope (optimism) with only four subjects scoring in the area of extreme hopelessness. These findings are somewhat unusual since all of the previous studies indicated subjects

experienced problems with depression (whether caused by HIV disease or preceding HIV diagnosis) which would lead one to suspect that hopelessness would also be affected. Subjects who had a high score in spiritual well-being tended to score higher in hope as well. Although not indicated in the study, perhaps these subjects had other characteristics that mediated their depression.

Suicide

Kizer and Green (1988) reviewed all of the death certificates in 1985 for the State of California and reported that there were 3,782 suicide deaths among California residents and a record number of male suicides. This rate reflected was the highest number of self-inflicted deaths in California since 1977. California accounted for 13.2% of all suicides (28,620) in the United States since 1985. The greatest increase in the number of male suicide deaths was in men aged 65 and older. In young males the rates increased 7.6% and 46.2% in ages 15-19 and 5-14 years respectively, although the actual numbers were much smaller than for older men.

Concerned about the high suicide rates, Kizer, Green, Perkins, Doebbert, and Hughes (1988) decided to continue the previous investigation focusing on individuals with HIV disease. Once again, using the suicide statistics for the

state of California, the authors found that suicide ranked as the 8th leading cause of death. For males 10 years of age or older, the California general population suicide rate for 1986 was 27.18 per 100,000 person years, while for men aged 20-59 years, the age group most at risk for AIDS, the comparable rate was 27.12 per 100,000 person years. The authors reviewed death certificates and determined that there were 13 suicides in 1986 for which AIDS was identified as a significant condition contributing to death. Of the identified cases, 12 were white, one was Asian; 12 were between the ages of 20 and 59 years, with an average age of 38 years for all 13; and 11 of the 12 for whom information was available were unmarried. The methods of suicide included ingestion of drugs (8 cases), fall from height (2 cases), hanging (1 case), suffocation (1 case), and gunshot (1 case). The authors calculated that the relative risk of suicide for California men with AIDS was 17.02 times higher than that of men without AIDS.

Concerned about the above statistics, Marzuk, Tierney, Tardiff, Gross, Morgan, Hsu, and Mann (1988) reviewed death certificates of New York City residents diagnosed with AIDS in 1985. There were 668 suicides yielding a rate of 9.29 per 100,000 person years. In men aged 20-59 years without a known diagnosis of AIDS, the rate was 18.75 per 100,000 person years. There were 3828 individuals who lived with

the diagnosis of AIDS for all or some part of 1985. There were 12 suicides in men aged 20-59 from this group who lived 1763.25 person-years with a diagnosis of AIDS. This resulting suicide rate was 680.56 per 100,000 person-years. Thus, the relative risk of suicide in men with AIDS aged 20-59 years was 36.30 times that of the general population. AIDS, therefore, represented a significant risk factor for suicide just as it did for California residents. The authors were also concerned that their results may underrepresent the true AIDS-related suicide rate for a number of reasons. First, completed suicide victims may not have been tested for HIV, so it would be difficult to know if these suicides were AIDS-related. Second, suicides are frequently listed as other causes of death in order to ensure insurance payments. Third, chronic drug abusers with drug-related over-doses may not be tested for HIV. Fourth, the nature of AIDS as a terminal illness frequently leads investigators to accept a "natural cause" of death rather than spend the time and money to investigate suicide. The authors concluded that since AIDS is increasing, there is more of a risk for AIDS-related suicide. High rates of suicide in the diagnosed AIDS population may portend elevated rates of suicide in populations at risk for contracting AIDS such as intravenous drug users, gays, and others who are HIV+, as well as those indirectly affected

ie. family members. The authors also stressed caution in pushing for mass HIV testing unless counseling is readily available.

In addition to Kizer and Green (1988), Kizer et al. (1988), and Marzuk et al. (1988), Goldblum (1990) looked at suicide statistics among out-patients with HIV disease. Between October 1984 and April of 1986 the Hospice of San Francisco documented 13 suicide attempts and 6 completed suicides. In a six week time period the Shanti Project identified 11 persons with serious suicidal ideation, 7 suicide attempts, and one completed suicide. The Tenderloin Outpatient Clinic reported 8 AIDS patients and 14 ARC patients in its caseload. Of the 8, AIDS patients 38% had attempted suicide. Four of the ARC patients had attempted suicide at least once, and one person had attempted four times. Goldblum decided to look at each of these cases in more depth in an attempt to identify several HIV crisis points when a patient may be at high risk of suicide. Although no statistics were reported, Goldblum determined that the following crisis points existed:

1. Receiving a positive antibody test
2. Onset of symptoms of any kind
3. Appearance of opportunistic infections
4. During the final stages of AIDS when dependency pain, and control of bodily functions are an issue

5. Individuals in the "grey zone" due to their health and uncertainty about the future
6. A person who already had a number of losses
7. A homosexual who experienced a lot of discrimination, insult, or injury due to homophobia
8. A homosexual who believes "the world is a dangerous place to be gay"
9. A person who is "in the closet" with very little support
10. An adolescent who is still unsure of his sexual identity and who may not have access to services

Gaskins (1990) studied the psychosocial responses among persons with HIV infection using a qualitative approach. Ten subjects were interviewed and audiotaped as they described personal feelings and experiences about their disease. Gaskins used grounded theory methodologies to analyze the data obtained. She discovered two stages of response to HIV disease. Stage one was in response to the diagnosis and included making decisions about who to tell about their diagnoses, whether or not to needed change their lifestyles and whether or not to commit suicide. In agreement with Goldblum (1990), Gaskins identified HIV diagnosis as a "crisis point" where certain decisions were made including deciding about suicide as an option. Stage

two occurred in response to continuing to live with HIV disease and decisions about how to fight and survive with the disease.

Schneider (1989) studied suicidal ideation in 778 gay and bi-sexual men as predicted by AIDS-related life stressors, social support, and pre-existing chronic depression. He utilized a neuropsychological assessment, the Center for Epidemiological Studies-Depression (CES-D), the Hopelessness Scale, the Profile of Mood States (POMS), an AIDS-Related Recent Loss and Illness Events Questionnaire, revised UCLA Loneliness Scale, Perceived Risk of AIDS, Self-Report Scale of Suicide Intent (SRSSI) and the Confidant Question.

There were 212 subjects (27%) who reported suicidal thoughts over the last six months. Eleven percent of the variance in suicidal thoughts was caused by AIDS-Related Life Events ($X(151,1)=6.99$, $p<.01$, $n=212$) and Confidant Support which was not significant. Loneliness accounted for 15% of the variance in suicidal thoughts. In contrast to Goldblum (1990) and Gaskins (1990) Schneider discovered that low suicidal intent was associated with receipt of a positive antibody test within the last six months. High intent suicidal subjects tended to have more close friends with AIDS, a partner with AIDS or ARC, or were diagnosed with ARC themselves. These losses related to Goldblum's

identification of number of personal losses (#6) as a crisis point for considering suicide.

Schneider, Taylor, Hammen, Kemeny, and Dudley (1991) looked at factors influencing suicidal intent in gay and bisexual suicide ideators. They studied 778 subjects who were divided into two groups: suicidal (n=212) and nonsuicidal (n=483). Subjects were classified as suicidal if they both (a) unambiguously indicated some form of suicidal thoughts and (b) completed the suicide intent rating scale (as only those with suicidal thoughts and/or those who had made a suicide attempt were instructed to do). Nonsuicidal subjects were those who (a) endorsed "I did not have any thoughts of suicide" and no other screening statement, and (b) did not complete the suicide intent measure.

The authors measured AIDS-related stressors (AIDS related events and biological AIDS risk), appraisal/mediating factors (perceived AIDS risk and loneliness as measured by the Loneliness Scale), resistance factors (current confidant support), predisposing factors (past confidant support and past depressive symptoms as measured by a self-report depression scale) and current psychological state (suicide intent as measured by the Suicide Intent Rating Scale and current distress as measured by the Hopelessness Scale and the Profile of Mood States

[POMS]). Both AIDS-related events (r=.26,p<.001) and perceived AIDS risk (r=.24,p<.05) were significant predictors of suicide intent. The authors determined that biological AIDS risk was not predictive of suicide intent. Past confidant support (r=.31,p<.05) and loneliness (r=.23,p<.05) are additional significant predictors of suicide intent. Korneiwicz et al. (1990) indicated that alienation was high among their subjects which might explain why loneliness was a factor in this study. It would be of interest to determine if loneliness was a direct or indirect result of alienation. Reaffirming Gaskins (1990), Goldblum (1990), Kizer and Green (1988), Kizer et al. (1988) and Marzuk et al. (1988), Schneider et al. found that a larger percentage of the variance in suicide intent was accounted for among those HIV+ (39%) compared with HIV- (26%) subjects although they were not significant.

Twenty-seven percent of the sample reported some form of suicidal ideation, and suicidal ideation was equally prevalent among HIV+ and HIV- men. Like Atkinson et al. (1989) who found that depression was prevalent among gay and bisexual men irregardless of HIV status, Schneider et al. indicated that a substantial level of suicidal ideation was discovered among gay and bisexual men regardless of HIV serostatus. Schneider et al. hypothesized that suicidal thoughts in reaction to AIDS-related events may have

constituted some form of cognitive coping and may have served to alleviate, rather than have grown out of, substantial distress.

Summary

Although previous studies suggest that HIV classification may impact on factors such as fatigue (Atkinson et al. (1988), alienation (Korneiwicz et al. (1990), and quality of life (Ragsdale & Morrow, 1990), there is little agreement upon which classification experiences the most difficulty. Whether depression precedes or follows HIV+ serostatus, or whether suicidal ideation precedes or follows HIV+ serostatus, it is evident that both depression and suicidal ideation are common among individuals with HIV disease. It is the aim of this study to further clarify the presence or absence of depression and suicidal intent as it relates to HIV classification.

CHAPTER III

PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

This study was designed to explore the relationship between classification of HIV disease, depression and suicidal intent. A nonexperimental design was used with a descriptive correlational approach. Polit and Hungler (1987) state that the aim of this type of study is to determine how one phenomenon relates to another and not to attempt to infer a cause-and-effect relationship. The characteristics of nonexperimental research include nonrandomization of the sample and lack of experimental manipulation of the independent variable (Polit & Hungler, 1987). No control group was included in this study, and there was no manipulation of the independent variable (HIV classification). A descriptive correlation design had the advantage of being an efficient method of collecting a large amount of data in a fairly short period of time (Polit & Hunger, 1987).

Setting

For this study, data were collected at The Bering Care Center in a large metropolitan city in Southeast Texas with a population of approximately 5 million. This community agency provided a multitude of services to individuals who

have HIV disease, their families and significant others, and information to the general community. The center had a population of over 200 individuals who had used their services during the past month. The agency was centrally located in a large downtown area in a one-story brick building with approximately 2800 square feet of space. The program administrator and foundation director offices were housed in a two-story brick building adjacent to the center. The Bering Community Care Center consisted of three small staff offices, a small reception area, a small kitchen, and large dining/recreation/client treatment area. There were two full-time employees and two part-time employees. The agency was church-affiliated and received funds through a private foundation as well as state and federal government funding. The agency provided services to financially indigent individuals with HIV disease. The agency contracted with a physical therapist who provided prescribed therapy and a psychologist who trained group facilitators for the center. The agency offered nutritional counseling, socialization with other HIV positive individuals, educational workshops, budget planning, and information on social security benefits. Mental health volunteers were available in the areas of chemical dependency, depression, and medical management. The center also offered group outings for individuals with HIV disease. Breakfast was

provided daily to an average of 25 individuals and lunch for approximately 45 people. During one month 1055 meals were provided to various clients. Every Wednesday evening the center had a support group meeting. The program began with a potluck supper followed by a short program by a guest speaker. Following the speaker the group was divided into 5 groups: beginners, women, family members, grief and caretaker-significant others. Each small group had a trained facilitator. After the small group meetings an optional communion service was available.

Population and Sample

The population available for this study was 230 individuals with HIV disease being serviced by the Bering Care Center. The total population of the agency changed frequently as new cases were identified or referred. A convenience sample of individuals diagnosed with HIV disease who attended the care center was selected for this study. Both males and females over the age of 18 were eligible for selection. Sampling continued until a total of 80 was reached. Prior to data collection the study was explained and questions answered. All individuals who expressed an interest in joining the study were given a packet of information by the center director which included a cover letter, demographic data sheet, and questionnaires.

Convenience sampling entailed the use of subjects who were readily available (Polit & Hungler, 1987). The sampling technique was also purposeful as defined by Polit and Hungler (1987) in that subjects derived from the sample described were believed to be representative of the population.

Protection of Human Subjects

This study followed the rules and regulations of the Texas Woman's University Human Subjects Review Committee. Since the study was limited to the use of a questionnaire in an adult sample, it was exempt from review by the committee. Completion and return of the questionnaires constituted voluntary consent to participate. Confidentiality of subjects was maintained, and no names or code numbers were used to identify subjects. However, packets were coded with numbers in order to keep each subject's data separate. Data were kept locked in a file cabinet in the investigator's office at all times and were destroyed upon the completion of this study. Participants were given the option to stop completing the questionnaire at any time without penalty, and opportunities to ask questions of the group leader and/or researcher was provided. Subjects were provided a cover letter describing all relevant information prior to participating in the study (Appendix A). The cover letter

was attached to the instruments providing information about the purpose of the study and procedures for completing the three instruments. A description of potential risks and benefits was provided in the packet as well.

Instrumentation

Three instruments were used in this study, a demographic data sheet (DDS), the Beck Depression Inventory (BDI) and the Hopelessness Scale (HS). The demographic data sheet (DDS) consisted of 18 items which included the following: age, religion, ethnicity, sex, living arrangements, education, sexual orientation, time of HIV diagnosis, how HIV illness was contracted, if there was a further diagnosis of ARC or AIDS, whether thoughts of suicide occurred and when they occurred (Appendix B). Age, gender, marital status, ethnicity, living arrangements, education, socioeconomic status, and number of recent losses may all affect depression and suicidal intent (Beck, Weissman, Lester, & Trexler, 1976). Religious faith, educational background, social standing, and number of interpersonal relationships can all impact on the stages of dying (e.g., depression) (Kubler-Ross, 1969). The length of time since diagnosis and how the disease was contracted were of interest since they are related to HIV classification and may impact depression and suicidal intent. Questions 14-17

were related to suicidal intent and the right to choose to commit suicide.

The Beck Depression Inventory (BDI) and Hopelessness Scale (HS) (Appendix C) were developed by Beck and have been used together (Cole, 1988; Dyer & Kreitman, 1984; Kovacs, Beck & Weissman, 1975; Wetzel, 1976a) and separately in attempts to determine which was most predictive of suicidal intent (Beck & Lester, 1976; Beck, Kovacs & Weissman, 1979; Cropley & Weckowicz, 1966; Dyer & Kreitman, 1984; Petrie & Chamberlain, 1983; Pichot & Lemperiere, 1964; Wetzel, 1976b). Approval from Beck was obtained to use the instruments (Appendix D). Reliability of the BDI was based on a sample of 528 psychiatric outpatients in Pennsylvania and had a split-half reliability of $r=0.93$, $p<.001$ which was determined to be highly significant (Beck & Beck, 1972). Beck and Beck (1972) also determined that each individual item significantly correlated with the total test score.

Concurrent validity of the BDI and clinical ratings has been supported with studies by Beck et. al. (1975) ($r=0.65$, $p<.001$, $n=384$); Metcalfe & Goldman (1965) ($r=0.61$, $p<.05$, $n=120$); Nussbaum and associates (1963) ($r=0.66$, $p<.01$, $n=46$); and Williams, Barlow & Agras (1973) ($r=0.67$, $p<.05$, $n=76$). It has also been significantly correlated with the Hamilton Rating Scale, another measure of depression by Schwab, Bialow, Brown & Holzer (1967)($r=0.75$, $p<.001$, $n=216$)

and Williams, Barlow & Agras (1973)(r=0.82, p<.05, n=76). Dyer and Kreitman (1984) correlated the BDI with parasuicide (r=.60 p<.001, n=126). Parasuicide can be defined as a non-fatal act in which an individual deliberately causes self-injury. This term has been suggested as a replacement for the phrase 'attempted suicide' (Evans & Farberow, 1988). Minkoff, Bergman, Beck, & Beck (1973) found the BDI to correlate with suicidal intent (r=.26, p<.05, n=68).

Factor analysis of the BDI by Pichot and Lemperiere (1964) yielded the following factors; hopelessness with variance explained of (.40) and suicidal wishes with variance explained of (.34). Cropley and Weckowicz (1966) extracted major loadings on hopelessness with an explained variance of (.53) and suicide with an explained variance of (.57) and Beck and Lester (1976) also isolated similar factors relating to hopelessness and suicide. Beck, Shuyler, & Herman (1974) also subjected data from 294 suicide attempters to factor analysis. Three factors were extracted and labeled: feelings about the future, loss of motivation, and future expectations.

Reliability (alpha= .93, p<.05) of the HS was assessed using 294 inpatients hospitalized following a suicide attempt (Beck, Weissman, Lester & Trexler, 1974). Face content validity of the HS was determined by clinicians using an eight point scale to assess severity of suicidal

intent (Beck et al., 1974).

Other correlations of the HS scores and clinical ratings by suicidologists of a group of (A) 23 outpatients in a general practice and (B) a group of 62 hospitalized patients following a suicide attempt yielded correlations of r=.74 (p<.001) and r=.62 (p<.001) respectively with interrater reliability of r=.86 (p<.001) (Beck et al.,1974). In a second study of 59 depressed patients, Stuart (1962) correlated the HS with the Stuart Future Test, a test to measure future orientation at r=.60 (p<.001, n=59) (Beck et al.,1974). At discharge these same patients were retested with the HS and Stuart Future Test with a change in correlation to r=.49 (p<.01, n=59) (Beck et al., 1974). Wetzel (1976b) found the HS to correlate with suicide intent (r=.60, p<.001, n=48) as did Dyer and Kreitman (1984) (r=.70, p<.001, n=126).

Studies indicated that the BDI correlated with depression and lower levels of suicidal intent (Beck & Beck, 1972; Beck, Kovacs & Weissman, 1979; Beck & Lester, 1976; Cropley & Weckowicz, 1966; Petrie & Chamberlain, 1983; Pichot & Lemperiere, 1964; Wetzel, 1976a). The HS is associated with more severe suicidal intent (Beck, Kovacs & Weissman, 1979; Kovacs, Beck & Weissman, 1975; Minkoff, Bergman & Beck & Beck, 1973; Petrie & Chamberlain, 1983; Wetzel, 1976a; Zung, 1965).

Beck et al. (1979) found that the HS and BDI together correlated with suicidal ideation (r=.47, p<.001, n=90), the BDI alone (r=.39, p<.001, n=90) and the HS alone (r=.32, p<.001, n=90). Correlation between hopelessness and suicidal intent while depression was controlled was determined to be significant (r=.47, p,<.001, n=384) (Beck et al.,1975), when depression was not controlled the correlation was r=.68, p<.001, n=87) (Kovacs et. al.,1975). Cole (1988) studied hopelessness, social desirability depression, and parasuicide among college students and found that hopelessness and depression correlated with each other (r=.60, p<.05, n=255) and depression correlated (r=.40, p<.05, n=255) with parasuicide but there was no significant correlation between hopelessness and parasuicide.

Wetzel (1976b) found that hopelessness predicted 81% of the changes in self-rated suicide risk among 154 suicide attempters, threateners, and non-psychiatric controls and depression accounted for 76%. When depression was ruled out, hopelessness (as measured by the HS) was still significantly associated with suicide intent in ideators (r=.41, p<.01, n=48). Wetzel (1976b) also discovered that the HS was correlated with suicidal intent of suicide attempters (r=.63, p<.001, n=48).

Pilot Study

Data for the pilot study were collected at a community agency in a Tri-County area in Southeast Texas in order to evaluate the feasibility of the research method and assess the reliability and validity of the instruments. The pilot study was completed following the approval of a research proposal. This agency provided a multitude of services to individuals who have HIV disease, their families and significant others, and information to the general community. The agency serviced a population of approximately 120 individuals in a tri-county area of approximately 260,000. Individuals received HIV testing, counseling, and long-term follow-up at the agency.

The agency was centrally located in the tri-county area in a one story building with approximately 1295 square feet of space. The building was shared by two other businesses. The HIV agency consisted of a waiting room and offices for the following individuals: secretary, director, and social worker. The director, social worker, and secretary were all paid employees. Across from these offices was a large room that was used for volunteer inservice training and group meetings. There was also a large storage room where the food bank items were stored, and where medical supplies (such as wheelchairs) were available. The agency offered three open group meetings per week to individuals with HIV

disease, and one group meeting per week for families and friends of individuals with HIV disease. Group meetings took place in the waiting room area that was supplied with comfortable couches and chairs, or in the group room, depending on the number of group members attending the meeting. The agency was non-profit and relied on federal and state grants as well as private donations.

As of June 1, 1991, there were 135 individuals with HIV disease in the tri-county area to serve as the population for this pilot study. The total population of the agency changed frequently as new cases were identified or referred.

A convenience sample of individuals diagnosed with HIV disease who attended one of three support groups at a tri-county AIDS network were selected for this pilot study. Both males and females over the age of 18 were eligible for selection. Sampling continued until a total of 20 was obtained.

The study was explained prior to data collection and questions were answered. All individuals who attended a support group meeting and who expressed interest in participating in the study were given a packet of information by the group leader which included a cover letter, demographic data sheet, BDI, and HS. Packets were filled out during the meeting, returned to the group leader, and collected.

Internal consistency reliability was established using the alpha coefficient. The alpha coefficient for the BDI was 0.84 which denotes a high degree of internal consistency reliability. No changes were made in the questionnaire format following the pilot study.

For the purposes of establishing construct validity, point biserial correlations were performed on the pilot study data. All items were found to have a point biserial correlation greater than 0.3.

Reliability for the HS was also established during a pilot study of the instrument. Internal consistency reliability was established using the alpha coefficient. The alpha coefficient for the HS was 0.74 which indicates a high degree of internal consistency. This questionnaire was also shown to be reliable in previous studies, therefore no items were changed on the questionnaire.

Construct validity for the HS was also established during the pilot study on 20 individuals with HIV disease. The three items with no variability had point biserials of zero. All other items had point biserials above 0.3. Since this instrument has, in previous studies, had good reliability, and since a small sample was used, the instrument was retained in its entirety.

Data Collection

Data for the main study were collected at The Bering Care Center in a large metropolitan area in Southeast Texas. Individuals received nutritional support, psychological support, and long-term follow-up at the agency. Permission was obtained from the program administrator prior to data collection. The program administrator was informed that a study was being conducted, what the purpose of the study was, how it would assist other persons with HIV disease, and that the names of clients who chose to participate would remain confidential. Packets were to be coded with numbers in order to keep each subject's data separate. The program administrator was given individual sealed packets containing the DDS, HS, BDI, a letter of introduction (Appendix D) and a stamped addressed envelope for each subject. The investigator met with the clientele the day before data collection began in order to introduce the study and to answer any questions or concerns they might have. The program administrator informed each client that the questionnaire would be available until the desired sample of 80 was reached and that they may complete the forms at their leisure. Agreement to fill out the forms was considered consent to participate. Time was provided for subjects to complete the packet during the day and return it to a drop-

off box in the reception area. Questions were answered by phone or in person from 1:30 to 3:30pm during data collection.

Data collection occurred until the desired sample size of 80 was reached. Upon completion of the research project, the findings were presented at a large group meeting.

Treatment of Data

Data were subjected to computer analysis using SPSS. The Demographic Data Sheet (DDS) was examined using descriptive measures as follows: Nominal level data (questions 1 (gender), 3 (religion), 4 (ethnicity), 5 (residence), 6 (sexual orientation), 11 (how HIV disease was contracted), 13 (thoughts of suicide), 14 (when thoughts of suicide were experienced), 15 (belief in the right to commit suicide) and 16 (when suicide is acceptable)) were examined using the descriptive measures of frequency, percent, and mode where applicable. Ordinal level data (question 12 diagnosis with ARC or AIDS) was examined using frequency and percent. Interval and ratio level data (questions 2 (age), 7 (education), 8 (income), 9 (number and types of losses), 10 (number of months since diagnosis with HIV) and 12B&C (number of months with ARC/AIDS) were examined using frequency, mean, and percent. Contingency tables were developed for each item on the DDS with relation to HIV

classification. Contingency tables reflect the frequencies of two variables which are cross-tabulated, (Polit and Hungler, 1987) ie. age of individuals that are HIV +, ARC, or AIDS.

Research Question #1, asked what is the relationship between HIV classification and depression and suicidal intent? This question was analyzed by obtaining total scores on the BDI (depression) and HS (suicidal intent) and comparing these scores separately with HIV classification information DDS item #12 (nominal level data, HIV+, ARC, AIDS diagnosis). Both the BDI and the HS yielded interval level data.

A One-Way Analysis of Variance was used to determine if there was a significant difference between the three groups (HIV+, ARC, AIDS) and depression and suicidal intent. The ANOVA test determines whether or not a significant portion of the variability between groups can be attributed to the independent variable (Polit & Hungler, 1983).

Research question #2, asked what is the relationship between age, ethnicity, religion, relationship status, socioeconomic level, number of losses, and depression and suicidal intent? Nominal level items (3, religion; 4, ethnicity; 5, relationship status) and interval-ratio level items on the DDS (2, age; 8, income; 9, number of losses) were analyzed using a multiple regression.

CHAPTER IV

ANALYSIS OF DATA

In this chapter, a description of the sample and results of the data analysis are provided. The sample is described in terms of gender, age, ethnicity, religion, educational background, income, relationship status, sexual preference, number of losses, and mode of transmission of HIV disease. The presentation of findings is organized according to the two research questions.

Description of Sample

In examining the relationship of depression and suicidal intent to HIV classification, 80 subjects with HIV disease were asked to participate in this study. All 80 subjects completed instruments and returned questionnaires.

The description of the demographic data includes the total group (n=80) and was subsequently divided into three groups. Subjects in group 1 were HIV+ only (n=19). Subjects in group 2 were classified as having ARC (n=26). Group 3 consisted of subjects who were classified as having AIDS (n=35).

Gender

The predominant gender of all three groups was male. For the total sample, 77 (96.3%) were male and 3 (3.7%) were female. Of group 1 (HIV+), 18 (95%) were male and 1 (5%) was female. Group 2 (ARC) consisted of 25 (96%) males and 1 (4%) female. In group 3 (AIDS) there were 34 (97%) males and 1 (3%) female.

The largest number of respondents ages varied from 30-39 years (36;44%) while the second largest age group varied from 20-29 (21;26%). The 30-39 age group was also the largest in groups 2 and 3 with the 20-29 age group being most prominent in group 1 (Table 1). The youngest subject was 22 and the oldest 67 with a range of 45. The mean age was 35.85 with both the median and mode equalling 33 with a standard deviation of 8.99.

Table 1

Ages of Group 1 (HIV+), Group 2 (ARC) and Group 3 (AIDS)

Age (Years)	HIV+		ARC		AIDS		Total	
	n	%	n	%	n	%	n	%
20-29	8	41	5	18	8	23	21	26
30-39	5	26	16	64	15	43	36	44
40-49	2	11	5	18	8	23	15	19
50-59	2	11	-	-	4	11	6	8
> 60	2	11	-	-	-	-	2	3
Total	19	100	26	100	35	100	80	100

Religion

The largest number of subjects in all three groups were either Catholic (25;31.3%) or Protestant (24;30%). There seemed to be some confusion with the term protestant as several subjects who chose the "other" category (27;33.7%) listed themselves as Baptist (6), Methodist (2), and Episcopal (2). Other subjects indicated their religious preference as Universal (2), New Thought (1), Full Gospel (1), Unity (2), Christian (1), and Non-Denominational (10). There were only 2 (2.5%) subjects representing the Jewish faith. Two missing values accounted for 2.5%.

Ethnicity

A majority of subjects were caucasian (61;76%). There were 9 (11.3%) black subjects, and 6 (7.5%) hispanic

subjects. Four subjects listed their ethnicity as other (5%). All three groups were dominated by caucasians; group 1 (12;72%), group 2 (20;80%) and group 3 (29;80%). All three groups had 2 hispanics while black subjects were also in the minority; group 1 (2;11%), group 2 (3;12%), and group 3 (4;11%). Interestingly, none of the subjects were Oriental.

Living Arrangements

A number of subjects lived alone (31;39%), although (22;27.5%) lived with a partner, and 25 (31%) lived with another person. Missing data accounted for the other 2 (2.5%). Over 30% of individuals in each group lived alone (Table 2).

Table 2

Living Arrangements of Group 1 (HIV+), Group 2 (ARC) and Group 3 (AIDS)

Living Arrangements	HIV+		ARC		AIDS		Total	
	n	%	n	%	n	%	n	%
Lives Alone	9	47	8	31	14	40	31	39
Lives With Partner	5	26	5	20	12	34	22	27
Lives With Another Person	4	21	12	45	9	26	25	31
No Response	1	6	1	4	0	0	2	3
Total	19	100	26	100	35	100	80	100

Education

Nine subjects (11%) did not complete high school with 4 (5%) only completing the eighth grade (Table 3). A majority of subjects, however, did complete high school (71;89%) and a large number (35;44%) had some college education with 12 (15%) completing four years of college. Nine subjects (11%) had completed more than four years of college with a maximum number of years completed equaling 20, the mean was 13.48 years, and the mode was 12 years of education.

Table 3

Education of Group 1 (HIV+), Group 2 (ARC) and Group 3 (AIDS)

Education	HIV+		ARC		AIDS		Total	
	n	%	n	%	n	%	n	%
< 12 years	3	16	4	15	2	6	9	11
12 years	6	32	7	27	14	40	27	34
> 12 years	10	52	15	58	19	54	44	55
Total	19	100	26	100	35	100	80	100

Socioeconomic Status

A number of subjects had no income at all (18;23%), with 30 (37%) reporting an income below $5000 per year. A number of subjects (21;26%) reported an income between

$5000-$10,000. Eight subjects (10%) reported an income between $10,000 and $20,000 with 3 (4%) reporting an income greater than $20,000. Two subjects (3%) reported incomes greater than $50,000 and one subject (1%) reported an income of $999,999.

The variations in income levels seemed to be consistent for all three groups (Table 4). A majority of subjects in all three groups fell in the less than $5,000 category.

Table 4

Income of Group 1 (HIV+), Group 2 (ARC) and Group 3 (AIDS)

Income	HIV+		ARC		AIDS		Total	
	n	%	n	%	n	%	n	%
No Income	6	32	6	23	6	17	18	23
< $5000	6	32	10	38	14	40	30	37
$5000-$10,000	5	26	6	23	10	29	21	26
$10,000-$20,000	2	10	2	8	4	11	8	10
$50,000-$100,000	0	0	1	4	1	3	2	3
> $100,000	0	0	1	4	0	0	1	1
Total	19	100	26	100	35	100	80	100

Sexual Orientation

A majority of the subjects were homosexual (57;71.3%). There were 14 (17.5%) heterosexual subjects and 9 bisexuals (11.2%). A majority of all three groups were homosexual; group 1 (11;58%), group 2 (19;73%) and group 3 (27;77%). The heterosexuals were fairly evenly distributed among all

three groups; group 1 (4;21%), group 2 (5;19%) and group 3 (5;14%). There were few bisexuals in each of the three groups; group 1 (4;21%), group 2 (2;8%), and group 3 (3;9%).

How HIV Disease was Contracted

In a majority of subjects(59;74%) HIV disease was transmitted through sex with men, and in the second largest group (22;28%) HIV disease was transmitted through intravenous drug use. A minority of subjects identified sex with a female (2;3%), blood transfusion (4;5%), sex related but not sure (9;11%), or some other way (2;3%) as the way they were infected with HIV. Since there were only 80 subjects and the total of these data equals 98, it was apparent that some subjects chose more than one category. These statistics were generally representative of all three groups as well (Table 5).

Table 5

Route of HIV Infection in Group 1 (HIV+), Group 2 (ARC), Group 3 (AIDS)

How Infected	HIV+		ARC		AIDS		Total	
	n	%	n	%	n	%	n	%
IV Drug Use	6	22	7	25	9	21	22	28
Sex with Male	15	55	18	66	26	60	59	74
Sex with Female	0	0	1	3	1	2	2	3
Sex but not Sure	4	15	1	3	4	10	9	11
Blood Transfusion	1	4	1	3	2	5	4	5
Other	1	4	0	0	1	2	2	3
Total	27	100	28	100	43	100	98	124

Time Since HIV Diagnosis

There was a wide variation in the time since subjects were diagnosed with HIV disease. One subject was diagnosed only one month prior to the study, while another had been diagnosed for 160 months (13 years, 4 months). The mean number of months since diagnosis was 48 (4 years) as was the median. The mode was 60 months or 5 years. The most common time-frame during which subjects had been HIV positive was between 49-60 months (4-5 years) (Table 6).

Time Since ARC Diagnosis

Twenty-six (33%) subjects were diagnosed with ARC. The most frequent response of subjects had been diagnosed with

ARC for less than one year (Table 6). The mean number of months since diagnosis with ARC was 33.31, with a median of 21 months.

Time Since AIDS Diagnosis

Thirty-five (44%) of subjects had been diagnosed with AIDS. The greatest number of subjects had received an AIDS diagnosis within the last 12 months (Table 6). The mean number of months since diagnosis with AIDS was 13.61, with a median of 18 months.

Table 6

Time Since Diagnosis Group 1 (HIV+), Group 2 (ARC), Group 3 (AIDS)

Time (Months)	HIV+		ARC		AIDS		Total	
	n	%	n	%	n	%	n	%
< 6 months	5	6	0	0	0	0	5	1
< 12 months	8	10	7	26	15	43	30	37
13-24 months	6	7	6	23	12	34	24	30
25-36 months	9	11	2	8	5	14	16	20
37-48 months	13	16	2	8	1	3	16	20
49-60 months	14	18	3	12	0	0	17	21
61-72 months	11	14	4	15	1	3	16	20
73-84 months	7	9	2	8	1	3	10	12
85-96 months	4	5	0	0	0	0	4	1
>96 months	3	4	0	0	0	0	3	1
Total	80	100	26	100	35	100	141	163

Number of Recent Losses

Subjects reported a variety of recent losses. Twenty-two (8%) had lost a spouse. Forty-one (14%) reported losing family members (Table 7). Only 13 (16%) subjects reported that they had lost no friends, while 38 (48%) had lost between 1 and 9 friends and 10 (13%) reported losing between 20-80 friends. Three individuals recounted that they had lost more than 200 friends. The mean number of friends lost by the group was 17.25 with a mode of 3.

Table 7

Number of Losses Group 1 (HIV+), Group 2 (ARC), Group 3 (AIDS)

Number of Losses	HIV+		ARC		AIDS		Total	
	n	%	n	%	n	%	n	%
Partner/Spouse	4	21	10	39	8	21	22	8
Family Members	10	53	15	58	16	46	41	14
Friends	16	85	23	88	28	80	67	23
Pets	17	89	22	85	28	80	67	23
Finances	9	47	17	65	21	60	47	17
Property	3	16	12	46	30	86	45	15
Total	59	311	99	381	131	373	289	100

A number of subjects reported other losses such as my job, my independence, my home, and "everything" (Appendix

G). Sadly, four subjects reported that they had lost their self-respect.

Thoughts of Suicide

A majority of subjects (70;88%) had thoughts of suicide sometime during their illness. Fifteen (21%) had considered committing suicide when first diagnosed with HIV disease. Another 5 (7%) had considered suicide when they first developed symptoms of HIV disease. Nine (13%) thought of suicide when they were diagnosed with ARC, while another 9 (13%) subjects considered suicide when they were hospitalized for the first time. Eleven (16%) considered suicide when they were diagnosed with AIDS (Table 8).

Table 8

Thoughts of Suicide in Three Groups
Group 1 (HIV+), Group 2 (ARC) and Group 3 (AIDS)

Thoughts of Suicide	Group 1		Group 2		Group 3		Total	
	n	%	n	%	n	%	n	%
HIV Diagnosis	4	21	4	15	7	20	15	21
First Symptoms	2	11	0	0	3	9	5	7
ARC Diagnosis	0	0	4	15	5	14	9	13
First Hospitalization	0	0	1	4	8	23	9	13
AIDS Diagnosis	0	0	0	0	11	31	11	16
Other Times	5	26	9	35	7	20	21	30
Total	11	58	18	69	41	117	70	100

Twenty-one of the subjects (26%) indicated that they had thoughts of suicide at times other than those listed in Table 8. Some subjects had thoughts of suicide on a daily basis while others contemplated suicide while waiting for disability benefits. One subject had discussed committing suicide with his physician and had already received the medication necessary to kill himself (Appendix E).

Right to Commit Suicide

A majority of subjects (55;69%) believed it is acceptable to commit suicide. Of these, 39 (49%) thought it was acceptable to commit suicide when one had a terminal illness and 43 (54%) thought it was acceptable when there was no hope of recovery (Table 9).

Table 9

Right to Commit Suicide

When Suicide is Acceptable	n	%
Terminal illness	39	49
Severely depressed	10	9
Physically dependent	10	9
Financially dependent	7	6
No hope of recovery	43	54
Other	7	6
Total	116	133

Other comments made by subjects were based on an individual's right to commit suicide if that was their choice. For specific comments see Appendix F.

Findings

The findings for each research question will be presented. Research question #1 addresses HIV classification (independent variable) and depression and suicidal intent (dependent variables). Research question #2 addresses age, item #2; religion, item #3; ethnicity, item #4; relationship status, item #5; socioeconomic level, item #8; number of losses, item #9 (independent variables) and depression and suicidal intent (dependent variables).

Research Question #1

Research question #1 investigates the relationship between HIV classification, and depression and suicidal intent. This question was analyzed by obtaining total scores on the Beck Depression Inventory (BDI) (depression) and Hopelessness Scale (HS) (suicidal intent) and comparing these scores separately with HIV classification information from the Demographic Data Sheet (DDS) (item #12, have you been diagnosed HIV+, ARC, AIDS). An ANOVA was used to compare the answers to item #12 (diagnosis with HIV+, ARC, AIDS) on the DDS with total scores on the BDI, and HS.

Range of Depression

A majority of subjects with HIV disease scored within the normal (5;26%) or mild (5;26%) range on measures of depression. Noteworthy is that 5 of 19 HIV+ subjects were moderately to severely depressed (5;36%), or severely depressed (1;6%). The subjects with ARC were primarily moderately to severely depressed (7;26%) or severely depressed (9;35%). The subjects with AIDS were moderately to severely depressed (14;40%) with the second largest group being severely depressed (9;26%) (Table 10).

Table 10

Depression According to HIV Classification

Depression	HIV		ARC		AIDS		Total	
	n	%	n	%	n	%	n	%
Normal	5	26	3	12	4	11	12	15
Mild	5	26	5	19	5	14	15	19
Mild-Moderate	3	16	2	8	3	9	8	10
Moderate-Severe	5	26	7	26	14	40	26	32
Severe	1	6	9	35	9	26	19	24
Total	19	100	26	100	35	100	80	100

The One-way ANOVA determines whether or not a significant portion of the variability between groups can be attributed to the independent variable (Polit & Hungler,

1983). Results of the ANOVA comparing item #12 (diagnosis with HIV+, ARC, AIDS) with total scores on the BDI indicated that there was a significant difference between the three groups. A Tukey's HSD Post-hoc test was done to determine which groups were significant (Table 11).

Table 11

Analysis of Variance for HIV Classification and Depression

Depression	SS	df	MS	F	p
Between Groups	997.3895	2	498.6948	3.6769	.03
Within Groups	10443.5824	78	135.6309		
Total	11440.9719	80			

Tukey HSD Post-hoc Procedure

	HIV+	ARC	AIDS
HIV+ (M=14.8421)	___	8.311*	8.2862*
ARC (M=23.1538)		___	0.0252
AIDS (M=23.1286)			___

*p=.01

The results of the Tukey's HSD Post-hoc test indicate that there was a significant difference between subjects with ARC (X=23.1538, n=26) and AIDS (X=23.1286, n=35), and subjects who were HIV+ (X=14.8421, n=19). This test indicated that subjects with ARC and AIDS were significantly more depressed than subjects who were HIV+.

Suicidal Intent

Over 50% of all three groups were considered to have moderate suicidal intent as evidenced by total scores on the HS between 9-14 (Table 12). Three individuals with AIDS (4%) were considered to have severe suicidal intent.

Table 12

Suicidal Intent According to HIV Classification

Suicidal Intent	HIV		ARC		AIDS		Total	
	n	%	n	%	n	%	n	%
None or Mild	0	0	0	0	0	0	0	0
Mild	8	42	12	46	13	37	33	41
Moderate	11	58	14	54	19	54	44	55
Severe	0	0	0	0	3	9	3	4
Total	19	100	26	100	35	100	80	100

An ANOVA was done to determine if there were any differences in group means (HIV+, ARC, and AIDS) and total scores on the HS (Table 13). A Tukey's HSD Post-hoc test was done to determine which groups were significantly different. The results of the Tukey's HSD Post-hoc test indicated that there was a significant difference between subjects who had ARC ($\underline{X}$=9.6923, $\underline{n}$=26) and subjects who had AIDS ($\underline{X}$=8.8571, n=35), and subjects who were HIV+ ($\underline{X}$=13.2105, $\underline{n}$=19). This test indicated that subjects who

are HIV+ had significantly more suicidal intent than subjects who had ARC or AIDS.

Table 13

Analysis of Variance for HIV Classification and Suicidal Intent

Suicidal Intent	SS	df	MS	F	p
Between Groups	241.9054	2	120.9527	3.7209	0.0287
Within Groups	2502.9821	78	32.5063		
Total	2744.8875	80			

Tukey HSD Post-hoc Procedure

	HIV+	ARC	AIDS
HIV+ (M=13.2105)	___	3.52*	4.35*
ARC (M=9.6923)		___	0.8352
AIDS (M=8.8571)			___

* p<.05

Research Question #2

Research question #2 investigated the relationship between age, item #2; religion, item #3; ethnicity, item #4; relationship status, item #5; socioeconomic level, item #8; number of losses, item #9 and depression and suicidal intent. This question was analyzed using a hierarchial multiple regression. According to Wilson (1989) multiple

regression analysis allows comparison of more than one independent (predictor) variable with one dependent (outcome) variable.

A multiple regression was used to determine if the following variables were predictors of suicidal intent (Table 14) and depression (Table 16): age (item #2), religion (item #3), ethnicity (item #4), relationship status (item #5), socioeconomic level (item #8), and number of losses (item #9).

Table 14

Standardized Regression Coefficients For Selected Demographic Variables and Suicidal Intent

Predictor Variable Suicidal Intent	Beta (SE)	t-Value	p-Value	r^2	Adj.r^2
Socioeconomic Level	-.010188	-.084	.9337	.40743	.09745
Age	-.037213	-.324	.7466	.40552	.11988
Relationship Status	-.097769	-.699	.4871	.39526	.12292
Religion	.225216	1.738	.0864	.35789	.12809
Ethnicity	.346538	2.958	.0042*	.30247	.14369
Number of Losses	.209405	1.750	.0844	.29549	.13386

R^2 =.17; F=2.05, p=.06 Adjusted R^2 =.08501

The beta weights shown in Table 14 indicated that ethnicity has a significant association with suicidal intent. However, it is important to note that even though ethnicity was significant, all of the variables together only accounted for 17% of the variance in suicidal intent.

Because ethnicity was significant, an ANOVA was done to determine if there was a difference between the four ethnic groups (Table 15).

Table 15

Analysis of Variance For Ethnicity and Suicidal Intent

Suicidal Intent	SS	df	MS	F	p
Ethnicity					
Between Groups	262.7363	3	87.5788	2.6815	.0527
Within Groups	2482.1512	77	32.6588		
Total	2744.8875	80			

Tukey HSD Post-hoc Procedure

	Caucasian	Black	Hispanic	Other
Caucasian (M=6.2202)	___	4.0565*	5.111*	9.2780*
Black (M=10.2787)		___	1.0543	4.1671*
Hispanic (M=11.333)			___	4.1671*
Other (M=15.500)				___

*p<.05

The Tukey's post-hoc test indicated that there was a significant difference between group 2 (Black) ($\underline{X}$=10.2787, $\underline{n}$=9) and group 3 (Hispanic) ($\underline{X}$=11.333, $\underline{n}$=6) when compared to group 1 (Caucasian) ($\underline{X}$=6.2202, $\underline{n}$=61). This test indicated

that the Black and Hispanic groups experienced significantly more suicidal intent than the Caucasian group. The Tukey's post-hoc test also indicated that there was a significant difference between all groups and ethnic group 4 (other) ($\underline{X}$=15.500, n=4) and all other groups with group 4 having significantly more suicidal intent. However, those individuals who indicated that they were from an "other" ethnic group consisted of one Italian, and three Cajun's which are both considered Caucasian. The beta weights shown in Table 16 indicated that the selected demographic variables were very weak predictors of depression.

Table 16

Standardized Regression Coefficients For Selected Demographic Variables and Depression

Predictor Variable Depression	Beta (SE)	t-Value	p-Value	r^2	Adj.r^2
Age	-.034229	-.283	.7780	.26828	-.00430
Relationship Status	.088745	.601	.5495	.25862	.01712
Ethnicity	-.116242	-.941	.3499	.24190	.02135
Socioeconomic Level	-.112542	-.875	.3843	.22484	.02589
Religion	-.192853	-1.412	.1623	.17819	.01934
Number of Losses	-.124135	-.984	.3285	.16614	.01539

$\underline{R}^2$=.073; $\underline{F}$=.810, $\underline{p}$=.58 Adjusted $\underline{R}^2$ = -.01712

Summary of Findings

Eighty subjects with HIV disease participated in this study. Subjects were divided into three groups HIV positive (n=19), ARC (n=26), and AIDS (n=35). Data were analyzed using descriptive and inferential statistics.

The predominant gender was male (77;96.3%) and the predominant age group (36;44%) was 30-39. A high percentage of subjects were either Catholic (25;31.3%) or Protestant (24;30%), a majority of subjects (65;81%) were Caucasian. Thirty-nine percent of the subjects lived alone (31). There was almost an equal number of subjects who either lived with a partner (22;27%) or lived with another person (25;31%). Thirty-four percent of subjects (27) had completed high school and a majority of subjects (44;55%) had completed four years of college or more. A number of individuals (18;23%) had no income while thirty (37%) reported an income of less than $5000 per year and seventeen (21%) reported an income between $5000-$8000. A large percentage of subjects were homosexual (57;71.3%) or bisexual (9;11.2%) while 17.5% (14) were heterosexual. A majority of subjects contracted HIV disease through sex with men (59;74%), while twenty-two (28%) reported intravenous drug use as mode of transmission. Fourteen (17%) had been HIV positive for between 4-5 years. A number of subjects, seven with ARC (26%) and fifteen with AIDS (43%), had received these diagnoses within the past

year. A majority of subjects had experienced a multitude of losses with 22% (8) losing a partner or spouse and 84% (67) losing friends. A majority of subjects (70;88%) reported having thoughts of suicide at some time since their diagnosis with HIV disease, and most (55;69%) believed that it is acceptable to commit suicide.

Research Question #1

The relationship between HIV classification, and depression and suicidal intent was analyzed using the ANOVA. The ANOVA indicated that there was a significant difference between the three groups and total scores on the HS. A Tukey's Post-hoc test indicated that subjects who were HIV+ experienced significantly more suicidal intent than subjects with ARC or AIDS. A significant difference between groups was also found with the total score on the BDI. A Tukey's Post-hoc Test indicated that subjects who were HIV+ were significantly less depressed than subjects with ARC or AIDS.

A majority of subjects with HIV (11;58%), ARC (14;54%), and AIDS (19;54%) had moderate suicidal intent. Three subjects with AIDS (9%) were considered to have severe suicidal intent. Five subjects with HIV (26%) were moderately to severely depressed and an equal number in this group were either mildly depressed (5;26%) or not depressed at all (5;26%). The largest group of AIDS subjects (14;40%)

were moderately to severely depressed while 35% (9) of ARC subjects were severely depressed.

Research Question #2

The relationship between demographic variables age (item #2), religion (item #3), ethnicity (item #4), relationship status (item #5), socioeconomic level (item #8) and number of losses (item #9) were analyzed with depression and suicidal intent using a multiple regression. A multiple regression was done to determine which variables accounted for the most variance when compared with depression and suicidal intent.

Beta weights indicated that ethnicity was a significant predictor of suicidal intent, although all of the selected variables only accounted for 17% of the variance in suicidal intent. Ethnicity was also found to be significant with an ANOVA so a Tukey's post-hoc test was performed. The Tukey's post-hoc test indicated that Black and Hispanic subjects had significantly more suicidal intent than Caucasian subjects. No demographic variables were found to be significant predictors of depression.

CHAPTER V

SUMMARY OF THE STUDY

The purpose of this study was to investigate psychosocial aspects of HIV disease, specifically depression and suicidal intent. Research question #1 examined the relationship between HIV classification and depression and suicidal intent. Research question #2 examined the predictive ability of age, ethnicity, religion, relationship status, socioeconomic level, number of losses and depression and suicidal intent.

Summary

A nonexperimental, descriptive correlational design was used to examine the relationship between HIV classification and depression and suicidal intent. Survey techniques were used to collect data to answer the research questions. Quantitative methods were used to analyze the survey data generated from a Demographic Data Sheet (DDS), the Beck Depression Inventory (BDI) and Hopelessness Scale (HS). Open-ended items on the DDS were summarized.

The sample consisted of 80 subjects with HIV disease who were subsequently divided into three groups. Subjects in group 1 were HIV+ only (n=19), subjects in group 2 were

classified as having ARC (n=26). Group 3 consisted of subjects who were classified as having AIDS (n=35). All 80 subjects completed the questionnaires.

Descriptive data were summarized by measures of central tendency and variability. Research question #1 asked what is the relationship between HIV classification and depression and suicidal intent? This question was analyzed using descriptive statistics, and the ANOVA. The majority of subjects were male (77;96.3%) homosexuals (57;71.3%) who had completed some college education (44;55%), and had an income of less than $8,000 annually. A majority (70;88%) reported having thoughts of suicide at some time since HIV diagnosis, and the majority (55;69%) believed that it was acceptable to commit suicide.

Research question #2 asked what is the relationship between age (item #2), religion (item #3), ethnicity (item #4), relationship status (item #5), socioeconomic level (item #8), number of losses (item #9) and depression and suicidal intent? This question was analyzed using multiple regression. Ethnicity was the only significant predictor of suicidal intent, and all of the selected variables together accounted for only 17% of the variance. An ANOVA and Tukey's post-hoc test were performed and showed that Black and Hispanic subjects had significantly more suicidal intent than Caucasian subjects. None of the selected variables

were significant predictors of depression.

Discussion of Findings

In this section, findings are discussed and related to the conceptual frameworks, literature review and other research. Both depression and suicidal intent varied as a function of HIV classification. Since this study is unique in examining the relationship between HIV classification, and depression and suicidal intent, no direct comparisons can be made.

This study's findings will be reviewed in light of the two conceptual frameworks utilized in this study, Orem's (1985) General Theory of Nursing and Kubler-Ross's (1969) Stages of Dying. Orem's (1985) theory was used as a foundation for understanding the impact of HIV disease on an individual's abilities to provide self-care, as a rationale for why nursing care was essential, and as an explanation for some of the psychological needs that individuals with HIV infection possessed. This study confirms that individuals with HIV disease often suffer psychosocial problems which result in self-care deficits. Individuals with HIV disease were concerned about their physical health as well as their financial and other support systems. It is evident that the individual with HIV disease is in need of nursing care in order to meet self-care demands.

Kubler-Ross (1969) defined stages of dying which provided health care workers with a means to understand how individuals deal with a fatal illness of any kind. This study indicated that a majority of individuals with HIV disease experience depression at some point in time which correlates with Kubler-Ross's (1969) stage four, depression. Kubler-Ross (1969) indicated that some of the factors affecting stage four were financial, job, family and other losses. Subjects in this study were asked to identify losses contributing to their depression and thoughts of suicide. Losses identified by subjects included; self-respect, independence, health, home, job, and everything (Appendix G). Kubler-Ross (1969) also found hope to be a mediating factor across all seven stages of dying. This study found that suicidal intent was evident at different times during the disease continuum which may indicate a fluctuation in hope as well.

Prior research studies have reported that depression occurs following HIV seropositivity (Franklin, 1988; Korniewicz, O'Brian & Larson, 1990; Atkinson, Grant, Kennedy, Richman, Spector & McCutchan, 1988), ARC (Cohen & Weisman, 1986) and AIDS (Cohen & Weisman, 1986; Atkinson et al., 1988; Fawzy, 1989). In this study depression was experienced by subjects at all levels though individuals with ARC and AIDS were more depressed than HIV+ individuals.

In previous studies Volden (1989) studied 32 individuals with AIDS, 20 individuals who were HIV positive, and 41 healthy gay men. He found that individuals who were HIV+ had less psychological distress than healthy gay men, although these findings were not significant. He also discovered that homosexuals who were not infected with HIV disease experienced significant psychological distress due to their lifestyle alone. Franklin (1988) studied 49 male subjects with early stage HIV infection, and divided them into two groups, asymptomatic (n=29) and symptomatic (n=20). He found that HIV+ subjects scored higher on measures of depression and concluded that they experience more psychological distress, as measured by increased mean elevations on MMPI scales 1 and 2, than subjects who were HIV- or who were HIV+ but asymptomatic. In this study individuals who were classified as HIV+ were also moderately to severely depressed (5;26%) but an equal number were either not depressed at all (5;26%) or mildly depressed (5;26%). However, HIV+ subjects experienced more suicidal intent than subjects with ARC or AIDS. The largest group of AIDS (14;40%) subjects were moderately to severely depressed or severely depressed (9;26) while (9;35%) of ARC subjects were severely depressed. Two subjects in this study indicated that they had been suffering from depressive disorders prior to their HIV diagnosis.

These findings that 66% (23) of subjects with AIDS were depressed are in agreement with Atkinson et al. (1988) who studied 56 ambulatory homosexual men with HIV disease and found that 65% of subjects with AIDS (n=15) were depressed. Atkinson et al. also discovered that individuals with HIV disease had an increased prevalence of major depression, i.e. 30% of gay men had a major depression prior to developing a positive HIV status, and that HIV+ subjects who were asymptomatic or mildly symptomatic had a higher prevalence of major depression. He also discovered that 64% of subjects with AIDS met the criteria for major depression according to the DSM III-R (1987).

Fawzy (1989) studied 50 subjects within three months of receiving a diagnosis of AIDS who had no known predominant medical or neurological complications. He discovered that individuals with AIDS had high mean depression subscale scores on the MMPI; but unlike previous investigators, he concluded that patients with AIDS appeared to adapt to their illness with only moderate psychological distress. In this study, it is evident that depression is present throughout all phases of HIV disease, and much worse for subjects with ARC and AIDS, many of whom experienced moderate to severe depression.

Ragsdale and Morrow (1990) found that quality of life differs with progression of HIV disease and that the

psychological impact of the disease was greater than the physical. Ragsdale and Morrow (1990) discovered that the psychological distress experienced by individuals with ARC was greater than that experienced by HIV+ and AIDS groups. In contrast, findings in this study indicate that depression and suicidal intent (quality of life indicators) are common in individuals who are HIV+ or have ARC and are also present in individuals with AIDS.

Carson, Soeken, Shanty, & Terry (1990) studied 65 adult males with HIV disease and concluded that a majority of subjects with AIDS (21;75%) were extremely hopeful, with only 4 (6%) experiencing extreme hopelessness, this study found that over 50% of individuals with ARC and AIDS were depressed and over 50% of all groups experienced mild to moderate suicidal intent. As with this study, previous studies on depression would suggest that the more depression individuals experienced the more hopeless they would be (Beck et al., 1975; Kovacs et al., 1975; Cole, 1988; Wetzel, 1976).

Previous studies suggest that persons with HIV disease experience a higher suicide rate than those individuals without HIV disease (Kizer & Green, 1988; Kizer, Green, Perkins, Doebbert & Hughes, 1988; Marzuk, Tierney, Tardiff, Gross, Morgan, Hsu & Mann, 1988; Schneider, 1989; Goldblum, 1990; Schneider, Taylor, Hammen, Kemeny & Dudley, 1991).

This study found that suicidal intent was present throughout the HIV disease process, although subjects who were HIV+ experienced significantly more suicidal intent than subjects with ARC or AIDS.

Schneider (1991) studied suicidal ideation in 778 gay and bisexual men as predicted by AIDS related life stressors, social support, and pre-existing chronic depression. He found that 27% of HIV+ subjects (n=212) experienced suicidal thoughts within the previous 6 months of the study. He also discovered that suicidal thoughts were more prevalent in individuals who had close friends with HIV disease, had a partner with ARC or AIDS, or had ARC themselves. Findings in this study were not limited to any time frame since HIV diagnosis; however, over 50% of all three groups experienced moderate suicidal intent while 5(9%) of individuals with AIDS were considered to have severe suicidal intent.

Goldblum (1990) hypothesized certain crisis points during HIV disease when an individual might have increased thoughts of suicide. These five crisis points were included in this study in an attempt to identify at what time during HIV disease progression subjects experienced thoughts of suicide. Subjects in this study expressed thoughts of suicide in all of the five time periods identified by Goldblum. The crisis points identified by Goldblum (1990),

(with percentages of subjects in this study who experienced thoughts of suicide) were:

1. Receipt of positive antibody test (21%)
2. Onset of first symptoms (7%)
3. When ARC diagnosed (13%)
4. When first hospitalized (13%)
5. When AIDS diagnosed (16%)

Goldblum (1990) also hypothesized that individuals with HIV disease might experience thoughts of suicide during the final stages of AIDS when dependency, pain, and control of bodily functions were an issue. However, this crisis point was not included in this study. It appears that those times suggested by Goldblum are times when individuals do consider suicide. However, a number of subjects (26% of the total number of subjects) considered suicide at other times. This study indicated that HIV infected subjects experienced significantly more suicidal intent than ARC and AIDS subjects. It is evident that both depression and suicidal intent are a frequent occurrence in individuals with HIV disease as evidenced by former studies and this study.

Conclusions and Implications

Based on the findings of this study, the following conclusions and implications were made:

1. Both depression and suicidal intent are indicative of

psychological distress in persons coping with HIV disease. These findings may be unique to HIV infection. The fact that depression increases and suicidal intent decreases as the disease progresses indicates a need for early assessment and intervention.

2. Although HIV+ persons have more severe levels of suicidal intent than persons with ARC or AIDS, they have less depression than persons with ARC or AIDS. It is quite possible that suicidal intent may reflect the emotional devastation accompanying diagnosis with HIV disease. It is vital that nurses intervene with HIV+ persons early in the disease process when thoughts of suicide may be highest. This early phase is a perfect time for nurses and other health care professionals to acknowledge that an individual may experience depression and/or consider suicide as an option. By providing an individual opportunities to experience feelings of depression and thoughts of suicide, the nurse invites further sharing by the patient in the future. When a nurse openly acknowledges that the patient may experience suicidal thoughts, if and when they do occur the patient is likely to seek out the nurse as a confidant. If nurses and other health care professionals wait until persons with HIV disease experience depression, the highest risk of suicide may have already passed, therefore it is vital to assess for suicide early in the disease process.

Nurses and other health care professionals who ignore depression and suicide at this time in HIV disease are surreptitiously informing the patient that they are not open to discussing serious psychological consequences of the disease.

3. Ethnicity is significantly associated with suicidal intent, although the association is minimal. Black and Hispanic subjects experience more suicidal intent than Caucasian subjects. Nurses need to be cognizant of the fact that minority groups have higher levels of suicidal intent than Caucasians.

4. As the people progress from ARC to AIDS, depression worsens. Several losses contribute to this progression including loss of income, partners, friends, pets, and property. A number of individuals with HIV disease end up applying for disability and living on incomes of less than $6000 per year. By the time individuals progress to AIDS, the majority can no longer work and have to rely on others for support. Often people who have been self-supporting all of their lives end up living on disability, relying on state-run clinics for health care, and often become homeless unless a family member or state agency has room and finances to assist them.

Nurses and health care providers need to consider assessment for depression and suicidal intent an ongoing

component of HIV care. Frequently, depression can be treated either through psychotherapy, or referral for appropriate medication evaluation. A number of drugs used for opportunistic infections can cause mental changes that may mimic a depression or psychosis, and AIDS dementia may cause mental changes indicative of depression and psychosis as well. Nurses need to evaluate medications on an ongoing basis to assess their impact on the individual's psychological status.

Nurses need to be open to assessing for suicidal intent, and a question regarding thoughts of suicide should be included on any assessment form used with individuals with HIV disease. Although suicidal intent can not be treated per se, treatment of the underlying depression plus an acknowledgement of suicidal ideation may give patients opportunities to share their thoughts and feelings. Psychiatrists and mental health nurse practitioners who are experienced in treating patients with HIV disease should be available. Perhaps short term hospitalization may be necessary in extreme cases.

Recommendations for Further Study

If nurses are to provide effective and high quality care to persons with HIV disease, research must be pursued with regard to psychosocial consequences of the disease

process. This study on depression and suicidal intent can be utilized as a basis for more specific studies on the psychosocial aspects of HIV disease. Some suggestions for future studies extending from this research follow. Studies should be designed which:

1. Explore interventions to alleviate depression and suicidal intent during the course of HIV disease. Since depression and suicidal intent are evident in HIV disease, nurses should assess for these early in the disease process. Nurses have already identified interventions that help to alleviate depression and suicidal intent. However, not all interventions may be applicable to individuals with HIV disease, or other interventions may be developed that have more impact. It is important to isolate those interventions that have the most positive impact on individuals with HIV disease.

2. Investigate areas of depression and suicidal intent occurring as a result of HIV disease and explore whether they are present prior to diagnosis with HIV disease. It is important to determine whether depression and suicidal intent are present prior to HIV diagnosis as gay men may experience depression and suicidal intent regardless of HIV status. Through further investigation nurses could assist in helping gay men cope with this transition by being available and open to discussion as well as providing

information and referral to openly gay organizations or professionals.

3. Explore whether the depression experienced during HIV disease is pathological or whether it is an attempt to cope with the disease itself. It is evident that persons with HIV disease experience depression. However, it is important for nurses to be aware that this depression may be an attempt to cope with HIV disease rather than a reaction to it. If depression is a form of coping, nursing interventions will differ. It is vital that individuals be allowed to maintain personal coping mechanisms until the nurse can assist in developing more healthy coping mechanisms.

4. Investigate the relationship between depression and physiological and psychological changes. Since depression is experienced by persons with HIV disease, it is important to know the cause of this depression. Nursing interventions will differ depending on the cause of depression. Since nurses often assess and intervene in depression attributed to either physical or psychological causes, or a combination of the two, individualization of care depends on accurate information.

5. Compare depression and suicidal intent among homosexuals and heterosexuals with HIV disease. Most of the research on HIV disease has focused on gay men. Unfortunately, the

numbers of heterosexuals with HIV disease are increasing. Both populations may react differently to HIV disease. Since nurses have been involved in caring for patients with HIV disease, it is important that care be individualized as much as possible. Therefore, it is necessary to investigate heterosexuals with HIV disease as a separate group and compare these with present findings.

6. Explore the relationship between quality of life and depression and suicidal intent as they relate to HIV disease classification. Nurses may be able to identify certain aspects of quality of life that are more important to individuals with HIV disease or that cause fluctuations in depression of suicidal intent. If specific factors could be isolated, more effective and individualized care could be provided to this population.

7. Explore how minorities cope with the diagnosis of HIV+ and determine what factors mediate depression and thoughts of suicide. It is important to isolate these groups to determine if specific nursing interventions might be individualized for minority groups to lessen the impact of HIV disease.

8. Operationally define suicidal intent including thoughts of suicide and belief in suicide in an attempt to further explore the concept.

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APPENDICES

Appendix A

Cover Letter

LETTER TO SUBJECTS

(Date)

Dear Participant:

You are being asked to participate in a study that I am conducting as a PhD student in nursing at Texas Woman's University in Houston, Texas. This is a study designed to explore depression and thoughts of suicide in persons with HIV disease. This is necessary so that volunteers, families and health care workers will know how to give the best possible care to persons with HIV disease.

If you agree to participate, you will be asked to complete three short questionnaires that should take about 15-20 minutes of your time. You may then return them to me in the enclosed packet.

Answering the questions may cause you to have some anxiety or concerns. I will remain outside the meeting room to answer any questions or to discuss any concerns you may have. You are also free to discuss your questions with me by calling me at 409-880-8821 Mon.-Fri. 8:00-4:30.

The indirect benefit of completing the study is that information from this study will be used to identify when individuals with HIV disease become depressed or think about suicide. This information can then be used by health care workers to provide better care and support to others with HIV disease.

I am conducting no similar study at this time in which you could participate. You are free to participate or not to participate. The choice is yours. If you choose to join the study, you may withdraw from the study at any time without penalty. Your care will not be affected in any way if you do or do not participate. There will be no penalty or loss of benefits.

Confidentiality will be assured. Only a number will be placed on each form. This is necessary to keep your data separate. No names will appear on any data forms. Neither you nor the support group or agency will be identified anywhere in this research study. All data forms will be destroyed following data analysis. Findings from this study will be published only in scientific and medical journals, and presented at professional meetings.

No injury is anticipated as a result of your participation in this study. However, Texas Woman's University is not able to offer financial compensation nor absorb the costs of medical treatment. First aid care will be provided if necessary.

RETURN OF THESE QUESTIONNAIRES WILL IMPLY YOUR CONSENT TO PARTICIPATE IN THE STUDY.

I want to thank you for your participation and your time.

Sincerely,

B. Gayle Twiname, RN, MSN, MEd

Appendix B

Demographic Data Sheet

DEMOGRAPHIC INFORMATION

INSTRUCTIONS; Please circle the answer(s) that best apply to you.

1. Gender

   A. female B. male

2. Age (in years) _____

3. Religion

   A. Catholic
   B. Jewish
   C. Protestant
   D. Other: Please specify _____

4. Ethnicity

   A. Black
   B. Caucasian
   C. Hispanic
   D. Oriental
   E. Other _____

5. Residence

   A. Live alone
   B. Live with partner/lover
   C. Live with another person(s)

6. My sexual orientation is primarily

   A. Bisexual
   B. Heterosexual
   C. Homosexual

7. How many years of school have you completed? _____

8. What is your approximate yearly income? $_____

9. Which of the following losses have you experienced in the last year? (Circle all that apply)

	How Many?
A. Spouse/partner/lover	_____
B. Family member(s)	_____
C. Friend(s)	_____
D. Pet(s)	_____
E. Financial	
F. Personal property	
G. Other: Please explain _____	

10. How long ago were you diagnosed with HIV disease?

_____ years _____ months

11. How do you think you contracted HIV disease? (Circle all that apply)

A. IV drugs
B. Blood product transfusion
C. Sex with male
D. Sex with female
E. Unsure, but sex related
F. Other: please specify _____

12. Have you been diagnosed with:

A. HIV+
B. ARC (how long?)_____
C. AIDS (how long?)_____

13. I have considered ending my own life

A. yes
B. no (proceed to question 15)

14. If yes, at what times were these thoughts most prevalent? (circle one) (if more than one time please rank 1-5 with 1 being the most prevalent, 5 being the least prevalent)

A. At HIV+ diagnosis
B. When first symptoms appeared
C. When diagnosed with ARC
D. At first hospitalization
E. When diagnosed with AIDS
F. Other: please specify _____

15. I believe persons should be able to end their own life

A. yes
B. no

16. If yes, under what conditions? (circle all that apply)
A. Terminal illness
B. Severe depression
C. Physical dependence
D. Financial dependence
F. Have no hope of recovery
G. Other _____

Appendix C

Instruments

BECK INVENTORY

On this questionnaire are groups of statements. Please read each group of statements carefully. Then pick the one statement in each group which best describes the way you have been feeling the PAST WEEK, INCLUDING TODAY! Circle the number beside the statement you picked. If several statements in the group seem to apply equally well, circle each one. Be sure to read all the statements in each group before making your choice.

1. 0 I do not feel sad.
   1 I feel sad.
   2 I am sad all the time and I can't snap out of it.
   3 I am so sad or unhappy that I can't stand it.

2. 0 I am not particularly discouraged about the future.
   1 I feel discouraged about the future.
   2 I feel I have nothing to look forward to.
   3 I feel that the future is hopeless and that things cannot improve.

3. 0 I do not feel like a failure.
   1 I feel I have failed more than the average person.
   2 As I look back on my life, all I can see is a lot of failures.
   3 I feel I am a complete failure as a person.

4. 0 I get as much satisfaction out of things as I used to.
   1 I don't enjoy things the way I used to.
   2 I don't get real satisfaction out of anything anymore.
   3 I am dissatisfied and bored with everything.

5. 0 I don't feel particularly guilty.
   1 I feel guilty a good part of the time.
   2 I feel quite guilty most of the time.
   3 I feel guilty all of the time.

6. 0 I don't feel I am being punished.
   1 I feel I may be punished.
   2 I expect to be punished.
   3 I feel I am being punished.

7. 0 I don't feel disappointed in myself.
   1 I am disappointed in myself.
   2 I am disgusted with myself.
   3 I hate myself.

8. 0 I don't feel I am any worse than anybody else.
   1 I am critical of myself for my weaknesses or mistakes.
   2 I blame myself all the time for my faults.
   3 I blame myself for everything bad that happens.

9. 0 I don't have any thoughts of killing myself.
   1 I have thoughts of killing myself, but I would not carry them out.
   2 I would like to kill myself.
   3 I would kill myself if I had the chance.

10. 0 I don't cry any more than usual.
    1 I cry more now than I used to.
    2 I cry all the time now.
    3 I used to be able to cry, but now I can't cry even though I want to.

11. 0 I am no more irritated now than I ever am.
    1 I get annoyed or irritated more easily than I used to.
    2 I feel irritated all the time now.
    3 I don't get irritated at all by the things that used to irritate me.

12. 0 I have not lost interest in other people.
    1 I am less interested in other people than I used to be
    2 I have lost most of my interest in other people.
    3 I have lost all of my interest in other people.

13. 0 I make decisions about as well as I ever could.
    1 I put off making decisions more than I used to.
    2 I have greater difficulty in making decisions than before.
    3 I can't make decisions at all anymore.

14. 0 I don't feel I look any worse than I used to.
    1 I am worried than I am looking old or unattractive.
    2 I feel that there are permanent changes in my appearance that make me look unattractive.
    3 I believe that I look ugly.

15. 0 I can work about as well as before.
    1 It takes extra effort to get started doing something.
    2 I have to push myself very hard to do anything.
    3 I can't do any work at all.

16. 0 I can sleep as well as usual.
    1 I don't sleep as well as I used to.
    2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
    3 I wake up several hours earlier than I used to and cannot get back to sleep.

17. 0 I don't get more tired than usual.
    1 I get tired more easily than I used to.
    2 I get tired from doing almost anything.
    3 I am too tired to do anything.

18. 0 My appetite is no worse than usual.
    1 My appetite is as good as it used to be.
    2 My appetite is much worse now.
    3 I have no appetite at all anymore.

19. 0 I haven't lost much weight, if any, lately.
    1 I have lost more than 5 pounds.
    2 I have lost more than 10 pounds.
    3 I have lost more than 15 pounds.
    I am purposely trying to lose weight by eating less.
    Yes ____ No _____

20. 0 I am no more worried about my health than usual.
    1 I am worried about physical problems such as aches and pains: or upset stomach: or constipation.
    2 I am very worried about physical problems and it's hard to think of much else.
    3 I am so worried about my physical problems that I cannot think of anything else.

21. 0 I have not noticed any recent change in my interest in sex.
    1 I am less interested in sex than I used to be.
    2 I am much less interested in sex now.
    3 I have lost interest in sex completely.

HS

This questionnaire consists of a list of twenty statements (sentences). Please read the statements carefully one by one.

If the statement describes your attitude FOR THE PAST WEEK, INCLUDING TODAY, write TRUE or T next to it. If the statement is false for you write FALSE or F next to it. Please be sure to read each sentence.

_____ 1. I look forward to the future with hope and enthusiasm.

_____ 2. I might as well give up because there's nothing I can do to make things better for myself.

_____ 3. When things are going badly, I am helped by knowing that they can't stay that way forever.

_____ 4. I can't imagine what my life would be like in 10 years.

_____ 5. I have enough time to accomplish the things I most want to do.

_____ 6. My future seems dark to me.

_____ 7. I happen to be particularly lucky and I expect to get more of the good things in life than the average person.

_____ 8. I just don't get the breaks, and there is no reason to believe I will in the future.

_____ 9. My past experiences have prepared me well for my future.

_____ 10. All I can see ahead of me is unpleasantness rather than pleasantness.

_____ 11. I don't expect to get what I really want.

_____ 12. When I look ahead to the future I expect I will be happier than I am now.

_____ 13. Things just won't work out the way I want them to.

_____ 14. I have great faith in the future.

_____ 15. I never get what I want so it's foolish to want anything.

_____ 16. It is very unlikely that I will get any real satisfaction in the future.

_____ 17. The future seems vague and uncertain to me.

_____ 18. I can look forward to more good times than bad times.

_____ 19. There's no use in really trying to get something I want because I probably won't get it.

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Appendix D

Permission Letters

UNIVERSITY of PENNSYLVANIA

PHILADELPHIA 19104-3246

Center for Cognitive Therapy
B. Gayle Twiname, RN, MSN, CS, MEd
Lamar University
P.O. Box 10081
Beaumont, Texas 77710

Please reply to:
Room 602
133 South 36th Street
Philadelphia, PA 19104-3246
(215) 898-4100

Dear

On behalf of Aaron T. Beck, M.D., I am responding to your recent inquiry regarding our research scales.

You have Dr. Beck's permission to use and reproduce the scale(s) checked below only for the designated research project that you described in your letter. There is no charge for this permission.

However, in exchange for this permission, please provide Dr. Beck with a complimentary copy of any reports, preprints, or publications you prepare in which our materials are used. These will be catalogued in our central library to serve as a resource for other researchers and clinicians.

I am enclosing a copy of the scale you requested.

- ✓ Beck Depression Inventory (BDI)
- ~~Beck Anxiety Inventory (BAI)~~
- ✓ Hopelessness Scale (HS)
- ~~Suicide Intent Scale (SIS)~~
- ~~Scale for Suicide Ideation (SSI)~~
- Cognition Checklist (CCL)
- Sociotropy-Autonomy Scale (SAS)
- Dysfunctional Attitude Scale (DAS)
- ~~Beck Self-Concept Test (BSCT)~~

If you have any further questions, feel free to contact me.

Sincerely,

Karen A. Madden
Research Materials Coordinator
for Aaron T. Beck, M.D.
Director, Center for Cognitive Therapy

TEXAS WOMAN'S UNIVERSITY
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AGENCY PERMISSION FOR CONDUCTING STUDY*

THE Bering Community Services Foundation

GRANTS TO B. Gayle Twiname
a student enrolled in a program of nursing leading to a Doctoral Degree at Texas Woman's University, the privilege of its facilities in order to study the following problem:

THE RELATIONSHIP BETWEEN HIV CLASSIFICATION
DEPRESSION AND SUICIDAL INTENT

The conditions mutually agreed upon are as follows:

1. The agency (may) (may not) be identified in the final report.
2. The names of consultative or administrative personnel in the agency (may) (may not) be identified in the final report.
3. The agency (wants) (does not want) a conference with the student when the report is completed.
4. The agency is (willing) (unwilling) to allow the completed report to be circulated through interlibrary loan.
5. Other _____

Date: July 3, 1991

Signature of Agency Personnel

Signature of Student

Signature of Faculty Advisor

* Fill out and sign three copies to be distributed as follows: Original-Student; First copy - agency; Second copy - TWU College of Nursing.

/bc

Appendix E

Thoughts of Suicide

Twenty one (27%) of subjects indicated that they had thoughts of suicide at times other than those indicated on the DDS (Table 17).

Table 17

Thoughts of Suicide

Other Times	n	%
Daily	4	5
Waiting for Disability	3	4
Physical Unattractiveness	4	5
Loss of Loved Ones	2	3
Fear of Becoming Homeless	4	5
Physical Dependence	4	5
Total	21	27

In response to the question "I have considered ending my own life", 70 (88%) indicated they have had thoughts of suicide. Of subjects thinking of suicide 8 (43%) were HIV+, 16 (59%) had ARC, and 24 (69%) had AIDS. One subject indicated that "I will commit suicide in the next year, my doctor has already given me the necessary drugs".

Appendix F

Right to Die

Forty-four subjects (55%) responded positively to the question "I believe persons should be able to end their own life". In response to the question "at what time" 12 (15%) indicated at any time (Table 18).

Table 18

Belief in the Right to Commit Suicide

Other Times	n	%
At Any Time	12	15
When in Great Pain	4	5
Total	16	20

Appendix G

Other Losses

In response to the question "which of the following losses have you experienced in the past year" 17 (20%) subjects responded to the "other" category (Table 19).

Table 19

Number of Losses

Other Losses	n	%
Self-Respect	4	5
Everything	2	2
Independence	3	4
Health	2	2
Home	4	5
Job	2	2
Total	17	20