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CANCER'S IMPACT ON LIVING: A PSYCHOANALYTIC STUDY OF
PSYCHOLOGICAL EFFECTS IN NEWLY DIAGNOSED, EARLY REMISSION,
AND LATE REMISSION OUTPATIENTS

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A PSYCHOANALYTIC STUDY OF
PSYCHOLOGICAL EFFECTS IN NEWLY DIAGNOSED,
EARLY REMISSION, AND LATE REMISSION OUTPATIENTS

A Dissertation

Submitted to the Graduate Faculty of the
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in partial fulfillment of the
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Doctor of Philosophy

in

The Department of Psychology

by

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ii
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TABLE OF CONTENTS

ACKNOWLEDGEMENTS ........................................... ii
LIST OF TABLES .................................................. v
ABSTRACT ........................................................... vi

CHAPTER

I. INTRODUCTION AND LITERATURE REVIEW ................ 1
   Introduction .................................................... 1
   Hypotheses ..................................................... 24

II. METHOD ......................................................... 27
   Subjects ........................................................ 27
   Instruments ..................................................... 29
   Procedure ...................................................... 40
   Data Analysis and Predictions ................................ 41

III. RESULTS ....................................................... 44

IV. DISCUSSION ................................................... 57

V. CONCLUSIONS .................................................. 69

REFERENCES ....................................................... 71
APPENDICES ....................................................... 78
VITA ................................................................. 97
<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Means and Standard Deviations of Test Variables for All 80 Subjects</td>
<td>45</td>
</tr>
<tr>
<td>2.</td>
<td>Summary of Correlation and Linear Regression Analyses Between Body Image and Other Test Variables (N=80)</td>
<td>46</td>
</tr>
<tr>
<td>3.</td>
<td>Means and Standard Deviations of Test Variables for Newly Diagnosed, Early Remission, and Late Remission Patients</td>
<td>48</td>
</tr>
<tr>
<td>4.</td>
<td>Summary of Test Variable MANOVA's of Newly Diagnosed, Early Remission, and Late Remission Patients</td>
<td>49</td>
</tr>
<tr>
<td>5.</td>
<td>Summary of Test Variable Univariate ANOVA's of Newly Diagnosed, Early Remission, and Late Remission Patients</td>
<td>50</td>
</tr>
<tr>
<td>6.</td>
<td>Means and Standard Deviations of Test Variables for Psychological Support and Matched Non-Psychological Support Groups</td>
<td>52</td>
</tr>
<tr>
<td>7.</td>
<td>Summary of Test Variable MANOVA's of the Psychological Support and Matched Non-Psychological Support Groups</td>
<td>53</td>
</tr>
<tr>
<td>8.</td>
<td>Summary of Test Variable ANOVA's of the Psychological Support and Matched Non-Psychological Support Groups</td>
<td>55</td>
</tr>
</tbody>
</table>
ABSTRACT

Hypotheses derived from psychoanalytic theory of body image were tested using 80 female cancer outpatients at various stages of the disease. Subjects were administered the following measures: Body-Cathexis Scale, Tennessee Self-Concept Scale, Fundamental Interpersonal Relations Orientation-Behavior Scale, Beck Depression Inventory, and a general information questionnaire. Results showed that body image is significantly related to self image and depression, but no significant relationship was found between body image and interpersonal needs behavior scores. Data also suggested the existence of denial as manifested by low self-criticism, personality integration, interpersonal needs behavior, and depression scores. Early remission patients differed most from newly diagnosed and late remission patients, by being less self-critical and obtaining higher interpersonal needs behavior scores. This difference suggested the establishment of a defensive system which may break down over time. Results further suggested that distress is not limited to early treatment and follow-up periods, since five or more years without recurrence was not sufficient to effect more positive scores. Further, patients who were voluntarily participating in psychological support groups achieved scores indicative of a healthier level of adjustment than
a matched random sample of patients involved in medical treatment only. Discussion concluded that data were supportive of psychoanalytic theory regarding emotional trauma of physical disease, as well as observations of other investigators. Implications for psychological services and future research were discussed.
CHAPTER I
INTRODUCTION AND LITERATURE REVIEW

Introduction

Although human beings have been recognized as psychobiological entities for a long time, a renewed interest in mind-body unity has recently occurred. This is perhaps best reflected by the current interest in a more holistic approach to diagnosis and treatment of illness known as comprehensive medicine (Wittkower & Warnes, 1977). Focus is on the patient's total situation, or as Garner (1966) stated: "treating a person with a disease rather than a disease in a person." Biological, psychological, and social factors must be equally understood in order to determine treatment which will best serve the individual as a total person.

The importance of acquiring and maintaining not only physiological homeostasis, but also psychological homeostasis during all phases of illness has been repeatedly emphasized (Linn, 1977; Moos & Tsu, 1977). "Psychological and psychiatric research has shown that man does not live by cells alone, nor is personality invulnerable to the morale corroding impact of physical disease" (Brown, 1966).

Few if any physical illnesses have the all-encompassing impact that cancer has. This disease affects the lives of hundreds of thousands of individuals each year,
yet, little is understood about its etiologies.

Statement of the Problem

Although recognized as a specific disease entity as early as 3000 years ago, the actual cause of cancer remains largely unknown. Any informed person is constantly exposed to the threat of proposed carcinogenic agents which are usually elements of the atmosphere or diet. Some factors which appear at least partially responsible for the especially negative attitude of individuals toward cancer are: the constant threat of cancer (Lynch, 1971); the increasing incidence of cancer diagnosis (Smith & Sebastian, 1976); the prevalent myth that cancer automatically means death or that death is more likely with cancer than other equally serious diseases (Stehlin & Beach, 1966); and a feeling of being a powerless victim of the slow, relentless, and unpredictable attack of cancer (List, 1964), particularly in a Western World that has searched for and valued rationality for centuries (Shands, 1966).

The nature of the cancer process itself poses numerous problems regarding effective treatment and psychological certainty of cure (Rosenbaum, 1975). Currently, cancer is usually treated with either surgical excision, radiotherapy, chemotherapy, or a combination of these. A more recent treatment approach is immunotherapy which focuses on ability of the rest of the non-neoplastic body to build
its own defenses to the disease. Unfortunately, the current popular methods of treatment, notably radiotherapy and chemotherapy, produce side effects, the severity of which varies among individuals. A factor of particular interest in this study is that cancer is not only equated with death per se, but with a progressive and painful approach to death which may include bodily mutilation occurring either naturally or as a result of treatment. The loss of significant body parts and functions, side effects of treatment, and the vigilant concern with bodily functions between follow-up check-ups may be more disruptive than the threat of death itself.

Body image integrity is continually threatened once an individual has had a cancer diagnosis. It was the intention of this study to develop the argument that the psychological effects of cancer are not limited to trauma immediately surrounding its diagnosis, nor to uncertainty regarding prognosis. The aim of this study was to demonstrate that adaptation is necessarily a continual process even for remission patients, because of induced changes in body image which in turn affect self-image and interpersonal needs. In addition, this study investigated the possibility that cancer patients who voluntarily participate in psychological support activities, rather than being more disturbed, have reached a healthier level of adaptation by virtue of willingness and ability to face
the illness and invest energy outside themselves in interactions with others.

Previous studies have largely ignored remission patients, as well as comparisons of patients at various phases of the cancer process. This is perhaps because many studies have focused exclusively on the implied threat of death which is more immediately relevant to newly diagnosed and terminal phase patients.

Theoretical Basis

According to classical psychoanalytic theory, the ego is ultimately derived from bodily sensations. Freud (1927) summed up this line of thought when he wrote, "the ego is first and foremost a body ego." The conception of one's body plays a special role in the development of a sense of reality. Recognition of the body as a stable and separate object constitutes one's first sense of identity and uniqueness. Fenichel (1945) defined the body image as "the sum total of mental representations of the body and its organs." The body image itself, according to Fenichel, constitutes the idea of "I" and provides a foundation for further formation of the ego.

Libido (mental energy) belongs to one's own body and is initially given to the body as a whole. It is later concentrated in body parts which have special significance. The body image is therefore gradually built up, as libido is attached to different parts of the body in different
stages of development.

The primitive ego is virtually powerless in relation to both its own instincts and the outside world. Being overwhelmed by external stimuli results in a sense of disorganized body activity, which may symbolize a threatened destruction of the self. During the earliest stages of development, the ego deals with this threat by means of denial. That is, any unpleasant stimulation is considered non-ego. This primitive mechanism is later manifested in individuals who acknowledge pleasurable body sensations as their own, but reproach aching organs as if they are foreign (Fenichel, 1945). Self-esteem is bound up with the ability to maintain bodily integrity and successfully prevent the experience of unpleasant stimulation. The ego is developed for the purpose of avoiding traumatic states. Events which are not anticipated are especially traumatic and are experienced more forcefully. When this occurs, libido or mental energy is concentrated on mastering disruption. Therefore, according to psychoanalytic theory, being sick makes a person more narcissistic (self-absorbed). The traumatic disruption caused by disease requires much mental energy and attention. This increased self investment occurs at the expense of energy investment in other interests and object relations. Narcissistic withdrawal may provide the basis for development of neurosis or psychosis as a consequence of physical disease. Psycho-
pathology may then represent an attempt to preserve the integrity of the body image or self image as it existed prior to trauma, in spite of perceptual evidence to the contrary.

Other theorists supported the importance of body image. Adler discussed "organ inferiority" with its implications for more generalized feelings of inferiority, and June and Rank symbolized the body as a "protective container" for the self (Fisher & Cleveland, 1958). Like earlier psychoanalytic theorists, Schilder (1950) also interpreted fear about body integrity as stemming from natural love of the body and need to preserve the self. It was his belief that obvious mutilation was not necessary for a change in body image to occur. According to Schilder, the fatigue, weakness, and loss of appetite which may accompany undetected cancer also induce body image changes. Although other theories address the importance of body image, the present study was concerned with classical psychoanalytic interpretation of body image. Therefore, Freud's theory was the focus of this review.

When a person is inflicted with a serious chronic illness like cancer, psychoanalytic theory would predict certain identifiable phenomena to occur: denial of unpleasant reality, i.e. denial of loss of body parts or functions; disruption of body image with anxiety and loss of self-esteem; mourning for the lost part or function which
may be manifested by depression; increased self-absorption to master or adapt to the traumatic disruption; and changes in interpersonal functioning, especially withdrawal from outside interests. Because cancer patients face a constant threat to body image, it is expected that level of self-esteem and interpersonal needs are affected. These implications should apply equally to remission patients, despite their temporary clean bill of health. Previous research has failed to fully test these implications across various phases of the cancer process.

Literature Review

Research involving the psychological aspects of cancer has taken several different trends over past years (Perrin & Pierce, 1959; Surawicz et al., 1976). This has included a search for significant personality attributes or life events as causative agents, a search for effects of personality attributes on progression of the disease, and a more recent search for a better understanding of the emotional impact of having cancer.

Personality Attributes and Life Events as Causative Agents

As early as the 18th and 19th centuries, physicians were noting how frequently certain life events tended to precede the development of a neoplasm (Kowal, 1955; LeShan & Worthington, 1957). Most frequently noted was loss of a significant person or life goal, followed by persistent
despair and hopelessness. In 1893, Snow completed the first statistical study in this area (LeShan & Worthington, 1957; LeShan, 1959). Based on interview information from 250 cancer patients and without benefit of a control group, Snow concluded that emotion could weaken an individual's ability to resist cancer. The bulk of the research in the 1940's through early 1970's pursued this hypothesis, and focused on description of cancer as either a psychosomatic disease preceded by specific emotional stress or precipitated by arrested personality development. In addition to individual methodological flaws, perhaps the greatest failure of these studies as a whole was interpretation of results as indicative of pre-illness personality alone. That is, they failed to take into account the effects that already having cancer might have on personality characteristics. Other methodological flaws included: small sample size, lack of control groups, use of subjective impressions, vague terminology without operational definitions, and inferences based on single score interpretations of the Rorschach. Representative findings of psychodynamic investigations of cancer patients included results such as the following: masochistic character structure (Bacon et al., 1952); anal character structure (Booth, 1969); sexual conflicts (Tarlau & Smalheiser, 1951; Bacon et al., 1952); greater use of repressing and denying ego defenses over projective defenses (Bahnson &
Bahnson, 1969; Butler, 1954); greater tendency to conceal emotional difficulties (Kissen et al., 1969); hormonal or body chemistry imbalance secondary to intrapsychic conflicts (Reznikoff, 1955; Hagnell, 1966); and ambivalence regarding outward versus inner directedness (Harrower et al., 1975). Other authors continued to focus on the significance of environmental stress events, rather than on intrapsychic conflicts. Results of representative studies claimed to link the development of cancer with such factors as: a sense of hopelessness and resignation from life, with increasing disorder in personal affairs, with a history of more frequent and intense emotional events, as well as loss of a significant love object (Booth, 1969 & 1974; Greene et al., 1956; LeShan & Gassmann, 1958; LeShan & Worthington, 1957; Pech, 1974; Renneker et al., 1963; Simonton & Simonton, 1975; Smith & Sebastian, 1976; and Voth, 1976). It is of course questionable whether depression precedes onset or is itself an initial symptom of neoplasia, occurring secondarily to physiological and body image changes. Studies which have included control groups or which have avoided using patients who already have cancer have failed to find such distinguishing characteristics (Finn et al., 1974; Grissom et al., 1975; Watson & Shuld, 1977).
Effects of Personality Attributes on Disease Progression

A related trend in psychological cancer research has been the attempt to find a relationship between personality variables and progression of the disease. Using the MMPI and Rorschach, Blumberg et al. (1954) found the following significant differences between patients having rapidly progressing tumors versus slow tumors: (a) high defensiveness or strong tendency to put up a good front in spite of inner distress; (b) anxiety and depression not relieved through usual channels of discharge or lack of ability to decrease anxiety through outward corrective actions.

Another study correlated more favorable prognosis with higher I.Q. and greater aggressiveness (Stravraky et al., 1968). Weisman and Worden (1975) found that patients who lived months beyond expected survival tended to maintain cooperative and mutually responsive relationships, while patients with death wishes, depression, apathy, and mutually destructive relationships survived a shorter length of time than expected. The authors interpreted results as evidence of pre-existing personality trait differences, but it is equally plausible that those who survived longer were better able to restore psychological equilibrium and self-esteem and thus reacquired ability to interact more effectively with others.
Search for Understanding the Emotional Impact of Cancer

The emotional stress experienced when an individual learns of a cancer diagnosis is inevitably great. Following diagnosis, remission, recurrence, some sustain the necessary determination for treatment, but others feel that they have endured enough or perhaps that the situation is hopeless. Eventually some resolution must be reached, and this may either be healthy adaptation which promotes growth, or maladaptive responses which set the psychological and physical stage for deterioration (Lipowski, 1970; Moos & Tsu, 1977). "True remission" occurs when an individual either resumes all premorbid pursuits which are possible, or successfully substitutes equally satisfying ones in the realms of work, social and recreational activities (Bronner-Huszar, 1971). It is a premise of this study that the ability to accomplish "true remission" requires restoration of internal stability of a sufficient degree to allow reinvestment of energy outside the self. Various authors have noted continued invalidism in some cancer patients who have been given a clean bill of health (Sutherland et al., 1952; Bronner-Huszar, 1970), and have also observed that death may occur as a result of psychological "malignant regression" manifested by food refusal, apathy, incontinence, bedsores, and secondary infection (Garner, 1966). These findings highlight the
importance of the remission period.

Adaptational tasks faced by cancer patients include those related to: discomfort and incapacitation, permanent changes in appearance, limited energy, loss of key roles, financial burden, increased dependency on others, maintaining satisfactory relationships, loss of control over present and future, and adjustment to a life revolving around treatment, examination, and reevaluation (Cobb, 1959; Mitchell, 1967; Moos & Tsu, 1977; Rosenbaum, 1975; Sutherland, 1952).

A review of the literature concerned with describing observed symptomatology in cancer patients yields an extensive list which includes: anxiety, depression, dependency, paranoid reactions, suicidal thought, inferiority feelings, withdrawal, isolation, suppression, denial, obsessive preoccupation, anger, guilt, envy, shame, and hypochondriasis (Bronner-Huszar, 1971; Finn et al., 1974; Francis, 1969; Garner, 1966; Hinton, 1973; Kline & Sorbin, 1951; Moos & Tsu, 1977; Naylor, 1967; Renneker & Cutler, 1963; Surawicz et al., 1976; and Sutherland et al., 1952).

Schonfield (1972) followed 42 patients who were beginning radiotherapy. Nine months after the initial interview, he found that only 33 had returned to work. There was no evidence of recurrence in any of the patients, and no significant differences were found between workers
and non-workers in sex, age, marital status, number of treatments, or type of work previously engaged in. However, those who returned to work had lower scores on the Moral Loss Scale and higher scores on the Well Being Scale of the MMPI. Apparently, patients with a higher level of self-esteem and less depression were better able to invest themselves in their jobs again. Weisman and Worden (1976) described an "existential plight period" which they claimed exists from the time of diagnosis through the first 100 days or so. It is highly questionable that the process of reevaluation of life issues is confined to a 100 day period.

Bernay (1976) studied anxiety and depression in a limited sample of 16 patients undergoing radiotherapy. He reported: (a) that intensity of anxiety and depression was not proportionate to severity of illness; (b) greater depression in non-married patients and non-surgical patients, but less depression in those patients attempting to resume a normal modified life style; and (c) more initial anxiety and depression in counseled patients, with non-counseled patients becoming more anxious over time. This investigator suggested the need for a screening and follow-up model of services for cancer patients.

Much of the literature covers a host of symptoms without delineating specific problem areas, or possible interrelatedness of factors. There is also a tendency to
assume that the difficulties encountered by cancer patients are virtually the same as those experienced by terminally ill patients. What is clear is that some cancer patients cope reasonably well while others do not, and this difference cannot be accounted for solely on the basis of degree of severity of illness. At the present time researchers are increasingly focusing attention on discovering what patients who successfully cope either do or do not do. In general it may be said that patients who cope well tend to confront problems directly, redefine tasks in more solvable terms, readily use other resources for help, and do not hesitate to ask for more information or better treatment (Kolb, 1975; Worden & Sobel, 1978). Four factors which appear to single out patients who will be especially vulnerable to psychological stresses of cancer include: annihilation, alienation, denial, and dysphoria (Weisman, A. D., 1976). Weisman and Sobel (1979) have hypothesized that the ability to re-establish a sense of self control may be a key to successful coping. Although operating from a different theoretical framework, observations of these investigators support theoretical assumptions of this study.

**Body Image Research**

Body image as a psychological experience central to personality functioning has received relatively little attention in non-psychoanalytic circles until recent years.
Following a thorough survey of body image literature, Fisher and Cleveland (1958) concluded that most research up to that point in time included descriptive studies of the effects of neurological damage, phantom limb phenomena, body image disturbances observed in neuroses and psychoses, effects of drugs and hypnosis on body image, and psychological consequences of bodily mutilation. Many of the studies did not include actual measurements of body image, and often did not go beyond stating that patients experienced anxiety and had difficulty accepting their mutilated bodies.

Secord and Jourard (1953) were the first to investigate conscious body-concept as it relates to conscious self-concept. They defined body cathexis as the "degree of feeling of satisfaction with various parts or processes of the body." These authors constructed the Body-Cathexis -- Self-Cathexis Questionnaire on the assumption that body-cathexis is integrally related to self-cathexis. Preliminary investigations found: (a) that body and self cathexis did covary and tended to be cathected to the same degree regardless of direction; and (b) that low body cathexis was associated with anxiety in the form of undue concern with pain, disease, or bodily injury, as measured by the anxiety indicator of their scale, and also with insecurity as measured by the Maslow Test of Security-Insecurity. Another author (Mahoney, 1974) supported the
existence of a primary relationship between self and body cathexis. Original correlations between body and self cathexis were not changed significantly when subjects were asked to rate subjective importance of various body aspects.

Schwab and Harmeling (1968), noting a lack of data on significance of medical patients' conscious feelings about their bodies, designed an exploratory study which included 124 medical patients with various disorders. Significant results which are relevant to the current study are: (a) medical patients' mean scores on the body image scale were similar to those reported for female psychiatric patients, and lower than previously reported for non-hospitalized healthy college students; (b) negative feelings were primarily focused on parts and functions afflicted by illness, but 20% of the patients experienced generalized dissatisfaction; (c) neither duration of illness nor physicians' rating of severity of illness correlated significantly with body image scores; and (d) patients with abnormal mental status exams achieved lower body image scores. The authors themselves recognized numerous methodological flaws as well as the exploratory nature of their study. However, their conclusions support a relationship between body concept and attitude toward the self, as well as the idea that ego integration depends in part on maintaining realistic body perception.
Kubie (1945) stated that loss of a limb has both universal and individual meaning for patients due to symbolic implications of unconscious fantasy feelings. This explained his observation that certain patients were more disturbed by loss of the same body part than others. However, a commonly reported feeling is one of castration (Weiss, 1958). Prosen (1965) speculated that patients who seem more independent may be the ones who want someone's help but cannot admit it. It was also his observation that patients who cling to their old body image cling to old hopes and aspirations, and as a result quickly lose motivation.

Kolb's (1975) review of literature on body image disturbances led him to conclude that "distortion of customary body image is experienced as a distortion of self." He also supported the idea that disturbed body image may instill anxiety about rejection from significant others which may be defended against by expressions of hostility toward others. Kolb explained depression which often accompanies body image disturbances as mourning for the lost part, and/or an overexpectation of rejection or separation from others.

Research specifically addressing body image experiences of cancer patients is scarce. Fisher and Cleveland (1956) hypothesized a relationship between body image and site of cancer. They predicted that individuals with
interior cancer would obtain higher penetration scores on the Rorschach, while those with exterior cancer were expected to obtain higher barrier scores. They analyzed the Rorschach protocols of 6 patients with exterior cancer and 11 with interior cancer, and on the basis of blind analysis were able to correctly identify type of cancer in all but 2 of the records. The sample was then enlarged to 59 patients with exterior cancer and 30 having interior pathology. Records of patients with exterior cancer had a higher number of barrier scores, while records of interior cancer patients had a higher number of penetration scores (p < .01). In order to rule out the possibility that pains or sensations in different parts of the body were responsible for results obtained, these investigators compared the Rorschachs of patients who had had colostomies 10 years prior to the study, with patients who had had colostomies only 1 year prior to the study. They argued that if scores were merely due to impact of symptomatology, then patients who had been dealing with the symptoms longer should obtain higher penetration scores. Since no significant differences were found, they concluded that attitudes toward the body partially determine the site of development of physical symptoms by sensitizing certain areas of the body to development of illness during time of stress. This study shares the major flaw of other studies that assumed results as solely indicative of
pre-illness personality. It is equally likely that once ill, interior cancer patients focus on damaged interior aspects of their body image, while exterior cancer patients focus on damaged exterior body parts. It is also questionable how these investigators arrived at the assumption that 10 year colostomy patients should have more penetration scores than 1 year patients, since duration and severity of illness have not been proven to have significant effects on body image scores. That 10 year and 1 year patients did not differ does raise an interesting question. Some previously cited research would predict 10 year patients to give less penetration scores, since 10 years with no recurrence should make them feel less vulnerable to the disease. This is of course assuming that the primary concern is threat of death.

Orbach and Tallent (1965) summarized the descriptive comments of 48 colostomy patients' feelings about their bodies. Many of their patients perceived colostomy as a physical or sexual wound. This sense of violation was not relieved by closing the perineal wound or reduction in bleeding. Even 5 to 10 years after surgery, many patients still felt their functioning to be seriously disrupted. Those who thought of their bodies as weak also experienced changes in personal and social identity concepts, i.e. reduction in physical exercise, sexual activity, etc. Some men felt feminized by the extra opening, and some
women envisioned it as an extra vagina. Hypochondriacal organization accompanied by withdrawal from others was also observed. The Rorschachs of 31 patients who had been in remission for 5 to 10 years were subjected to blind interpretations. Several of the records were judged to be indicative of overt psychosis, with an additional number thought to be preclinically psychotic. A general syndrome emerged which included: a facade covering depression, anxiety, sense of inadequacy, loss of sense of personal integrity and bodily integrity, rigidity with obsessive compulsive and/or paranoid features, de-emphasis on barrier scores, and a general turning inward or constriction of personality. Although this study is mainly descriptive and does not clearly delineate basis for interpretation of the Rorschach or operationally define psychological terms, it does raise the question of whether a parallel exists between the constricted life space often observed in colostomy patients and a permanently damaged body image. If so, it appears that the assurance of a greater chance for survival due to passage of time with no recurrence does not necessarily relieve symptoms of psychopathology.

Polivy (1975) summarized the literature on the psychological effects of radical mastectomy. She reported patients who showed severe denial manifested by failure to admit that serious surgery had been performed even
months after the mastectomy. Polivy speculated that mastectomy poses a direct threat to a woman's feminine self-concept, and demands coping with loss of a significant body part in addition to fears and anxiety associated with the disease itself. She cited results of a Gallup Survey for the American Cancer Society in which 51% equated breast removal with loss of a sense of womanhood.

In order to study the effect of radical mastectomy on body image and self-image, Polivy (1977) studied three groups of women who were to undergo surgery: mastectomy, breast biopsy, and a mixture of other types of surgery. Measuring instruments included an interview and a body image scale which were administered just prior to surgery, 4 to 6 days after surgery, and 6 to 11 months after surgery. Women who were to have either a breast biopsy or mastectomy spontaneously expressed greater fears of death or disfigurement during the preoperative interview, which was interpreted as a need to protect the breast more than other body parts. General surgery patients' scores did not significantly vary across the three administrations. Biopsy patients' scores declined on the second administration immediately after they found out they did not have cancer. Polivy interpreted this as a breakdown of severe denial, which may mask emotional trauma or possibly allow a woman to slowly integrate her new body into her self-image. Polivy's conclusion that women need to protect the
breast more than any other body part appears premature, especially since this was based on failure of general surgery patients to spontaneously express fears of disfigurement or death during the initial interview. These women were not faced with the threat of cancer per se, nor to random threat to body image due to further treatment or disease process. For some general surgery patients, the surgery could represent the end rather than beginning of disease process. The most significant finding of this study is that severe emotional effects may not surface until up to one year after discovery of cancer, and that they may go undetected because of a continuation of denial or other defense mechanisms which facilitate avoidance rather than coping and adaptation.

Integration of Psychoanalytic Theory with Previous Research

Cancer means destruction of body tissue. According to psychoanalytic theory, a healthy body image necessarily precedes a healthy self-concept and ability to invest energy outside the self in interpersonal interactions and outside interests. Results of various studies cited support these basic assumptions. However, theoretical implications have not been completely tested nor have they been examined across phases of the cancer process. Cancer poses not only threat of death, but also constant threat to body image integrity. Some cancer patients continue feeling mutilated years after treatment, despite passage
of crucial survival periods (Fisher & Cleveland, 1956; Orbach & Tallent, 1968; and Polivy, 1977). This implies that even during the remission phase a continual process of adaptation is required.

While the body image threat is inherent in the nature of the disease, it seems likely that threat of death in the near future is greater at certain phases of illness. For example, threat of death is probably more relevant at the beginning of treatment when one does not know whether status will be "remission" or "terminal", than it is five or more years into remission. Although a greater chance of survival is expected to alleviate some distress, it is questionable whether this is sufficient to significantly alleviate emotional distress generated by body image effects, i.e. poor self-image, depression, and inability to meet interpersonal needs.

It was expected that a damaged body image results in low self-image, greater depression, and less ability to satisfactorily meet interpersonal needs. An interesting question was whether or not some of these symptoms of emotional distress are equally prominent across illness phases.

Psychoanalytic theory also raises a question concerning patients who voluntarily participate in available psychological support activities. That is, rather than being narcissistically preoccupied with illness, these
patients may have a healthier body image which in turn promotes a higher level of self-esteem, less depression, and greater ability to invest themselves in outside activities for meeting coping needs. This would support the suggestion of some researchers that the more distressed may need to be actively sought out by concerned professionals in order to more effectively treat the total person and prevent cases of "malignant regression" previously described (Garner, 1966).

Hypotheses

The psychological impact of cancer was examined in terms of cancer's effect on body-concept, self-concept, mood, and interpersonal needs behavior at different phases of the cancer process:

Specific hypotheses investigated were:

#1 The self-concept, mood, and interpersonal needs behavior of cancer victims covary with conscious body concept. A positive body concept correlates with a healthy self-concept, less depression, and a healthy degree of interpersonal needs behavior both expressed toward others and wanted from others.

#2 Cancer victims, regardless of illness phase, face a constant threat to body-image integrity even after the initial body image disturbance of treatment. In addition to the threat to body image, there is the additional threat of death in the near future which
is more likely at certain phases of the illness.

(a) If threat to body image integrity is constant, newly diagnosed, early remission, and late remission patients will not differ on conscious measures of body-concept, self-concept, depression, and interpersonal needs behaviors.

(b) If threat of death in the near future is as or more prominent than the body image threat, newly diagnosed, early remission, and late remission patients will differ on conscious measures of body-concept, self-concept, depression, and interpersonal needs behavior, since passage of time with no recurrence reduces the likelihood of death in the near future, and should reduce intensity of emotional disruption.

#3 Cancer victims who voluntarily participate in psychological support services may have a healthier level of psychological adaptation to the illness rather than a disturbed preoccupation with it.

(a) If participation indicates adaptation, patients involved in these services will differ from patients receiving physical treatment only, by achieving scores indicative of a healthier level of psychological adjustment as measured by conscious body-concept, self-concept, depression, and interpersonal needs behaviors.
(b) If participation indicates disturbed preoccupation with the illness, patients involved in these services will differ from patients receiving physical treatment only, by achieving scores indicative of a less healthy level of psychological adjustment as measured by conscious body-concept, self-concept, depression and interpersonal needs behaviors.

Operational Definitions

**Body-Concept:** Degree of feelings of satisfaction or dissatisfaction with the various parts or processes of the body, as measured by self-ratings.

**Self-Concept:** Degree of self-worth or self-esteem as measured by self-ratings of conscious attitudes and feelings about the self.

**Depression:** Self-rated intensity of behavioral manifestations of clinical depression.

**Interpersonal Needs Behavior:** Self-rated intensity of the needs for inclusion, control, and affection behaviors both wanted from others and expressed toward others.

**Healthy Level of Psychological Adjustment:** As measured and defined by measures of conscious body-concept, self-concept, depression, and interpersonal needs behavior scales employed in this study.
CHAPTER II

METHOD

Subjects:

Eighty outpatient female cancer patients who were either in treatment or had received radiotherapy and/or surgical treatment in the past comprised the sample for this study. Sixty patients had cervical cancer and twenty had a variety of types of cancer. Subjects were divided into the following four groups:


2. The early remission group consisted of 20 cervical cancer patients who had completed treatment and had not had a recurrence for one to two years, but were involved in medical follow-up check-ups.

3. The late remission group consisted of 20 cervical cancer patients who had completed treatment and had not had a recurrence for five or more years, but were involved in medical follow-up check-ups.

4. The psychological support group consisted of 20 patients with a variety of types of cancer who in addition to medical treatment were participants in cancer self help support groups. This group included newly diagnosed, early remission, and late remission patients comparable to the other three groups. These
subjects were recruited from support groups open to all persons affected by life-threatening illness. The groups are identified as organizations which provide the opportunity for individuals to learn more about coping with illness both from professionals and other patients.

**Demographic Variables:**

Efforts were made to control for the effects of age, sex, educational, socioeconomic, race, and prognosis variables as follows:

1. Patients younger than late 20's and older than mid 60's were excluded, and age differences were equalized across groups.
2. Only female patients were included.
3. Subjects with less than an eighth grade education were excluded.
4. Possible socioeconomic effects were randomized by including approximately equal numbers of patients who were under the care of private physicians and those from institutional facilities (county hospital and clinic).
5. Fifty-one percent of the subjects were Caucasians, 40% were Mexican-Americans, and 9% were Black-Americans.
6. Patients involved in professional psychotherapy or counseling with a religious minister were excluded.
7. Only patients with cervical cancer were included in Groups 1-3 in order to control for effects specific to
type of cancer. Cervical cancer was of particular interest because it affects young as well as elderly women, and has a high incidence rate across socioeconomic groups. It was not possible to limit type of cancer in the psychological support group (Group 4), since current membership did not allow recruitment of 20 cervical cancer patients.

** Instruments:

** General Information Questionnaire

The General Information Questionnaire in Appendix A was constructed by the experimenter for the purpose of acquiring demographic information, as well as general illness information. This information was used for matching subjects across groups and assuring that no subject who failed to meet specified criteria was included. In addition, a question concerning fear of death was included as a measure of conscious acknowledgement of death fear.

** Body-Cathexis Scale

The Body-Cathexis Scale (Secord & Jourard, 1953) was constructed on the premise that attitude toward the body is integrally related to self-concept and therefore crucial to the understanding of personality. Body-Cathexis (BC) is defined as "degree of feeling of satisfaction or dissatisfaction with the various parts or processes of the body." This scale includes a list of 46 body parts and functions, each of which S rates on a 1 to 5 scale of satisfaction-
dissatisfaction. The Body-Cathexis Scale was derived in the same fashion that Secord and Jourard (1953) scored it. That is, the ratings of all 46 items were summed and divided by 46 to obtain a single average BC score.

The BC Scale is the only one of its kind which has been used more than once or twice in studies (Wylie, 1974). Secord and Jourard (1953) reported split-half reliability coefficients of .78 (males) and .84 (females). Subjects who had indicated response sets were excluded from the reliability calculations. If included, these coefficients would have been higher. Split-half reliability coefficients as high as .91 have been reported (Wylie, 1974). Johnson (1956) reported a test-retest coefficient of .72 for a sample of male college students after a 6 to 8 week interval.

This scale, as is the case with many personality inventories does lack convergent and discriminant validity. However, no other scale purports to measure the body image construct as defined by Secord and Jourard (1953). It has been found useful in obtaining theoretically predicted correlations with various other variables. Correlations with Maslow's Security-Insecurity Inventory have ranged from -.21 to -.37 (Wylie, 1974). Secord and Jourard (1953) reported an r of .58 between BC and their own Self-Cathexis (SC) Scale for males, and an r of .66 for females. Johnson (1956) obtained correlations of -.33 (males) and -.40
(females) for BC and the Cornell Medical Index Questionnaire, and r's of -.40 (males) and -.53 (females) for BC and Taylor's Manifest Anxiety Scale. Jourard and Secord (1954, 1955) reported significant correlations for a number of BC item ratings and size of body part for both males and females. That is, the closer the actual size of the body part was to the rated ideal size, the more positively it was cathected. The same held for the negative direction.

Jaskar and Reed (1963) utilized 5 measures of body-cathexis in their study: Rorschach Barrier Scores, Rorschach Penetration Scores, Drawing Completion Test, Homonym Word Association Test, and the BC Scale. BC was the only measure which successfully differentiated hospitalized women psychiatric patients from non-hospitalized women. The authors concluded that body cathexis as measured by this scale is related to adjustment and does affect behavior. This study also questions the assumption that a single unitary construct of body image exists which can be equally measured across different levels of awareness, and across different measures purporting to measure the same construct.

Wylie (1974) concluded that the BC is suitable for research due to its reasonably good reliability and significant correlations with a number of theoretically predicted variables, but cited a need for more research on BC as well as other body image measures.
Clinical and Research Form of the Tennessee Self-Concept Scale

The Clinical and Research Form of the Tennessee Self-Concept Scale (TSCS) developed by Fitts (1965), was the self-concept measure utilized in this study. This scale is presented in Appendix C.

One hundred self-descriptive items, of which 90 assess self-concept and 10 assess self-criticism (all MMPI Lie Scale items), make up the TSCS. It is suitable for subjects 12 years of age and over, who have at least a 6th grade education. The respondent is required to choose one of five response options labeled from "completely false" to "completely true." The Clinical and Research Form yields 30 scores: self criticism, 9 self esteem scores (identity, self satisfaction, behavior, physical self, moral-ethical self, personal self, family self, social self, total), 3 variability of response scores (variation across first 3 of the self esteem scores, variation across the last 5 self esteem scores, total), distribution score, time score, response bias, net conflict, total conflict, 6 empirical scales (defensive positive, general maladjustment, psychosis, personality disorder, neurosis, personality integration), deviate signs, and 5 scores consisting of counts of each type of response made. Empirical scales of the TSCS, like the MMPI, were derived by including items which empiric-
ally differentiated one group of subjects from another. Norms for the TSCS are based on a sample of 626 persons varying in age, sex, race, and socioeconomic class.

A great deal of research has been stimulated by this instrument, which ranks among the better measures combining group discrimination with self-concept information. Significant life experiences such as psychotherapy and hospitalization have been shown to change self-concept as measured by the TSCS (Suinn, 1972). The self-concept has been found to be a valid predictor of many aspects of behavior, and has correlated with many other variables: feelings, attitudes, interpersonal behavior, and mental health. Therefore, it is assumed that knowledge of self-concept can increase understanding beyond what can be learned from demographic data such as socioeconomic class, race, etc.

Schwab, Clemmons, and Marder (1966) found low self-concept scores significantly correlated with medical patients' feeling that illness had adversely affected their life, and with patients' feeling less optimistic regarding illness outcome.

Bentler (1972) reported high correlations of the TSCS with other measures of personality functioning: the TSCS Total Positive correlates -.70 with the Taylor Manifest Anxiety Scale, from .50 to .70 with the Cornell Medical Index, and correlations with various MMPI scales are
frequently in the .50's and .60's. Fitts (1965) reported a 2 week test-retest reliability coefficient of .91 for total self regard. Retest reliability varies for different scores, but is generally in the high .80's, which is considered sufficiently large to warrant confidence in individual difference measurement.

Wylie (1974) and Bentler (1972) criticized the widespread discriminant use of the separate self-esteem scores. These reviewers pointed out the existence of item overlap and high intercorrelations between self-esteem subscales. While the instrument has demonstrated clinical and research utility, the dangers of overinterpretation of subscale scores must be kept in mind. Therefore, the Total Positive score rather than the individual self-esteem subscale scores was included in the present analysis.

Subjects were compared on the following variables:

**Total Positive Score**: overall level of self-esteem which is derived by summing all self-esteem subscales.

**Self-Criticism Score**: openness or willingness to reveal negative features, as opposed to defensiveness or an effort to distort the self description favorably.

**Distribution Score**: measure of certainty of self-perception. It is a summary of other distribution counts. A high score indicates an over-definite self concept; a low score reflects an uncertain or poorly differentiated self concept.
**General Maladjustment Scale Score**: an empirical scale consisting of items which differentiated general psychiatric patients from non-patients.

**Personality Integration Scale Score**: an empirical scale which measures similarity in self-perception to a group of subjects, judged by outside criteria, to have a better-than-average level of adjustment.

**Fundamental Interpersonal Relations Orientation—Behavior Scale**

Schutz (1966) proposed a theory of interpersonal relationships which he conceptualized in terms of three major variables: inclusion, control, and affection. Schutz believed that a person's interpersonal relationships can be characterized by these three needs. The Fundamental Interpersonal Relations Orientation—Behavior Scale (FIRO-B) developed by Schutz (1967), measures his three dimensional theory of interpersonal functioning. He defined the three needs as follows: (a) inclusion, the need to establish and maintain satisfactory interaction and association with people; (b) control, the need to have satisfactory control and power relationships with people; and (c) affection, the need to establish love and affection relationships with people. In addition, two aspects of these dimensions are measured: the behavior expressed toward others and the behavior wanted from others. This scale is presented in Appendix D.
The FIRO-B was constructed on Guttman principles and is suitable for grades 9-16 and adults. The subscales contain nine single statement items, each of which is to be answered on a 6 point scale. This results in high internal consistency of keyed responses to the items in each subscale. FIRO-B yields the following scores: expressed inclusion, wanted inclusion, expressed control, wanted control, expressed affection, wanted affection, total inclusion, inclusion balance (difference between wanted and expressed inclusion), total affection, affection balance, total control, control balance, and 4 summary scores (total expressed behavior, total wanted behavior, grand total involvement, and total balance score). Some significant intercorrelations have been reported. However, correlation between wanted and expressed affection would be expected since both involve the same need.

Bloxom (1972) summarized the psychometric data on FIRO-B. Internal consistency (reproducibility index) is high for all subscales, and all test-retest correlations are adequate (over .70). Schutz reported a mean retest r of .76. Norm group means for subscale and combination scores are available for a variety of student and occupational groups. Validity studies suggest that FIRO-B's subscales are related to nontest interpersonal behavior as well as to other personality measures. Scale scores have been found to be correlated with such variables as:
rated effectiveness of supervisors, production of good ideas in brain-storming groups, rated creativity, grades, couple compatibility, and diagnosis of schizophrenia. The scale is judged to have demonstrated sufficient merit for its use in research.

The 4 summary scores which were included in analysis are:

Total Expressed Needs: Total affection, inclusion and control behaviors expressed toward others.

Total Wanted Needs: Total affection, inclusion and control behaviors wanted from others.

Grand Total Involvement: Total expressed and wanted needs or degree of involvement with others.

Total Balance Score: The difference between total affection, inclusion, and control behaviors expressed toward others and wanted from others.

Beck Depression Inventory

The Beck Depression Inventory (BDI: Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) was developed in an effort to construct a quantitative measure of behavioral manifestation of depression. This scale is presented in Appendix E.

The BDI consists of a list of descriptive statements found to be related to symptoms and attitudes characteristic of depression, such as self-accusation, pessimism, withdrawal, hypochondriacal preoccupation, etc. This
self-rating scale consists of 21 categories, each describing a specific behavioral manifestation of depression. Each category consists of a graded series of 4 to 5 self-evaluation statements. Numerical values of 0-3 are assigned to each statement to indicate degree of severity. Total score may range from 0 to 63 when scores in all categories are summed.

Beck et al. (1961) reported results obtained when the BDI was administered to an initial sample of 226 psychiatric patients in both inpatient and outpatient facilities, as well as results obtained in a replication study of 183 patients. Scores on the BDI were compared with depth of depression ratings which were made by experienced psychiatrists. Mean scores for depth of depression ratings were: (a) no depression (10.9); (b) mild depression (18.0); (c) moderate depression (25.0); and (d) severe depression (30.0). Correlations between BDI scores and clinical ratings were .65 (p < .01) in the initial sample, and .67 (p < .01) in the replication sample. Scores on all individual categories were found to be significantly related to total BDI (p < .01). The authors reported a split half reliability of .86, which increased to .93 with a Spearman Brown correction. When administered at 2-6 week intervals, changes in scores paralleled changes in rating of clinical depth of depression.

Metcalfe and Goldman (1965) compared hospital admis-
sion and discharge scores of depressed patients and found differences which were highly significant \((p < .001)\). In a similar fashion to Beck et al. (1961) these authors correlated BDI scores with four depth of depression ratings, and obtained an \(r\) of \(.616\) \((p < .001)\). They found no significant association between BDI admission scores and age, intelligence, or sex.

Johnson and Heather (1974) demonstrated validity and usefulness of this instrument in general medical practice. Seventy-three consecutive patients who presented to their physicians with a new episode of depressive illness were interviewed on 3 separate occasions: within 7 days, 4-6 weeks later, and 16-18 weeks later. At each interview a clinical rating of depression was made, and the PDI was administered. During the second and third interviews a symptom change rating was recorded. The relationship between rating of symptom change and BDI scores change was highly significant \((p < .001)\). Improvement in clinical ratings were paralleled by decrease in BDI scores. An interesting finding was an overall tendency for BDI scores to decrease when symptom changes were not great enough to warrant a change in clinical rating \((p < .01)\). Sixty-two percent of the patients whose clinical ratings remained constant with a BDI score decrease, went on to demonstrate improvement in the next interview. The authors concluded that the BDI is sensitive to improvements of symptoms which
do not warrant a change in clinical rating.

Seitz (1970) found significant correlations between BDI and other self-report depression inventories: .83 with the Zung Depression Scale (p < .01); .62 with the depression subscale of Miskimins Self-Goal-Other Discrepancy Scale (p < .01); and .41 with the MMPI D Scale (p < .05).

In addition to demonstrating validity and reliability of sufficient degree for research, the BDI can be answered easily, requires little time, and provides an index of intensity of depression which is independent of clinical rater bias.

Procedure

Patients were referred to the experimenter by participating physicians. Either the experimenter or family counselor at the Cancer Therapy Center contacted the patients individually to arrange for participation. When contacted the patients were asked to participate in a research project, the goal of which was to reach a better understanding of how cancer affects the lives of individuals. Only two patients refused to participate. Interested patients were given the information in the informed consent form (Appendix F) and were asked to sign it before proceeding.

All subjects completed the General Information Questionnaire, BC Scale, TSCS, FIRO-B, and BDI individually.
Efforts were made to avoid making participation stressful or an interference with treatment appointments. Subjects were not required to identify themselves on any of the measuring instruments. A list of participants was kept separately from the data, and measures were number coded as they were given to the subjects to complete.

This procedure was repeated until data was gathered from the first 80 patients meeting the criteria for inclusion in the study.

**Data Analysis and Predictions**

Variables on the General Information Questionnaire were tested with ANOVA's.

Hypothesis #1 was tested by including the scores on BC (body-cathexis), TSCS (total positive regard, self-criticism, distribution, general maladjustment, and personality integration scores), FIRO-B (total expressed, total wanted, total involvement, and total balance scores), and BDI (total score) in an overall (all 80 Ss) Pearson r correlation analysis. It was expected that positive (higher) BC scores would correlate with scores of variables indicative of a more positive self-concept, healthy degree of expressed and wanted involvement with others, and less depression, while negative (lower) BC scores were expected to correlate with scores of other variables indicative of a more negative self-concept, less healthy degree of expressed and wanted involvement with others, and greater
depression. An alpha level of .05 constituted significance. In addition, these test variables were also included in regression analyses with BC as the predictor variable.

Hypothesis #2 was tested by including the scores of newly diagnosed, early remission, and late remission groups (Groups 1, 2, 3) on the eleven BC, TSCS, FIRO-B, and BDI variables in a MANOVA and univariate ANOVA's with Duncan Multiple Range tests if differences were found. It was predicted that if differences were found, newly diagnosed and late remission patients (Groups 1 & 3) would differ more than newly diagnosed and early remission patients (Groups 1 & 2) and also more than early and late remission groups (Groups 2 & 3).

Hypothesis #3 was tested by comparing the patients in psychological support activities (Group 4) with a matched sample of 20 patients randomly selected from the other three groups of patients receiving medical treatment only. Scores of the two groups on BC, TSCS, FIRO-B, and BDI variables were included in MANOVA and univariate ANOVA's with appropriate post-ANOVA tests if differences were found. In addition, an analysis of covariance was completed in order to partial out the effect of a higher level of education in the psychological support group. It was expected that if participation in psychological support services indicates a disturbed preoccupation or
investment with the illness, then scores of the psychological support group would be in the direction of a less healthy level of psychological adjustment as defined by these personality scales (p < .05).
CHAPTER III
RESULTS

Means and standard deviations of all 80 subjects on the eleven test variables are presented in Table 1.

Hypothesis #1 was tested with overall Pearson Product-Moment correlations among the eleven test variables, and also with linear Regression Analyses. A summary of these analyses is presented in Table 2. Significant correlations (p < .05) were obtained in the expected directions between BC, all but one of the Tennessee Self-Concept (TSCS) variables, and the Beck Depression Inventory (BDI). None of the correlations between BC and the Fundamental Interpersonal Relations Orientation-Behavior Scale (FIRO-B) variables were significant. Since middle scores are the optimum scores on this scale, it was suspected that a significant curvilinear relationship might exist between BC and the FIRO-B scales. However, scattergram analyses failed to support a significant curvilinear relationship. FIRO-B variables did correlate significantly with some of the TSCS variables and the Beck Depression Inventory (BDI). A complete correlation matrix is presented in Appendix G. This matrix reveals that many of the variables were intercorrelated. In the Regression Analyses, BC accounted for 32% of the variance in predicting TSCS Total Positive...
TABLE 1
Means and Standard Deviations of Test Variables for All 80 Subjects

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-C</td>
<td>3.48</td>
<td>.53</td>
</tr>
<tr>
<td>TSCS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Positive</td>
<td>344.60</td>
<td>39.95</td>
</tr>
<tr>
<td>Self Criticism</td>
<td>33.82</td>
<td>7.19</td>
</tr>
<tr>
<td>Distribution</td>
<td>126.80</td>
<td>34.99</td>
</tr>
<tr>
<td>Personality Integ.</td>
<td>7.79</td>
<td>5.10</td>
</tr>
<tr>
<td>General Maladjustm.</td>
<td>92.35</td>
<td>15.62</td>
</tr>
<tr>
<td>FIRO-B</td>
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<td></td>
</tr>
<tr>
<td>Expressed Needs</td>
<td>8.52</td>
<td>4.40</td>
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<tr>
<td>Wanted Needs</td>
<td>10.24</td>
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<tr>
<td>Total Involvement</td>
<td>18.75</td>
<td>8.00</td>
</tr>
<tr>
<td>Total Balance</td>
<td>-1.81</td>
<td>4.30</td>
</tr>
<tr>
<td>BDI</td>
<td>7.99</td>
<td>6.85</td>
</tr>
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</table>
TABLE 2

Summary of Correlation and Linear Regression Analyses
Between Body Image and Other Test Variables (N=80)

<table>
<thead>
<tr>
<th>Variable</th>
<th>r</th>
<th>r²</th>
<th>p  &lt;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TSCS Scale</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Positive</td>
<td>.57</td>
<td>.32</td>
<td>.001*</td>
</tr>
<tr>
<td>Self Criticism</td>
<td>-.34</td>
<td>.11</td>
<td>.001*</td>
</tr>
<tr>
<td>Distribution</td>
<td>.25</td>
<td>.06</td>
<td>.01*</td>
</tr>
<tr>
<td>Personality Integration</td>
<td>-.03</td>
<td>.00</td>
<td>.39</td>
</tr>
<tr>
<td>General Maladjustment</td>
<td>.34</td>
<td>.12</td>
<td>.001*</td>
</tr>
<tr>
<td><strong>FIRO-B Scale</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expressed Needs</td>
<td>.09</td>
<td>.01</td>
<td>.20</td>
</tr>
<tr>
<td>Wanted Needs</td>
<td>.11</td>
<td>.01</td>
<td>.16</td>
</tr>
<tr>
<td>Total Involvement</td>
<td>.12</td>
<td>.01</td>
<td>.14</td>
</tr>
<tr>
<td>Total Balance</td>
<td>-.08</td>
<td>.01</td>
<td>.24</td>
</tr>
<tr>
<td>Beck Depression Inventory</td>
<td>-.47</td>
<td>.22</td>
<td>.001*</td>
</tr>
</tbody>
</table>

* = Significant at .05.
scores, 22% in BDI scores, 12% in TSCS GM scores, 11% in TSCS Self Criticism scores, 6% in the TSCS D scores, and 1% or less in the FIRO-B scores and the TSCS Personality Integration score.

Hypothesis #2 was tested with Multivariate Analyses of Variance (MANOVA's), Univariate Analyses of Variance (ANOVA's) and Duncan Multiple Range tests. Means and standard deviations of the 11 test variables for the newly diagnosed, early remission, and late remission groups (Groups 1, 2, 3) are presented in Table 3. Results of the MANOVA's are presented in Table 4. The initial MANOVA included all 11 test variables, and the resulting F (.91) was not significant (p < .05). It was suspected that redundant variables contributed method variance. Therefore, the four variables that contributed the greatest amount of variance (BC, TSCS Total Positive, FIRO-B Involvement, & BDI) were included in a second MANOVA. This resulted in one significant root (p < .015). A summary of the univariate ANOVA's is presented in Table 5. Those variables found to be significant (p < .05) included TSCS Self-Criticism, and three FIRO-B scales (Expressed Needs, Wanted Needs, and Grand Total Involvement). Duncan Multiple Range tests indicated that the self-criticism scores of Group 1 (newly diagnosed) and Group 2 (early remission) differed significantly (p < .05). Group 1 obtained the highest self-criticism scores, while Group 2
## TABLE 3

Means and Standard Deviations of Test Variables for Newly Diagnosed, Early Remission, and Late Remission Patients

<table>
<thead>
<tr>
<th>Variable</th>
<th>Newly Diagnosed</th>
<th>Early Remission</th>
<th>Late Remission</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>B-C</td>
<td>3.52</td>
<td>.48</td>
<td>3.63</td>
</tr>
<tr>
<td>TSCS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Positive</td>
<td>334.65</td>
<td>32.81</td>
<td>357.85</td>
</tr>
<tr>
<td>Self Criticism</td>
<td>35.50</td>
<td>5.61</td>
<td>29.35</td>
</tr>
<tr>
<td>Distribution</td>
<td>126.20</td>
<td>31.03</td>
<td>133.40</td>
</tr>
<tr>
<td>Personality Integ.</td>
<td>6.95</td>
<td>4.57</td>
<td>6.20</td>
</tr>
<tr>
<td>General Maladjustm.</td>
<td>89.25</td>
<td>12.11</td>
<td>94.95</td>
</tr>
<tr>
<td>FIRO-B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expressed Needs</td>
<td>6.15</td>
<td>4.10</td>
<td>9.35</td>
</tr>
<tr>
<td>Wanted Needs</td>
<td>8.51</td>
<td>4.12</td>
<td>11.30</td>
</tr>
<tr>
<td>Total Involvement</td>
<td>14.65</td>
<td>6.84</td>
<td>20.65</td>
</tr>
<tr>
<td>Total Balance</td>
<td>-2.75</td>
<td>4.34</td>
<td>-1.95</td>
</tr>
<tr>
<td>BDI</td>
<td>10.35</td>
<td>8.21</td>
<td>6.00</td>
</tr>
</tbody>
</table>
TABLE 4
Summary of Test Variable MANOVA's of Newly Diagnosed, Early Remission, and Late Remission Patients

<table>
<thead>
<tr>
<th>Variables</th>
<th>F</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eleven</td>
<td>.91</td>
<td>22, 94</td>
<td>.58</td>
</tr>
<tr>
<td>B-C TSCS (5 subscales)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FIRO-B (4 subscales)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Four</td>
<td>2.52</td>
<td>8, 108</td>
<td>.015*</td>
</tr>
<tr>
<td>B-C TSCS Total Positive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FIRO-B Involvement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDI</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* = Significant at .05.
TABLE 5

Summary of Test Variable Univariate ANOVA's
of Newly Diagnosed, Early Remission,
and Late Remission Patients

<table>
<thead>
<tr>
<th>Variable</th>
<th>F (2, 57 df)</th>
<th>MS</th>
<th>p</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>B-C</td>
<td>.47</td>
<td>13.21</td>
<td>.63</td>
<td></td>
</tr>
<tr>
<td>TSCS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Positive</td>
<td>1.68</td>
<td>2765.98</td>
<td>.20</td>
<td></td>
</tr>
<tr>
<td>Self Criticism</td>
<td>3.91</td>
<td>193.65</td>
<td>.03*</td>
<td></td>
</tr>
<tr>
<td>Distribution</td>
<td>.18</td>
<td>259.62</td>
<td>.83</td>
<td></td>
</tr>
<tr>
<td>Personality Integ.</td>
<td>.15</td>
<td>4.32</td>
<td>.86</td>
<td></td>
</tr>
<tr>
<td>General Maladjustm.</td>
<td>.71</td>
<td>109.27</td>
<td>.50</td>
<td></td>
</tr>
<tr>
<td>FIRO-B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expressed Needs</td>
<td>4.47</td>
<td>57.87</td>
<td>.02*</td>
<td></td>
</tr>
<tr>
<td>Wanted Needs</td>
<td>3.25</td>
<td>55.22</td>
<td>.05*</td>
<td></td>
</tr>
<tr>
<td>Total Involvement</td>
<td>5.38</td>
<td>223.35</td>
<td>.01*</td>
<td></td>
</tr>
<tr>
<td>Total Balance</td>
<td>.39</td>
<td>6.95</td>
<td>.68</td>
<td></td>
</tr>
<tr>
<td>BDI</td>
<td>2.15</td>
<td>104.62</td>
<td>.13</td>
<td></td>
</tr>
</tbody>
</table>

* = Significant at .05.
obtained the lowest. Group 2 also differed significantly from Groups 1 and 3 (late remission) on FIRO-B Expressed Needs, Wanted Needs, and Grand Total Involvement, by achieving higher mean scores indicative of a greater need for involvement with others. Although BC, TSCS Total Positive, and BDI univariate ANOVA's failed to differentiate the three groups, they were among the variables that contributed most of the variance in the initial MANOVA. Results indicate that some differentiation among newly diagnosed, early remission, and late remission patients can be made. Group 2 was most different from Groups 1 and 3. Variables from the General Information Questionnaire were also included in univariate ANOVA's. None of these variables differed significantly across the three groups. Of particular interest was conscious acknowledgement of fear of death. Late remission patients were not significantly less fearful than newly diagnosed or early remission patients in spite of a greater chance for survival due to passage of time with no recurrence.

Hypothesis #3 was tested by MANOVA's and univariate ANOVA's. Means and standard deviations of the eleven test scores of the psychological support group (Group 4) and the random matched sample taken from Groups 1-3 are presented in Table 6. Results of the MANOVA's are presented in Table 7. The initial eleven variable MANOVA was significant (p < .01). A second MANOVA including the
## TABLE 6

Means and Standard Deviations of Test Variables for Psychological Support and Matched Non-Psychological Support Groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>Psyc Support Mean</th>
<th>Psyc Support SD</th>
<th>Non-Psyc Support Mean</th>
<th>Non-Psyc Support SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-C</td>
<td>3.29</td>
<td>.50</td>
<td>3.49</td>
<td>.56</td>
</tr>
<tr>
<td>TSCS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Positive</td>
<td>343.00</td>
<td>37.26</td>
<td>353.75</td>
<td>36.26</td>
</tr>
<tr>
<td>Self Criticism</td>
<td>37.20</td>
<td>5.49</td>
<td>33.95</td>
<td>6.70</td>
</tr>
<tr>
<td>Distribution</td>
<td>118.05</td>
<td>25.38</td>
<td>127.45</td>
<td>42.77</td>
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<tr>
<td>Personality Integ.</td>
<td>10.95</td>
<td>3.07</td>
<td>7.25</td>
<td>4.37</td>
</tr>
<tr>
<td>General Maladjustm.</td>
<td>95.75</td>
<td>9.50</td>
<td>92.45</td>
<td>21.85</td>
</tr>
<tr>
<td>FIRO-B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expressed Needs</td>
<td>11.85</td>
<td>4.49</td>
<td>7.10</td>
<td>4.09</td>
</tr>
<tr>
<td>Wanted Needs</td>
<td>12.80</td>
<td>5.15</td>
<td>8.50</td>
<td>3.28</td>
</tr>
<tr>
<td>Total Involvement</td>
<td>24.60</td>
<td>8.37</td>
<td>15.60</td>
<td>6.28</td>
</tr>
<tr>
<td>Total Balance</td>
<td>-.95</td>
<td>4.70</td>
<td>-1.40</td>
<td>3.95</td>
</tr>
<tr>
<td>BDI</td>
<td>8.65</td>
<td>6.10</td>
<td>6.95</td>
<td>5.68</td>
</tr>
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</table>
TABLE 7
Summary of Test Variable MANOVA's of the Psychological Support and Matched Non-Psychological Support Groups

<table>
<thead>
<tr>
<th>Variables</th>
<th>F</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eleven</td>
<td>3.08</td>
<td>11, 28</td>
<td>.01*</td>
</tr>
<tr>
<td>B-C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TSCS (5 subscales)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FIRO-B (4 subscales)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Five</td>
<td>5.93</td>
<td>5, 34</td>
<td>.001*</td>
</tr>
<tr>
<td>B-C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TSCS Total Positive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TSCS Personality Integ.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FIRO-B Total Involvement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDI</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* = Significant at .05.
5 variables which contributed the most variance (BC, TSCS Total Positive, TSCS Personality Integration, FIRO-B Grand Total Involvement, and BDI) was computed and was found to be highly significant (p < .001). A summary of the univariate ANOVA's is presented in Table 8. Variables which were found to be significant were: TSCS Personality Integration (p < .004); FIRO-B Expressed Needs (p < .001); FIRO-B Wanted Needs (p < .003) and FIRO-B Grand Total Involvement (p < .001). A trend toward significance was also found for TSCS Self-Criticism (p < .10). The psychological support group patients scored higher on all of these significant scales. This supports the theoretical prediction that these patients have achieved a healthier level of adjustment. The alternative prediction that these patients might be more narcissistically preoccupied with illness is not supported. General Information Questionnaire ANOVA's revealed two additional differences: education (F = 7.30; p < .01) and need for affiliation with other cancer patients (F = 10.23, p < .003). The psychological support group had more education (college), and expressed a greater need to talk with other cancer patients. An Analysis of Covariance was completed in order to partial out the effect of education on significant test variables. Results indicated that the groups still differed significantly on the four variables as follows: Personality Integration (F = 6.35; p < .02);
### TABLE 8
Summary of Test Variable ANOVA's of the Psychological Support and Matched Non-Psychological Support Groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>F (1, 18 df)</th>
<th>MS</th>
<th>p  &lt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-C</td>
<td>1.34</td>
<td>38.02</td>
<td>.25</td>
</tr>
<tr>
<td>TSCS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Positive</td>
<td>.85</td>
<td>1155.66</td>
<td>.36</td>
</tr>
<tr>
<td>Self Criticism</td>
<td>2.81</td>
<td>105.62</td>
<td>.10+</td>
</tr>
<tr>
<td>Distribution</td>
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<td>883.60</td>
<td>.40</td>
</tr>
<tr>
<td>Personality Integ.</td>
<td>9.59</td>
<td>136.90</td>
<td>.004*</td>
</tr>
<tr>
<td>General Maladjustment</td>
<td>.38</td>
<td>108.89</td>
<td>.54</td>
</tr>
<tr>
<td>FIRO-B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expressed Needs</td>
<td>12.24</td>
<td>225.62</td>
<td>.001*</td>
</tr>
<tr>
<td>Wanted Needs</td>
<td>9.92</td>
<td>184.90</td>
<td>.003*</td>
</tr>
<tr>
<td>Total Involvement</td>
<td>14.79</td>
<td>809.99</td>
<td>.001*</td>
</tr>
<tr>
<td>Total Balance</td>
<td>.12</td>
<td>2.02</td>
<td>.74</td>
</tr>
<tr>
<td>BDI</td>
<td>.83</td>
<td>28.90</td>
<td>.37</td>
</tr>
</tbody>
</table>

* = Significant at .05.
+ = Trend -- .10.
FIRO-B Expressed Needs (F = 8.54; p < .01); FIRO-B Wanted Needs (F = 9.02; p < .01); and FIRO-B Grand Total Involvement (F = 11.63, p < .002).
CHAPTER IV
DISCUSSION

This study sought to investigate empirical support for several aspects of classical psychoanalytic theory of body and self image (Freud, 1927; Fenichel, 1945). According to this theory, a healthy body image necessarily precedes a healthy self-concept and the ability to invest energy outside the self. It was expected that cancer patients' body image scores would correlate significantly with their self image, interpersonal needs behavior, and depression scores. Further, it was assumed that cancer poses a constant threat to body image in addition to threat of death. It was suspected that the emotional trauma induced by such a threat might not be restricted to early disease stages. Therefore, it was expected that measures of psychological adjustment (body image, self image, interpersonal needs behavior, and depression) might not significantly differentiate newly diagnosed, early remission, and late remission patients. An additional question was raised concerning characteristics of cancer patients who voluntarily participate in available psychological support activities. That is, they could participate due to more disturbed preoccupation with disease, or because of a more healthy level of adjustment which allows them to invest energy in outside activities.
Hypothesis #1 regarding the predicted significant relationship between body image, self image, interpersonal needs behavior, and depression was partially supported. Correlations between Body-Cathexis scores and the following test variables were highly significant: total positive self esteem, definiteness of self-concept, self-criticism, general maladjustment, and depression. Of these, two were negative correlations. Individuals who were less critical of themselves and less depressed achieved higher Body-Cathexis scores. It should be noted that low self-criticism scores often result in an elevation of other positive measures (Fitts, 1965). Low self-criticism scores suggest defensiveness or a tendency to acknowledge only favorable characteristics, while high scores suggest pathological absence of defenses. The self-criticism mean for all 80 subjects (33.8) is comparable to the lower end of normal limits (27-48) reported by Fitts (1965). The total positive self esteem mean (344.6) is comparable to the norm mean of 345.5.

The Body-Cathexis scores ranged from 1.2 to 4.9 with a mean of 3.48. This mean is comparable to the mean reported by Jaskar and Reed (1963) for hospitalized female psychiatric patients ($\bar{X} = 3.40$), and lower than the mean reported for non-hospitalized females ($\bar{X} = 3.71$). The BC mean is also comparable to the overall mean achieved by medical patients ($\bar{X} = 3.45$) in Schwab and Harmeling's
(1967) study, but slightly higher than the mean obtained by females ($\bar{x} = 3.27$) in their sample.

The Personality Integration Scale from the TSCS did not correlate significantly with Body-Cathexis scores. A small non-significant negative correlation was obtained rather than a significant positive one. A possible explanation is defensiveness, since in order to obtain a high score on this scale it is necessary to acknowledge some negative characteristics. Mean scores for both personality integration and general maladjustment were lower than means reported by Fitts (1965).

The expected inverse relationship between BC and depression was supported. However, the Beck Depression Inventory mean score of 7.99 falls within the non-depressed range (<10) reported by Beck et al. (1961). Scores ranged from 0 to 35 with a standard deviation of 6.85. Some patients denied having even slight symptoms of depression, while others scored within the moderately to severely depressed ranges. However, the majority did deny depression. This was surprising since during the process of gathering data many of the patients cried and expressed the feeling that "nothing would ever be the same again." The investigator expected the BDI mean to at least reach the mild depression level.

None of the FIRO-B scales correlated significantly with Body-Cathexis. An interesting observation is that
the cancer patients achieved low scores in comparison to the various norm group means reported by Schutz (1967). For example, Schutz reported total involvement means ranging from 19.9 for creative artists to 36.4 for traveling salesmen. The overall mean score in this study was 18.7. Low scores suggest a tendency to deny interpersonal needs for affection, inclusion, and control behaviors expressed toward and wanted from others. Perhaps acknowledgement of these needs was viewed as acknowledgement of weakness. Such limited interpersonal involvement constitutes introversion which may be manifested by withdrawal. Further, the mean total balance score is a negative value, which indicates that individuals want more affection, inclusion, and control behaviors from others than they express toward others. The low total involvement scores coupled with a negative total balance score can be interpreted as a tendency to deny needs with a simultaneous expectation that others will perceive needs and initiate behaviors aimed at fulfilling them. Such patterns of interaction can undoubtedly lead to disturbed interpersonal relationships. This is especially significant since investigators have correlated longevity in cancer patients with ability to maintain mutually responsive relationships (Weisman & Worden, 1975).

In summary, data supported theoretically predicted relationships between body image, self image, and
depression. The BC scores were indicative of level of self esteem and depression. However, no significant linear or curvilinear relationship was found between BC and the FIRO-B. Data further suggested the existence of denial as manifested by low self-criticism, personality integration, interpersonal needs behavior, and depression scores. This supports observations of other investigators who have reported the existence of denial (Bahnson & Bahnson, 1969; Butler, 1954; Polivy, 1977); concealment of emotional difficulties (Blumberg et al., 1954; Kissen et al., 1969); and a facade covering pathology (Orbach & Tallent, 1965).

Hypothesis #2 raised a question regarding duration of the traumatic disruption imposed by cancer. The stages compared in this study included newly diagnosed, early remission (1-2 years with no recurrence) and late remission (5-26 years with no recurrence). These three groups included only women with cervical cancer. The mean age was 48 and the majority were married and had children. No significant demographic differences were found. In fact, none of the variables from the General Information Questionnaire were significant. Of particular interest was the question concerning fear of death. Forty-five percent of the newly diagnosed and late remission patients acknowledged fear, while 20% of the early remission patients acknowledged fear. Late remission patients
acknowledged fear of death just as readily as the newly diagnosed patients. Therefore, in this sample passage of time with no recurrence did not significantly reduce reported fear of death.

When the three groups were compared on patterns of scores of the eleven test variables, results of the MANOVA were not significant. The groups could not be differentiated. However, a second MANOVA which included only the four variables that had contributed the most variance in the original MANOVA was significant (p < .015). Univariate ANOVA's indicated that the following variables were significant: TSCS self-criticism, FIRO-B expressed needs, wanted needs, and total involvement. Further analysis with Duncan Multiple Range tests indicated that early remission patients differed most from newly diagnosed and late remission patients. Early remission patients were significantly less self-critical than newly diagnosed patients. Early remission patients were also less self-critical than late remission patients, but this difference was not statistically significant. The FIRO-B Scale means of early remission patients differed significantly from means achieved by both newly diagnosed and late remission patients. In addition to being less critical of themselves, early remission patients had higher interpersonal needs scores. Generally speaking, early remission patients achieved higher positive and lower negative scores on the
test scales. It is possible that greater defensiveness favorably altered the scales. In fact, this greater defensiveness may represent a stage patients experience a year or so after treatment has been completed. Perhaps a temporary feeling of greater optimism and willingness to become invested in life occurs. The data further suggests that denial may gradually break down over time. This would explain why late remission patients obtained scores more similar to newly diagnosed than early remission patients. A higher level of defensiveness is also supported by the fact that only 20% of the early remission patients acknowledged fear of death. An additional observation is that 55% of the early remission patients acknowledged a need to interact with other cancer patients, in contrast to 80% of the newly diagnosed and 65% of the late remission patients. Weisman and Worden (1976) described an "existential plight period" during which their patients appeared to reevaluate life issues. These authors stated that this period lasts approximately 100 days. Results of this study suggest that this period may be followed by one of apparent adjustment with the establishment of a defensive system. Polivy (1977) also pointed out that emotional effects may not surface until a year after discovery of cancer. This study suggests that denial may break down over time, and that this may occur later than one to two years after diagnosis in some cases. It should be pointed
out that defenses such as denial can serve a useful function, i.e. allowing some restoration of psychological equilibrium. However, if behavioral manifestations include withdrawal, isolation, and loss of interest in such basic interpersonal needs as affection, defenses are no longer adaptive.

Results also support findings reported by other investigators. Bernay (1976) observed that anxiety and depression were not proportionate to severity of illness. This investigator also reported a tendency for non-counseled patients to become more anxious over time. Schwab and Harmeling (1968) also failed to find a correlation between duration of illness and body image scores, and Fisher and Cleveland (1956) found no significant differences between Rorschach penetration scores of one and ten year colostomy patients. In the present study survival five or more years was not sufficient to produce significant improvement on the measures of psychological adjustment employed.

Hypothesis #3 was concerned with comparing the level of psychological adjustment of cancer patients who were voluntarily participating in psychological support groups with that of a random matched sample of patients who were involved in medical treatment only. This sample was drawn from Groups 1-3. This study sought to investigate whether these support group patients had a more disturbed preoccu-
pation with disease or a healthier level of adjustment. Test measures indicated that the psychological support group participants had a healthier level of adjustment. Results of the eleven variable MANOVA were highly significant. A second MANOVA which included the five variables that had contributed the most variance in the original MANOVA (BC, TSCS total positive, TSCS personality integration, FIRO-B involvement, and BDI) was also highly significant. Univariate ANOVA's revealed that the support group obtained significantly higher personality integration scores, as well as higher FIRO-B expressed needs, wanted needs, and total involvement. A trend toward significantly higher self-criticism scores was also noted. Participation in the groups also supports the validity of their higher interpersonal involvement scores. They also acknowledged a significantly greater need to interact with other cancer patients. Thus, there are two non-test variable indicators of greater interpersonal involvement. Psychological support group participants also had a significantly higher educational level. However, significantly healthier test scores remained after education was partialled out. Higher level of education could not account for the healthier test scores. It is true that this analysis did not compare two groups of individuals who had either declined or accepted a formal offer to join support groups. However, it is assumed that all of the patients in this study were
aware that such groups do exist and that they are open to anyone without cost. Some patients seek such services and some do not. The results of this analysis support the observation of Kolb (1975) that patients who cope better do not hesitate to use other resources for help or ask for more information or better treatment. It should be noted that the support group included various types of cancer, including ones that have a less favorable prognosis than cervical cancer. Yet, the more positive scores were still obtained.

This study indicates that distress is not necessarily limited to early stages of treatment and the early follow-up period. Results raise important questions concerning services offered for cancer patients, particularly if the psychologically healthier seek support services and the more disturbed do not. As Garner (1966) stated: "the more distressed may need to be actively sought out." Yet, if patients deny needs, health care professionals may easily assume that there are no special needs or concerns. At the same time, patients may expect professionals to perceive needs and attempt to fill them. This kind of interaction can be frustrating to both patients and professionals, and does nothing to alleviate the problem. Certain approaches may be more effective than others. For example, if patients are questioned directly, they are likely to deny symptoms. Perhaps a more indirect method of inquiry
would be more effective. An example of an indirect approach would be: "Patients often feel... Do you ever feel this way?" This is in direct contrast to the more common: "How do you feel?" or "Are you depressed?" The most effective tool may be the use of didactic groups, i.e. referring patients to "workshops" in which they may "learn" medical and psychological information about cancer. If common needs and concerns are presented, patients may feel less defensive about their own individual experiences. This would also bring them into contact with other cancer patients, and may encourage communication.

During the course of this investigation, some healthcare professionals shared their dismay. They reported that some patients quickly reply "fine" when feelings are explored. This is sometimes followed by a call from a family member who typically states concern about the patient's well being. Mechanisms of denial and withdrawal can be responsible for such behaviors.

In summary, the theoretically predicted relationship between body image, self image, and depression was supported. Body image did reflect level of self esteem and depression. Results failed to support either a linear or curvilinear relationship between body image and interpersonal needs behavior. Data further suggested the existence of denial which may have lowered indices of pathology. Newly diagnosed, early remission, and late
remission patients could be differentiated by some of the test variables. Early remission patients differed most from newly diagnosed and late remission patients, by being less self-critical and obtaining higher interpersonal needs behavior scores. This difference may signify the establishment of a defensive system which allows for expression of greater optimism, but which may break down over time. Five years or more without recurrence was not sufficient to effect more positive scores on psychological measures employed, which suggests that distress is not limited to early treatment and follow-up periods. Finally, patients who were voluntarily participating in psychological support groups did achieve scores indicative of a healthier level of adjustment than a matched random sample of patients involved in medical treatment only. The psychological support group patients also more readily acknowledged a need for interaction with other patients, and were found to be more highly educated. These findings support implications of psychoanalytic theory regarding emotional trauma of physical disease, as well as observations of other investigators who have studied psychological effects in cancer patients.
CHAPTER V
CONCLUSIONS

Results indicate that body image is an important construct, which is significantly related to self image and depression (Freud, 1927; Fenichel, 1945). Cancer patients, like other medical patients, do give evidence of body image disturbance. This is not surprising since body image is threatened by the disease itself, side effects of treatment, as well as possibility of recurrence. As psychoanalytic theory would predict, such threat may be manifested symptomatically by denial and withdrawal from others, as well as depression. Survival five or more years does not necessarily relieve these symptoms of emotional distress, nor fear of death. Evidence also suggests that patients may experience a period of relief during the early remission period following the establishment of a defensive system. However, as time goes on the reality of medical follow-up and health concern continues. At this point patients may once again begin to experience distress more comparable to that experienced during early treatment phases. It cannot be assumed that patients in the late remission period are less vulnerable to the emotional stresses of cancer.

Some cancer patients seek support services, while others do not. Psychological support group participants
in this study gave evidence of a healthier level of adjustment, rather than a more disturbed preoccupation with disease. It appears that the healthier and more educated are more likely to participate in available services. If denial and withdrawal are characteristic, the most commonly offered services may not reach the more distressed. That is, the majority of patients are not likely to approach individual counselors or join groups. A more indirect didactic approach may be a more effective method of delivering medical and psychological information.

Future research might continue to explore adjustment processes in remission patients, especially the early and late periods. Perhaps the most ideal design would be a longitudinal study. Since denial may obscure test scores, a better design would also include means of assessing behavioral correlates of test variables, i.e. experimental task performance, information concerning actual participation in outside activities, ratings from family members. In regard to the effect of psychological support services, a pre-post design may further clarify the healthier level of adjustment observed in this study. Finally, significant information may be obtained by focusing on patients who score in the extreme ranges of test measures such as the ones employed in this study.
REFERENCES


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LeShan, L. Psychological stress as factors in the development of malignant disease: a critical review. Journal of the National Cancer Institute, 1959, 22, 1.

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APPENDICES
APPENDIX A

GENERAL INFORMATION QUESTIONNAIRE

Please give the following information about yourself:

_________Age  _____Sex

Marital Status:

_____Single  _____Married  _____Separated  _____Divorced  _____Widowed

Do you have children?  _____Yes  _____No  If yes, how many?  _____

Educational Level:  _____Number of years completed

Occupation:

__________________________________________________________

Are you currently working?  _____Yes  _____No

Religion:  _____Protestant  _____Catholic  _____Jewish  _____Other

Type of Cancer:  ________________________________________________

Date of Diagnosis:  ____________________________________________

Kind of medical treatment received or currently receiving:  (Check all that apply)

_____Surgery  _____Radiation Therapy  _____Chemotherapy

Prior to the cancer diagnosis, what physical complaint or complaints did you see your physician for most frequently? Please list the medical problems and indicate approximately how many times it was necessary to see a physician about them.

Kind of mental health services currently receiving:

_____individual psychotherapy  _____group psychotherapy

_____religious counseling  _____other

If other, please specify:  _________________________________________

Do you sometimes feel that participation in activities which involve individual or group interaction with other cancer patients might be helpful?

_____Yes  _____No

Are you afraid of death?  _____Yes  _____No
APPENDIX B

BODY CATHEXIS SCALE

Instructions

On the following pages are listed a number of things characteristic of yourself or related to you. You are asked to indicate which things you are satisfied with exactly as they are, which things you worry about and would like to change if it were possible, and which things you have no feelings about one way or the other.

Consider each item listed below and circle the number which best represents your feelings according to the following scale:

1. Have strong feelings and wish change could somehow be made.
2. Don't like, but can put up with.
3. Have no particular feelings one way or the other.
5. Consider myself fortunate.

Please consider each item separately before circling the number which best describes your feelings about it, and do not write your name on any of the pages.

<table>
<thead>
<tr>
<th>Strong feelings and wish change could be made</th>
<th>Don't like, but can put up with</th>
<th>No particular feelings on it</th>
<th>Satisfied</th>
<th>Consider myself fortunate</th>
</tr>
</thead>
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<tr>
<td>HAIR</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>FACIAL COMPLEXION</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>APPETITE</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>HANDS</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>DISTRIBUTION OF HAIR OVER BODY</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>NOSE</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>FINGERS</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>ELIMINATION</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>WRISTS</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td>BREATHING</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td>WAIST</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>ENERGY LEVEL</td>
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<td>2</td>
<td>3</td>
<td>4</td>
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<td>BACK</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td>EARS</td>
<td>1</td>
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<td>4</td>
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<td>CHIN</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<td>EXERCISE</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<td>Aspect</td>
<td>Strong feelings and wish change could be made</td>
<td>Don't like, but can put up with</td>
<td>No particular feelings on it</td>
<td>Satisfied</td>
</tr>
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<td>-----------------------------</td>
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<td>3</td>
<td>4</td>
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<td>Neck</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Shape of head</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td>Body build</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td>Profile</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td>Height</td>
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<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Age</td>
<td>1</td>
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<td>3</td>
<td>4</td>
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<td>Width of shoulders</td>
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<td>2</td>
<td>3</td>
<td>4</td>
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<td>Arms</td>
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<td>Chest</td>
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<td>4</td>
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<tr>
<td>Eyes</td>
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<td>2</td>
<td>3</td>
<td>4</td>
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<td>Hips</td>
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<td>3</td>
<td>4</td>
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<tr>
<td>Skin texture</td>
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<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Lips</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Legs</td>
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<td>2</td>
<td>3</td>
<td>4</td>
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<td>Teeth</td>
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<td>4</td>
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<td>4</td>
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<tr>
<td>Feet</td>
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<td>4</td>
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<td>Sleep</td>
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<td>3</td>
<td>4</td>
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<tr>
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<td>Health</td>
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<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Sex activities</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Knees</td>
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<td>2</td>
<td>3</td>
<td>4</td>
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<td>4</td>
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<td>Face</td>
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<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Weight</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Sex (male or female)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<td>Back view of head</td>
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<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Trunk</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
APPENDIX C

TENNESSEE SELF CONCEPT SCALE

The statements listed below are to help you describe yourself as you see yourself. Please respond to them as if you were describing yourself to yourself. Please do not omit any item. Put a circle around the response number you have chosen for each statement according to the following scale:

1. Completely false
2. Mostly false
3. Partly false and partly true
4. Mostly true
5. Completely true

I have a healthy body. 1 2 3 4 5
I am an attractive person. 1 2 3 4 5
I consider myself a sloppy person. 1 2 3 4 5
I am a decent sort of person. 1 2 3 4 5
I am an honest person. 1 2 3 4 5
I am a bad person. 1 2 3 4 5
I am a cheerful person. 1 2 3 4 5
I am a calm and easy going person. 1 2 3 4 5
I am a nobody. 1 2 3 4 5
I have a family that would always help me in any kind of trouble. 1 2 3 4 5
I am a member of a happy family. 1 2 3 4 5
My friends have no confidence in me. 1 2 3 4 5
I am a friendly person. 1 2 3 4 5
I am a popular person. 1 2 3 4 5
I am popular with men. 1 2 3 4 5
I am not interested in what other people do. 1 2 3 4 5
1. Completely false
2. Mostly false
3. Partly false and partly true
4. Mostly true
5. Completely true

I do not always tell the truth. 1 2 3 4 5
I get angry sometimes. 1 2 3 4 5
I like to look nice and neat all the time. 1 2 3 4 5
I am full of aches and pains. 1 2 3 4 5
I am a sick person. 1 2 3 4 5
I am a religious person. 1 2 3 4 5
I am a moral failure. 1 2 3 4 5
I am a morally weak person. 1 2 3 4 5
I have a lot of self-control. 1 2 3 4 5
I am a hateful person. 1 2 3 4 5
I am losing my mind. 1 2 3 4 5
I am an important person to my friends and family. 1 2 3 4 5
I am not loved by my family. 1 2 3 4 5
I feel that my family doesn't trust me. 1 2 3 4 5
I am popular with women. 1 2 3 4 5
I am mad at the whole world. 1 2 3 4 5
I am hard to be friendly with. 1 2 3 4 5
Once in a while I think of things too bad to talk about. 1 2 3 4 5
Sometimes, when I am not feeling well, I am cross. 1 2 3 4 5
I am neither too fat nor too thin. 1 2 3 4 5
I like my looks just the way they are. 1 2 3 4 5
<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would like to change some parts of my body.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I am satisfied with my moral behavior.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I am satisfied with my relationship to God.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I ought to go to church more.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I am satisfied to be just what I am.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I am just as nice as I should be.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I despise myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I am satisfied with my family relationships.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I understand my family as well as I should.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I should trust my family more.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I am as sociable as I want to be.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I try to please others, but I don't overdo it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I am no good at all from a social standpoint.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I do not like everyone I know.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Once in a while, I laugh at a dirty joke.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I am neither too tall nor too short.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I don't feel as well as I should.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I should have more sex appeal.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
1. Completely false
2. Mostly false
3. Partly false and partly true
4. Mostly true
5. Completely true

I am as religious as I want to be. 1 2 3 4 5
I wish I could be more trustworthy. 1 2 3 4 5
I shouldn't tell so many lies. 1 2 3 4 5
I am as smart as I want to be. 1 2 3 4 5
I am not the person I would like to be. 1 2 3 4 5
I wish I didn't give up as easily as I do. 1 2 3 4 5
I treat my parents as well as I should. (Use past tense if parents are not living.) 1 2 3 4 5
I am too sensitive to things my family say. 1 2 3 4 5
I should love my family more. 1 2 3 4 5
I am satisfied with the way I treat people. 1 2 3 4 5
I should be more polite to others. 1 2 3 4 5
I ought to get along better with other people. 1 2 3 4 5
I gossip a little at times. 1 2 3 4 5
At times I feel like swearing. 1 2 3 4 5
I take good care of myself physically. 1 2 3 4 5
I try to be careful about my appearance. 1 2 3 4 5
I often act like I am "all thumbs". 1 2 3 4 5
I am true to my religion in my everyday life. 1 2 3 4 5
1. Completely false
2. Mostly false
3. Partly false and partly true
4. Mostly true
5. Completely true

I try to change when I know I'm doing things that are wrong. 1 2 3 4 5

I sometimes do very bad things. 1 2 3 4 5

I can always take care of myself in any situation. 1 2 3 4 5

I take the blame for things without getting mad. 1 2 3 4 5

I do things without thinking about them first. 1 2 3 4 5

I try to play fair with my friends and family. 1 2 3 4 5

I take a real interest in my family. 1 2 3 4 5

I give in to my parents. (Use past tense if not living.) 1 2 3 4 5

I try to understand the other fellow's point of view. 1 2 3 4 5

I get along well with other people. 1 2 3 4 5

I do not forgive others easily. 1 2 3 4 5

I would rather win than lose in a game. 1 2 3 4 5

I feel good most of the time. 1 2 3 4 5

I do poorly in sports and games. 1 2 3 4 5

I am a poor sleeper. 1 2 3 4 5

I do what is right most of the time. 1 2 3 4 5

I sometimes use unfair means to get ahead. 1 2 3 4 5

I have trouble doing the things that are right. 1 2 3 4 5
1. Completely false
2. Mostly false
3. Partly false and partly true
4. Mostly true
5. Completely true

I solve my problems quite easily. 1 2 3 4 5
I change my mind a lot. 1 2 3 4 5
I try to run away from my problems. 1 2 3 4 5
I do my share of work at home. 1 2 3 4 5
I quarrel with my family. 1 2 3 4 5
I do not act like my family thinks I should. 1 2 3 4 5
I see good points in all the people I meet. 1 2 3 4 5
I do not feel at ease with other people. 1 2 3 4 5
I find it hard to talk with strangers. 1 2 3 4 5
Once in a while I put off until tomorrow what I ought to do today. 1 2 3 4 5
APPENDIX D

THE FIRO-B SCALE

1. I try to be with people.
   never rarely occasionally sometimes often usually

2. I let other people decide what to do.
   never rarely occasionally sometimes often usually

3. I join social groups.
   never rarely occasionally sometimes often usually

4. I try to have close relationships with people.
   never rarely occasionally sometimes often usually

5. I tend to join social organizations when I have an opportunity.
   never rarely occasionally sometimes often usually

6. I let other people strongly influence my actions.
   never rarely occasionally sometimes often usually

7. I try to be included in informal social activities.
   never rarely occasionally sometimes often usually

8. I try to have close, personal relationships with people.
   never rarely occasionally sometimes often usually

9. I try to include other people in my plans.
   never rarely occasionally sometimes often usually

10. I let other people control my actions.
    never rarely occasionally sometimes often usually

11. I try to have people around me.
    never rarely occasionally sometimes often usually

12. I try to get close and personal with people.
    never rarely occasionally sometimes often usually

13. When people are doing things together I tend to join them.
    never rarely occasionally sometimes often usually

    never rarely occasionally sometimes often usually
15. I try to avoid being alone.
never  rarely  occasionally  sometimes  often  usually
16. I try to participate in group activities.
never  rarely  occasionally  sometimes  often  usually
17. I try to be friendly to people.
nobody  one or two people  a few people  some people  many people  most people
18. I let other people decide what to do.
nobody  one or two people  a few people  some people  many people  most people
19. My personal relations with people are cool and distant.
nobody  one or two people  a few people  some people  many people  most people
20. I let other people take charge of things.
nobody  one or two people  a few people  some people  many people  most people
21. I try to have close relationships with people.
nobody  one or two people  a few people  some people  many people  most people
22. I let other people strongly influence my actions.
nobody  one or two people  a few people  some people  many people  most people
23. I try to get close and personal with people.
nobody  one or two people  a few people  some people  many people  most people
24. I let other people control my actions.
nobody  one or two people  a few people  some people  many people  most people
25. I act cool and distant with people.
nobody  one or two people  a few people  some people  many people  most people
26. I am easily led by people.
nobody  one or two people  a few people  some people  many people  most people
27. I try to have close, personal relationships with people.
nobody  one or two people  a few people  some people  many people  most people
28. I like people to invite me to things.
nobody  one or two people  a few people  some people  many people  most people
29. I like people to act close and personal with me.
nobody  one or two people  a few people  some people  many people  most people
30. I try to influence strongly other people's actions.
nobody  one or two people  a few people  some people  many people  most people
31. I like people to invite me to join in their activities.
nobody  one or two people  a few people  some people  many people  most people
32. I like people to act close toward me.
nobody  one or two people  a few people  some people  many people  most people
33. I try to take charge of things when I am with people.
   nobody one or two people a few people some people many people most people
34. I like people to include me in their activities.
   nobody one or two people a few people some people many people most people
35. I like people to act cool and distant toward me.
   nobody one or two people a few people some people many people most people
36. I try to have other people do things the way I want them done.
   nobody one or two people a few people some people many people most people
37. I like people to ask me to participate in their discussions.
   nobody one or two people a few people some people many people most people
38. I like people to act friendly toward me.
   nobody one or two people a few people some people many people most people
39. I like people to invite me to participate in their activities.
   nobody one or two people a few people some people many people most people
40. I like people to act distant toward me.
   nobody one or two people a few people some people many people most people
41. I try to be the dominant person when I am with people.
   never rarely occasionally sometimes often usually
42. I like people to invite me to things.
   never rarely occasionally sometimes often usually
43. I like people to act close toward me.
   never rarely occasionally sometimes often usually
44. I try to have other people do things I want done.
   never rarely occasionally sometimes often usually
45. I like people to invite me to join their activities.
   never rarely occasionally sometimes often usually
46. I like people to act cool and distant toward me.
   never rarely occasionally sometimes often usually
47. I try to influence strongly other people's actions.
   never rarely occasionally sometimes often usually
48. I like people to include me in their activities.
   never rarely occasionally sometimes often usually
49. I like people to act close and personal with me.
   never rarely occasionally sometimes often usually
50. I try to take charge of things when I'm with people.
   never rarely occasionally sometimes often usually
51. I like people to invite me to participate in their activities.
   never rarely occasionally sometimes often usually
52. I like people to act distant toward me.
   never rarely occasionally sometimes often usually
53. I try to have other people do things the way I want them done.
   never rarely occasionally sometimes often usually
54. I take charge of things when I'm with people.
   never rarely occasionally sometimes often usually
APPENDIX E

BECK DEPRESSION INVENTORY

Choose one statement for each item.

A. 1. I do not feel sad.
2. I feel blue or sad.
3. I am blue or sad all the time and I can't snap out of it.
4. I am so sad or unhappy that it is very painful.
5. I am so sad or unhappy that I can't stand it.

B. 1. I am not particularly pessimistic or discouraged about the future.
2. I feel discouraged about the future.
3. I feel I have nothing to look forward to.
4. I feel that I won't ever get over my troubles.
5. I feel that the future is hopeless and that things cannot improve.

C. 1. I do not feel like a failure.
2. I feel I have failed more than the average person.
3. I feel I have accomplished very little that is worthwhile or that means anything.
4. As I look back on my life all I can see is a lot of failures.
5. I feel I am a complete failure as a person.

D. 1. I am not particularly dissatisfied.
2. I feel bored most of the time.
3. I don't enjoy things the way I used to.
4. I don't get satisfaction out of anything any more.
5. I am dissatisfied with everything.

E. 1. I don't feel particularly guilty.
2. I feel bad or unworthy a good part of the time.
3. I feel quite guilty.
4. I feel bad or unworthy practically all the time now.
5. I feel as though I am very bad or worthless.

F. 1. I don't feel I am being punished.
2. I have a feeling that something bad may happen to me.
3. I feel I am being punished or will be punished.
4. I feel I deserve to be punished.
5. I want to be punished.
G. 1. I don't feel disappointed in myself.
   2. I am disappointed in myself.
   3. I don't like myself.
   4. I am disgusted with myself.

H. 1. I don't feel I am any worse than anybody else.
   2. I am very critical of myself for my weaknesses or mistakes.
   3. I blame myself for everything that goes wrong.
   4. I feel I have many bad faults.

I. 1. I don't have any thoughts of harming myself.
   2. I have thoughts of harming myself but I would not carry them out.
   3. I feel I would be better off dead.
   4. I have definite plans about committing suicide.
   5. I feel my family would be better off if I were dead.
   6. I would kill myself if I could.

J. 1. I don't cry any more than usual.
   2. I cry more now than I used to.
   3. I cry all the time now. I can't stop it.
   4. I used to be able to cry but now I can't cry at all even though I want to.

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

L. 1. I have not lost interest in other people.
   2. I am less interested in other people now than I used to be.
   3. I have lost most of my interest in other people and have little feeling for them.
   4. I have lost all my interest in other people and don't care about them at all.

M. 1. I make decisions about as well as ever.
   2. I am less sure of myself now and try to put off making decisions.
   3. I can't make decisions any more without help.
   4. I can't make any decisions at all any more.
N. 1. I don't feel I look any worse than I used to.
   2. I am worried that I am looking old or unattractive.
   3. I feel that there are permanent changes in my appearance and they make me look unattractive.
   4. I feel that I am ugly or repulsive looking.

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

P. 1. I can sleep as well as usual.
   2. I wake up more tired in the morning than I used to.
   3. I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
   4. I wake up early every day and can't get more than 5 hours sleep.

Q. 1. I don't get any more tired than usual.
   2. I get tired more easily than I used to.
   3. I get tired from doing anything.
   4. I get too tired to do anything.

R. 1. My appetite is no worse than usual.
   2. My appetite is not as good as it used to be.
   3. My appetite is much worse now.
   4. I have no appetite at all any more.

S. 1. I haven't lost much weight, if any, lately.
   2. I have lost more than 5 pounds.
   3. I have lost more than 10 pounds.
   4. I have lost more than 15 pounds.

T. 1. I am no more concerned about my health than usual.
   2. I am concerned about aches and pains or upset stomach or constipation or other unpleasant feelings in my body.
   3. I am so concerned with how I feel or what I feel that it's hard to think of much else.
   4. I am completely absorbed in what I feel.

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

Subject Consent for Participation in an Investigation of Cancer's Impact on Living

You are invited to participate in a study of how cancer affects the lives of individuals. You were selected as a possible participant because you are either currently undergoing treatment or have had treatment for cancer in the past.

If you decide to participate, you will be asked to privately answer a general information questionnaire and four brief paper and pencil personality measures. This will require that you schedule one appointment with the investigator which should take approximately one and a half hours of your time. Some people occasionally find it difficult to answer questions concerning their attitudes about themselves and others. Other than this possible slight change in your level of anxiety, no other risks are expected. We cannot and do not guarantee that you will receive any benefits from this study, other than the possible satisfaction you may personally derive from participation in research aimed at achieving a better understanding of cancer's effects on living.

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission. You will not be required to identify yourself on any of the information you provide. If you give us your permission by signing this document, we plan to disclose conclusions of the study to the public through professional publication. You may also request that a summary of the conclusions be made available to you when the study is concluded.

Your decision whether or not to participate will not prejudice your future relations with the University of Texas Health Science Center or the Cancer Therapy and Research Center. Your decision will also not affect your medical treatment in any way. If you decide to participate, you are free to withdraw your consent at any time without prejudice.

If you have any questions, we expect you to ask us. Should you have additional questions later, you may reach Sandra Brignac, the psychology resident who is the primary investigator, by calling the UTHSC Counseling Service at 691-6951 or the Counselor's Office of the Cancer Therapy and Research Center at 690-1111.

You will be given a copy of this form to keep.

YOU ARE MAKING A DECISION WHETHER OR NOT TO PARTICIPATE. YOUR SIGNATURE INDICATES THAT YOU HAVE DECIDED TO PARTICIPATE HAVING READ THE ABOVE INFORMATION.

Date

Signature

Signature of Witness  Signature of Investigator
### APPENDIX G

**PEARSON PRODUCT-MOMENT CORRELATIONS AMONG THE ELEVEN TEST VARIABLES (N=80)**

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*__ = Significant at .05.*
VITA

Sandra Brignac Durdin was born in Ville Platte, Louisiana on January 9, 1951. She attended Edward Douglas White Catholic High School in Thibodaux, Louisiana and was graduated in May, 1969. She received her B.A. degree with a major in Psychology in May, 1973, and her M.Ed. in Psychology and Guidance in May, 1974 from Nicholls State University, Thibodaux, Louisiana. In December, 1976, she received her M.A. in Clinical Psychology from Louisiana State University. She is a candidate for the Ph.D. degree from Louisiana State University with a major in Clinical Psychology and a minor in Behavioral Neurology Psychology to be awarded August, 1980. Currently, she is a second year intern at the University of Texas Health Science Center in San Antonio, Texas.
Candidate: Sandra Brignac Durdin

Major Field: Psychology

Title of Thesis: Cancer's Impact on Living: A Psychoanalytic Study of Psychological Effects in Newly Diagnosed, Early Remission, and Late Remission Outpatients

Approved:

[Signatures]

Major Professor and Chairman
James D. Fraynham
Dean of the Graduate School

EXAMINING COMMITTEE:

[Signatures]

Donald D. Williamson

Date of Examination:

June 20, 1980