To the Graduate Council:

I am submitting herewith a dissertation written by Gayle S. Garrison entitled "A Phenomenological Study of the Experience and Expression of Anger Among Women with Cardiovascular Disease and Breast Cancer." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy with a major in Psychology.

Leonard Handler, Major Professor

We have read this dissertation
and recommend its acceptance:

Accepted for the Council:

Associate Vice Chancellor
and Dean of The Graduate School

A PHENOMENOLOGICAL STUDY OF THE EXPERIENCE AND EXPRESSION OF ANGER AMONG WOMEN WITH CARDIOVASCULAR DISEASE AND BREAST CANCER

A Dissertation

Presented for the

Doctor of Philosophy

Degree

The University of Tennessee, Knoxville

Gayle S. Garrison

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DEDICATION

I would like to dedicate this dissertation to my parents, who gave me life, and to my children, who have enriched it. To my mother, Louise Cash Stubbs, who taught me to love learning, to pursue my dreams, and to be strong. To my father, William Lollie Stubbs, Jr., who taught me the meaning of commitment, determination, and persistence. To Pat, Webb III, Greg, Ben, and Paul Garrison, whose inquiring minds and energetic spirits both challenge and continually inspire me.

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ABSTRACT

This study was designed to explore the relationship between the emotion of anger and physical illness among women with cardiovascular disease and breast cancer using a phenomenological approach. Participants for the study included 10 women with cardiovascular disease and 10 women with breast cancer. The women in this study ranged in age from 44 to 75 years of age, and the time that had elapsed since diagnosis ranged from 7 months to 31 years. Participants were interviewed in-depth about their experience of anger. Each was asked to respond to the following question: "Please think of some times when you have been angry and tell me about one or two of those times in as much detail as possible."

Three major themes and eight subthemes emerged from the phenomenological analysis: Theme I: Having A Negative Feeling, which was composed of two subthemes, The Bodily Experience of Anger and Feeling Hurt and Resentful; Theme II: Feeling in Control/ Feeling Helpless, which was composed of three subthemes, Helplessness, The Desire to Control, and Trying to Take Control; and Theme III: Taking Action, which was composed of three subhtemes, Doing, Not Doing, and Undoing.

For women with cardiovascular disease, anger is an immediate negative feeling of nervousness and shakiness, which is experienced as hot, explosive, consuming, helpless, and out of control, and which requires a struggle to control. It usually includes a sense of helplessness, negative thoughts about others, a desire for revenge, which motivates them to make decisions about how to express their anger,

to take action, or to defuse their anger in another way. When they are angry, they often leave the scene in order to maintain their composure and do not express their anger openly. This leaves them with unresolved anger, which manifests itself through a suspicious attitude, continuing hostility, and behavior which alienates them from others. They often express their anger verbally, sometimes in a loud and explosive manner, and they seem unconcerned about reconciliation. When they think about the situations and persons who have angered them, they usually reexperience the anger. The frequent intense reactivation of the cardiovascular system takes a toll over the years and contributes to the onset and progression of cardiovascular disease.

For women with breast cancer, anger is a "terrible" feeling of tightness, heaviness, and bing "tied in knots," which usually includes hurt, disappointment, helplessness, resignation, and which renders them unable to think or speak clearly. Their anger may occur quickly, but more often it "stews," welling up as it comes closer to the surface and "leaking out" as tears. Anger tends to create a sense of confusion which prevents them from making decisions or taking positive action. They avoid their own anger by failing to acknowledge it and by forgetting it. They avoid others' anger by "keeping the peace" and avoiding confrontation. They have learned to "put a lid on" their emotions, and they tend to hold their anger in, hide it, fall silent, and withdraw. They usually express their anger quietly, but they may yell or scream. Expressing anger often makes them more upset, and they become preoccupied with self-blame and the need for reconciliation.

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CHAPTER 1

INTRODUCTION

There has been increasing interest in the relationship of emotions and physical health in recent years. The introduction of the 'Type A' (Friedman & Rosenman, 1959) and 'Type C' (Greer & Morris, 1975; Temoshok et al., 1985; Temoshok, 1987) behavior patterns strongly suggest a possible relationship between the emotion of anger and the development and progression of cardiovascular disease and cancer. Recent advances in the field of psychoneuroimmunology (Solomon, 1985; Pert, 1993) have revealed a dynamic interconnectedness between the nervous, endocrine, and immune systems, providing support for the unity of mind/body.

Until recently, most studies involving the relationship of coronary heart disease and anger were conducted using male subjects and quantitative methods of data collection and analysis. In recent years, women's health issues have become the focus of national attention and of research (Thomas, 1993). The latest studies (American Heart Association, 1992a, 1992b) have revealed that the heart attack is the number one killer of American women, killing 240,000 each year. On a larger scale, cardiovascular disease, which includes all heart and blood vessel diseases, accounts for more than 485,000 deaths each year among women. In addition, more than 180,000 American women develop breast cancer each year, and approximately 46,000 die from breast cancer yearly. These figures indicate that cardiovascular disease and breast cancer pose substantial health risks for American women.

Likewise, until recently, most research designed to explore the differences in psychosocial variables among individuals with coronary disease and cancer (Bahnson, 1969; 1981; Eysenck, 1985; 1987a; 1987b; 1990, 1991; Schwartz, 1990) has been conducted using primarily quantitative methods. The value of employing both qualitative and quantitative methodology in the study of emotions and health has now been recognized (Fernandez, 1991; Hunt, 1992; Temoshok & Dreher, 1992; Thomas, 1993). The phenomenological approach provides a rigorous method for investigating emotions and illness, and it has been used to study anger in healthy populations (Stevik, 1971; Frankel, 1985), illness (Rawlinson, 1982; Buddenhagen, 1984; Hunt, 1992; Fernandez, 1992), and crying in women with and without breast cancer (Hunt, 1992). The phenomenological approach was used in the current study to investigate the experience and the expression of anger among women with cardiovascular disease and breast cancer.

What is Anger?

Twenty-five hundred years ago, Aristotle recognized the mental and bodily components of emotion. He believed that emotions could be understood only in light of judgments concerning the self. Aristotle defined anger as "a distressed desire for conspicuous vengeance in return for a conspicuous and unjustifiable contempt of one's person or friends" (Aristotle, 1984, p.44). Two thousand years later, Descartes proposed that the mind and body were essentially different and that emotions could best be described in terms of physical excitement and agitation

(Descartes, 1984). Descartes' mechanistic view of emotion ultimately led to the development of a number of theories of emotion which emphasized the importance of physiological changes.

James (1983) considered emotion to be the physiological changes which occur following an "exciting event" and wrote: "we feel sorry because we cry, angry because we strike, afraid because we tremble, and not that we cry, strike, or tremble, because we are sorry, angry, or fearful" (1983, p.170). C. G. Lange (1922) expanded James' theory by describing emotion in terms of physiological changes caused by the stimulation of vasomotor centers. The James-Lange theory of emotion implied that there was no relationship between emotion and reason; thus, it was an embodiment of the Cartesian mind/body split. Convinced that emotion was more than merely the perception of physiological changes, Cannon (1932) experimentally tested the James-Lange theory and concluded that visceral changes associated with emotion were aimed at establishing and maintaining homeostasis.

Darwin viewed emotion in terms of physiological change in the nervous system and survival value (Calhoun & Solomon, 1984). Building on Darwinian theory, Izard (1977) has identified anger as a basic primary human emotion which occurs when an individual is unable to fulfil a need or attain a goal. According to Izard (Thomas, 1993), facial expression and physiological functioning are both important in determining the individual's emotional experience.

Arnold (1960) was the first theorist to propose that the individual's appraisal of events and the assignment of meaning determine the emotion. Schacter and

Singer (1962) investigated the relationship of physiological arousal and cognitive components to emotional states and concluded that, while physiological arousal is an essential part of emotional experience, cognitive factors are essential in determining emotional states. Rothenburg (1971) proposed that anger is significant in terms of communication value in the context of meaningful relationships.

These theories represent only a few of many attempts by psychologists in every branch of psychology to define and explain emotion. Numerous psychological explanations have been proposed from physiological, behavioral, cognitive, and psychoanalytic perspectives. All of these perspectives are based on assumptions which originated with the Cartesian mind/body split. Existential-phenomenological psychology evolved in an attempt to understand the essence and structure of human consciousness and experience through the analysis of the description of experience.

Existential-phenomenological Psychology

Edmund Husserl

The name most often associated with the development of phenomenology as a research method is that of German philosopher Edmund Husserl. According to Husserl (1954/1970), the aim of philosophy and metaphysics is to discover "universal knowledge" (p.8) and its meaning. Husserl challenged the assumption of the natural-scientific method, which had developed as the result of Galilean physics and the Cartesian dualism of the mind-body split. Husserl believed that the

task of psychology was to engage in an intentional analysis of experience rather than to represent the "true being of nature itself" (p.44) through mathematical formulae.

Husserl asserted that reason and "that-which-is" (p.11) cannot be separated. They are part of a "pregiven" world, which he called the *Lebenswelt* or "life-world" (p.122). According to Husserl, the life-world is comprised of experience with and perception of "the thing itself" (p.128). He believed that the life-world has a general structure to which everything that exists is bound, and he called for a descriptive psychology provided by the phenomenological method to return "to the things themselves" (p.58). His method is based on the belief that consciousness must be consciousness *of* something and that this consciousness is intentionally directed, giving it meaning. Husserl believed that the "living body" (p.107) is the source of perception, and that phenomenology (which aims at the description of experience) provides the most rigorous and complete method for exploring the experience of the living body.

Martin Heidegger

Building on philosophic premises set forth by Husserl, Heidegger (1927/1962) explored the meaning of Being (*Dasein*) and set forth a theory of Being in his important work, *Being and Time*. According to Heidegger, the concept of *Dasein* assumes a state of Being which he called "Being-in-the-world" (p.78) and which must be considered as a whole to be understood. Heidegger believed that inquiry into the nature of Being required the consideration of one's presuppositions and that this could be accomplished only by considering one's "basic experience of the object

to be disclosed" (p.275). One of Heidegger's aims in *Being in Time* was to set aside all of the traditional presuppositions and interpretations of human existence and to consider the person as having no existence apart from the world. Heidegger believed that phenomenology offered a rigorous and unbiased method for understanding the interdependent nature of man and the world. Heidegger addressed the issue of emotion in terms of "moods" or "being attuned" (p.172). He believed that mood was an integral part of *Dasein* and wrote that "*Dasein* can, should, and must through knowledge and will become master of its moods" (p.174).

Maurice Merleau-Ponty

The first sentence of Merleau-Ponty's book *Phenomenology of Perception* (1962) asks the question "What is phenomenology?" (p. vii). He answers the question by stating that phenomenology is the "study of essences...the essence of perception, or the essence of consciousness" (p.vii). It is a "style of thinking...a matter of describing, not of explaining or analyzing...all knowledge of the world." (viii). He considered each individual to be the "absolute source" (p. ix) of lived experience. Like Husserl, Merleau-Ponty stressed the intentionality of consciousness--one is in a continual relationship with the environment and "all consciousness is consciousness of something" (p.xvii). According to Merleau-Ponty, the goal of phenomenological psychology is to consciously clarify concepts which are usually taken for granted.

In response to the question "What is the meaning of emotion," he stated that emotion is "a total act of consciousness, a mode of our relation to the entire world"

(p.61). Referring to the debate about the relative importance of physical and representational components of emotion as raised by James, Merleau-Ponty asserted that phenomenology was interested in the meaning of emotion rather than its physical or psychical components.

Jean-Paul Sartre

Sartre (1948/1974) believed that all emotions are unreflective, that they are set in motion by perception, and that they must have an object. He believed that emotion allows the person to transform the world so that he or she can escape the difficulties of seeing the world in a threatening way. According to Sartre, the person and the object are bound together through the emotion in an "indissoluble synthesis" (p.224). A phenomenological study of emotion is not aimed at gathering facts but at discovering meanings which are related to one's existential mode of relating to the world.

Amedeo Giorgi

Describing phenomenology, Giorgi (Giorgi, Fischer, & Von Eckartsberg, 1971) has written: "Phenomenology is the study of phenomena as experienced by man. The primary emphasis is on the phenomenon itself exactly as it reveals itself to the experiencing subject in all its concreteness and particularity ...The approach of phenomenology is characterized by the attitude of openness for whatever is significant for the proper understanding of a phenomenon" (p.9). According to Giorgi, the phenomenological approach aims at discovering the structure of the

phenomenon. This requires that the subject concentrate on the immediate experience of the phenomenon without expectations or preconceptions. Using the processes of intuition, reflection, and description, the individual first concentrates on what is being experienced and then on more specific questions about the phenomenon. A description of the phenomenon, its meaning, and its essence comprise the content of phenomenology. The analysis of the relevance and meaning of an experience reveals its significance to the person describing the phenomenon.

In a comparison of phenomenology and experimental psychology (Giorgi, Fischer, & Von Eckartsberg, 1971), Giorgi has proposed that the phenomenological approach offers several advantages over the traditional experimental approach. Giorgi begins by asserting that the qualitative approach offers a deeper and more thorough understanding of human phenomena than a quantitative approach. He believes that verbal descriptions reveal the essence and meaning of a phenomenon and that the process of description and thematizing is superior to the empirical tradition of data analysis as an approach to human experience.

Giorgi questions the assumption that exact situations can or should be experimentally duplicated, and he questions the validity of the traditional experimental approach as a model for human research. He believes that it is important to recognize and acknowledge the inevitable influence of the experimenter, who is responsible for designing, structuring, conducting, and interpreting research. According to Giorgi, the phenomenological approach takes

the subject's intentionality into account and offers a more reasonable model for the exploration of lived human experience.

In considering subjective experience as a source of data, Giorgi emphasizes the importance of understanding the significance of any behavioral act in terms of its relationship to the context of a situation. He believes that one can determine how a behavioral act fits into the context of a situation through an accurate description and explication, thereby revealing its meaning (Giorgi, Fischer, & Von Eckartsberg, 1971).

The Phenomenology of Feelings and Emotions

Using the phenomenological approach, Strasser (1977) has explored the differences between feelings and emotions. According to Strasser, feelings are useful in helping one to adjust to situations, while emotions tend to upset that adjustment. In his book *Phenomenology of Feeling*, Strasser (1977) describes the stages of emotion through which a young man moved as he was being teased by his companions. Based on his analysis, which included the move from increased emotional arousal through an emotional outburst, Strasser concluded that emotions are essentially negative, robbing man of his dignity and interrupting his ability to adjust.

Buytendijk's (1987) view of feelings and emotions is similar to that of Sartre. Buytendijk believes that feelings help human beings to determine the meaning of situations. In the act of feeling, there is a "closed reciprocal relationship between

the subject and its intentional object" (p.124). According to Buytendijk, phenomenological research requires exact, repeated observation and description of phenomena as they are presented in the intentional act of feeling. He concluded by stating that in the phenomenological analysis of feeling and emotion, the investigator must discover the invariance which occurs during the experience of feeling in various situations.

Fischer (1978) conducted a phenomenological investigation of being-anxious as an example of the meaning of being emotional. He has presented his rationale for using the existential-phenomenological approach to the understanding of human being-in-the-world in particularly eloquent terms. He wrote: "the adoption of this approach constitutes an effort to reawaken, to thematize and to reflectively understand the phenomena of being emotional as they are actually lived and experienced" (p. 168). Fischer also provided a clear explanation of the relationship of the subjects to the researcher. He described them as "partners in an enterprise whose meaning and purposes have been openly revealed and discussed...hence, the researcher and subjects embark on a collaborative enterprise" (p.172).

Stevick (1971) conducted a phenomenological investigation of the experience of anger among 30 adolescent. The analysis revealed that the essential prerequisite for the experience of anger was a situation in which the subject was unable to carry out a purpose due to obstacles placed on her by her own limitations or constraints placed on her by others. The experience of anger included a bodily feeling of explosiveness and a desire to express the feeling. In most cases, the expression of

anger resulted in the reduction of bodily tension. Unexpressed explosiveness produced tightness and tension, and some subjects reported internalized effects such as headaches, stomach pain, and muscle weakness. The termination of anger occurred as they gradually distanced themselves from the situation by becoming reflective and reviewing the relationship, the situation, and possible past, present and future alternatives.

Frankel (1985) conducted a phenomenological investigation of anger from the perspective of the self and other by interviewing 3 pairs of subjects. The experience of anger included several phases: an awareness in the self of negative feelings due to an obstacle presented by the other, an awareness of the unfairness of the situation, an urge to act which resulted in the communication of angry feelings, and a feeling of relief.

The analyses by Stevick (1971) and Frankel (1985) share common themes. Both include themes of an obstruction of purpose, a negative feeling, and the desire to communicate and to act, and a sense of relief. The phenomenological method proved to be an appropriate and effective means of exploring and describing the life-world of angry persons and in revealing common themes in the experience of Being Angry.

The Phenomenology of Illness

In a book entitled *The Humanity of the Ill: Phenomenological Perspectives*, Rawlinson (1982) has written about the experience of illness. She described illness

as an experience in which one is acutely aware of limitations. She noted the ways in which illness alters one's sense of time and space by constricting one's sight and reach as well as by constricting the world's horizon. She described how in illness the body becomes unreliable and unpredictable and how the awareness of disrupted plans and possibilities affect one's ability to have expectations. She further noted how illness demonstrates to the individual that certain aspects of life are not within his or her control, undermining his sense of individuality and integrity. Rawlinson noted that, because illness involves some degree of dependence and incapacitation, it humiliates and debilitates the individual and distorts one's relationships with others. Illness can also isolate a person through preoccupation with the illness itself and through avoidance by others because of stigma or fear.

Buddenhagen (1984) conducted a phenomenological investigation of the lives and experiences of 6 cancer patients. Six basic themes and three superordinate categories emerged as common to all of the subjects. The first two themes concerned Being: 1) not thinking about having cancer, and 2) living one day at a time. The next two themes involved Doing: 3) experiencing and coping with pain, and 4) an awareness of limitations. The fifth and sixth themes concerned Being-with-Others: 5) the importance of closeness to family and friends and 6) avoidance by others due to fear.

Fernandez (1992) investigated the world of 39 lupus patients using phenomenological interviews, medical data, and psychological tests. Five major themes common to lupus patients emerged from the phenomenological interviews: 1)

Isolation/Invisibility, 2) Constricted Existence, 3) Vulnerability/ Helplessness, 4) Transformation, and 5) Resoluteness. Isolation/Invisibility referred to the experience of isolation, lack of understanding and acceptance by others, and the feeling of alienation from self. Constricted Existence referred to the awareness of losses and limitations imposed by the illness. Vulnerability/ Helplessness was attributed to the sense of lacking control, the unpredictability of the disease, and the pain accompanying their disease. Transformation referred to both positive and negative changes in mood, personality, and lifestyle. Resoluteness referred to the experience of either struggling or fighting against the disease or to the experience of coping and adjustment.

The themes emerging from the two phenomenological studies of illness cited in this paper are consistent with many of those presented by Rawlinson. Awareness of limitation, resignation, isolation, rejection, lack of control, dependency, and a change in the experience of time are present in most descriptions. As with the studies of emotion, the phenomenological method elucidated the life-world of the ill person, revealing the essence of Being Ill.

Hunt (1992) investigated the experience of crying in women with and without breast cancer using quantitative and qualitative methods of data analysis. Although the experience of crying had different meanings for each group, a hermeneutic analysis of descriptions of crying yielded three major themes: 1) Being Separate From, 2) Barrier, and 3) Being In Unity With. Women without cancer were more aware of that which connected them to the world and to their emotions. Women

with cancer were more aware of that which separated them from overwhelming tensions and losses and that which moved them away from the world.

Purpose of This Study

Research strongly suggests that chronic psychological distress negatively affects health. Problems in the expression of emotion have been found to contribute to psychological distress and are associated with the development and progression of the disease process. Emotional expression has been found to be different among patients with cancer and cardiovascular disease, and a number of quantitative studies have been conducted comparing patients diagnosed with these two diseases. Patients with cancer have been found to repress or suppress their emotions, especially anger, while patients with cardiovascular disease have been found to access and express their emotions more readily. The findings of the phenomenological studies of emotion and illness previously cited have revealed consistent themes and support the use of the phenomenological approach as a valuable method for exploring the life-world of individuals with serious disease. The goal of this research project is to investigate phenomenologically the expression of anger among women who have been diagnosed with breast cancer or cardiovascular disease.

CHAPTER 2

LITERATURE REVIEW

Personality and Emotions

The concept of personality is complex, and a number of definitions have been suggested over the years. Most definitions refer to the unique and enduring quality of the person's characteristics which influence the ways in which he or she interacts with others and the environment. According to the most recent edition of the *Diagnostic and Statistical Manual of Mental Disorders*, personality traits are "enduring patterns of perceiving, relating to, and thinking about the environment and oneself, and are ... exhibited in a wide range of important social and personal contexts" (*Diagnostic and Statistical Manual of Mental Disorders, Third Edition-Revised*, 1987, p. 335). Although researchers have attempted to understand personality, investigations have been hampered by the lack of specificity in defining personality and in assessing and analyzing its various dimensions.

Likewise, the area of emotions is complex and their impact on human behavior has been of interest to many branches of science as well as the humanities. In an essay written in 1884, William James asked "What is an emotion?" and presented an explanation in terms of bodily changes which follow perception (James, 1983). Some scientists define emotions in terms of activation and arousal and consider emotions as the most powerful human motivational system, while others emphasize the importance of the relationship of cognition and emotions. Since James first

posed his compelling question, research on emotion has been conducted in many areas of psychology, and important contributions have been made from the cognitive, social, neurophysiological, personality, and phenomenological perspectives, to name a few (Izard, 1977).

Since the 1950s, research concerning the relationship of personality and emotion to physical health has become increasingly focused on the possible impact of negative emotions on health status. The individual's experience and expression of emotion is considered by many to be an important aspect of personality. Hostility, anger, and aggression have emerged as possible contributing factors in the etiology and progression of disease. This paper will review the research findings concerning the possible relationship of personality and emotions to the development and progression of cardiovascular disease and cancer.

Empirical Research

Empirical research is either retrospective or prospective in design. Retrospective studies involve subjects who have already been diagnosed with a disease; subjects may include only patients suffering from a given disease, or a comparison group may be included in the study. Studies in which patients suffering from a disorder are tested and compared with patients suffering from different disorders or with healthy controls are called cross-sectional studies. Retrospective studies are limited by the possibility that the subject's psychological state and the way in which he responds to the assessment procedures may be affected by the

disease and/or his knowledge that he has the disease. Since it is difficult to separate premorbid characteristics from psychological reactions to the trauma of dealing with disease and since comparisons of different groups may introduce unanticipated bias, conclusions based on the results of retrospective and cross-sectional studies must be interpreted with caution. In prospective studies, investigations are conducted on healthy populations that are followed up over the course of 10 years or more. The obvious advantage to this approach is the elimination of the possibility that the disease process will have a confounding effect on the results. This paper will present a review of research which has been conducted using retrospective and prospective approaches as well as research which has combined both approaches to examine the possible relationship of personality and emotion to cardiovascular and neoplastic disease.

Research on the Relationship of Personality and Emotion to Cardiovascular Disease

Although the number of deaths due to cardiovascular disorders has declined in the past 20 years, cardiovascular-related diseases are the principal cause of mortality and account for more than half the deaths in the United States. Coronary artery disease is largely due to fatty deposits in the large and medium-sized arteries serving the heart and is a contributing factor in the development of coronary heart disease, which includes angina pectoris, myocardial infarction, and sudden cardiac death (Krantz, Contrada, Hill, & Friedler, 1988).

Early Studies of Personality and Cardiovascular Disease (1940 - 1960)

Although the relationship of personality and physical health has been of interest to physicians and scientists for centuries, research in the area of psychosomatic disorders did not begin in earnest until the 1940s. Psychosomatic formulations appeared to offer increased understanding of the relationship of personality to cardiovascular disease under the direction of psychosomatic researchers such as Dunbar and Arlow.

One of the earliest retrospective studies of individuals with coronary disease was conducted by Dunbar (1943). Based on psychiatric interviews of patients with essential hypertension, rheumatic heart disease, and coronary occlusion, Dunbar concluded that these patients displayed predictable personality constellations. She described hypertensive patients as being shy, introverted, and reserved but emotionally labile; rheumatic heart patients as being sociable, extraverted, and active, but having a calm facade; and coronary occlusion patients as being sociable, self-confident, domineering, argumentative, competitive, and devoted to accomplishing their goals. Dunbar's early assertions that patients with coronary heart disease were characterized by definite personality types stimulated other researchers to explore the possibility of such as relationship.

Arlow (1945) based his conclusions on an analysis of psychiatric interviews and responses to the Rorschach Inkblot Test completed by 9 coronary occlusion patients. Arlow proposed that coronary artery patients had been oppositional children who had experienced an early competitive relationship with a feared and

envied parent, usually the father, and had repressed the conflict. Since the patient continued to reexperience his old conflict with authority by unconsciously recreating the original situation, he tended to drive himself compulsively through self-discipline and hard work but was unable to achieve satisfaction or relief from tension in spite of his achievements. Caught in a cycle of compulsive competitiveness and an ever-present sense of failure, the coronary patient developed a predisposition to cardiovascular disease instead of developing a neurosis.

In an effort to test Dunbar's hypotheses using a quantitative method, Storment (1951) investigated the personality traits of 90 male coronary subjects and a control group of patients hospitalized for infectious and other noncardiac disease. Storment found that, although there was a tendency among hypertensive and rheumatic patients to be overcritical and intolerant and among coronary occlusion patients to be emotionally stable and optimistic, there were no statistically significant differences among cardiac subgroups or between the cardiac groups and the control group.

Miles and his colleagues (Miles, Waldfogel, Barrabee, & Cobb, 1954) set out to critically evaluate Dunbar's and Arlow's assertions. Using psychiatric interviews and a battery of psychological tests, the personalities of 46 men who had suffered an myocardial infarction before the age of 41 were compared to the personalities of healthy subjects matched for age, body build, occupational status, ethnic origin, and social background. Although coronary patients were found to be less reflective, to have little awareness of their inner feelings, and to have difficulty in handling their

aggressive feelings, the authors found the coronary and control groups to be more similar than they were different and challenged Dunbar's and Arlow's assertions.

Research Concerning the Relationship of Personality and Cardiovascular Disease (1960 - 1990)

In spite of accumulating evidence that personality did not play a significant role in the etiology of coronary disease, scientific interest continued to be focussed in this area and many studies were conducted in the 1960s and 1970s to further explore the relationship of personality to coronary heart disease. Many of the early studies were retrospective and cross-sectional in design.

Retrospective Studies

Cross-sectional Studies

Several studies explored anxiety and depression in coronary patients. Miller (1965) attempted to determine differences in anxiety and hostility in coronary and noncoronary subjects. Subjects included 34 patients with a diagnosis of myocardial infarction and 34 subjects matched for age, sex, education, and IQ. Based on a verbal analysis of clinical interviews, coronary patients were found to be more anxious, depressed, self-critical, and psychologically disturbed, and less optimistic than controls, but there were no differences in the expression of hostility.

Minc and his associates (Minc, Sinclair, & Taft, 1963) hypothesized that practices in Western technological society require adaptation by the autonomic nervous system that leads to disturbances in homeostasis and contributes to the development of coronary heart disease. They designed a study to determine whether

coronary patients displayed psychological characteristics considered to be "typical of a well-socialized man living in a Western technological society" (p. 134). Subjects included sixty hospitalized men, 30 of whom had been diagnosed as having coronary disease and 30 who had been hospitalized for noncoronary disorders. A battery of 28 short physiological and psychological tests were administered to assess a number of variables. Coronary patients were found to be more controlled and inhibited, in spite of a desire to be more spontaneous. The authors concluded that the constitutional predisposition of coronary patients was incompatible with the demands of Western society as perceived by these patients, creating a chronic state of tension and contributing to the development of coronary heart disease.

Eastwood and Trevelyn (1971) administered a screening questionnaire to 2200 English citizens who were on medical practitioners' lists and selected 124 subjects who reported psychological symptoms and a group of 124 matched controls who did not report psychological symptoms. More coronary disease, as established by detailed electrocardiographic criteria, was found among the anxious-depressed group.

Kidson (1973) compared the psychological characteristics of 40 male hypertensive patients in a general out-patient clinic with 110 healthy male controls selected from the work force of an industrial organization. All subjects completed an interview, a physical examination, and several personality inventories, including the Sixteen Personality Factor Questionnaire (16-PF) and the Eysenck Personality

Inventory. Hypertensive patients were found to be significantly more labile, insecure, anxious, angry, and depressed than healthy controls.

Several researchers explored the possible causes of high levels of tension and anxiety among coronary patients. Cleveland and Johnson (1962) compared the results of interviews and psychological test data of 25 men hospitalized following recent myocardial infarctions with data from 25 subjects matched for education and socioeconomic background, who were awaiting serious surgery. Coronary patients were found to express more fear, anxiety, and apprehension about their physical condition and death; to have more underlying and unexpressed hostility, despondency, and hopelessness, and to described themselves as being more driven, independent, conforming, and concerned about how they were perceived by others. An in-depth content analysis of the projective material revealed that, while the coronary patient described himself as having high self-esteem, he was unconsciously insecure, dysphoric, depressive, and hopeless. Although he appeared to be calm and unperturbed, he actually felt vulnerable, anxious, and apprehensive about the future. The authors proposed that the coronary patient's high level of activity was a defense against an unconscious desire to be passive and an attempt to prove himself through incessant action.

Rime and Bonami (1979) explored the possibility that the presence of contradictory traits in the personality of coronary heart patients could contribute to the incidence of coronary heart disease. To test this hypothesis, 4 questionnaires were designed to assess the personality characteristics of dependence, impulsiveness,

passivity, and preference for seclusion. One questionnaire assessed overt attitudes and the subject's ideal self. Two questionnaires elicited information in a less direct manner, and a fourth questionnaire was designed to assess strategies of ego defense. Subjects included 60 myocardial infarction patients and controls matched for age and socio-occupational status. While coronary patients described themselves as significantly more active than controls, responses to questionnaires presenting more covert items revealed that they were significantly more passive, dependent, impulsive, and ego-defensive than controls. The authors concluded that individuals with a "coronary personality" experienced a considerable amount of inner tension due to the interaction of the conflicting infantile traits of passivity, dependence, and impulsiveness, with an autonomous, controlled, adult appearance and that the need to disguise less acceptable traits leads the coronary individual to exhibit hyperactive behavior as a defense against his underlying passivity.

In summary, the results of several cross-sectional studies suggested that coronary patients tended to be more active, anxious, depressed, inhibited, and controlled than noncoronary subjects. Based on the assessment of unconscious processes, there was evidence that this tension was related to the denial and suppression of passive, dependent, and hostile tendencies.

Studies Exploring the Psychological Characteristics of Patients with Cardiovascular Disease

While some studies compared groups of coronary patients to noncoronary groups of subjects, others studies confined their inquiry to individuals with cardiovascular disease. These studies provided additional evidence that coronary

patients use activity as a defense against passive, dependent tendencies and that depression is associated with coronary disease.

Based on observations made during psychiatric examinations and psychotherapy, Van Heijningen and Treurniet (1966) presented a description and psychodynamic interpretation of personality factors and behavior of 30 male myocardial infarction patients. Coronary patients were described as being hard working, ambitious, unable to tolerate feelings of dependence or inactivity, and domineering in family, love, and social life. They had difficulty verbalizing their feelings and in admitting anything which they consider weakness or failure. Coronary patients were found to alternate between feelings of independence and activity, which they openly acknowledged, and feelings of dependence and inactivity, which they found unacceptable and denied. The authors concluded that the coronary personality defends against passive tendencies through intense activity, denying dependency needs through an exaggerated emphasis on feeling autonomous and invulnerable, and channeling aggressive tendencies into hard work and a need to achieve.

Carney and his colleagues (1988) found that major depressive disorder was an important risk factor for the occurrence of major cardiac events in patients with coronary heart disease. Subjects included 52 patients diagnosed with significant coronary artery disease who completed a psychiatric interview and were assessed for the presence of a depressive disorder at the time of catheterization. Subjects were contacted 1 year after the catheterization, and the presence of major depressive disorder was found to be the best single predictor of the occurrence of subsequent

cardiac events. The incidence of cardiac events among patients with major depressive disorder was more than twice the incidence of patients without significant depression.

While increased anxiety has been noted in many coronary patients, some studies found a tendency toward denial among individuals with coronary disease. Croog, Shapiro, and Levine (1971) studied the reactions of 345 men who had suffered their first myocardial infarction, and found that 20% denied that they had even had a heart attack within 3 weeks of the event. Subjects were categorized as deniers and nondeniers on the basis of verbal responses to an initial interview. Deniers were found to overlook negative traits in themselves, to have their feelings hurt more easily, and to be in a hurry more than nondeniers. They also minimized the significance of their symptoms prior to the myocardial infarction, the seriousness of their condition or the effect it would have on their life and work, and the importance of complying with medical advice. Based on 2 subsequent interviews conducted 1 month after discharge from the hospital and 1 year after the infarct, denial was found to be a persistent characteristic.

Blumenthal and his associates (Blumenthal, Thompson, Williams, & Kong, 1979) administered psychiatric interviews,and a psychological battery to assess anxiety before a diagnostic angiography. Neither patients with coronary atherosclerosis nor patients with myocardial infarction reported significant anxiety, but patients with MI were found to report much less anxiety than patients without a history of myocardial infarction.

Although there is consistency in some of these findings, it is impossible to determine whether the increased anxiety, tension, denial, and depression were enduring characteristics which contributed to the onset of the disease or whether they were the result of coping with coronary disease.

Prospective Studies

Realizing the limitations of retrospective studies, Ostfeld and his colleagues (Ostfeld, Lebovits, Shekelle, & Paul, 1964; Lebovits, Shekelle, Ostfeld, & Paul, 1967) conducted one of the first prospective studies examining the relationship between personality and coronary heart disease. The study was begun in 1957, and subjects included 1990 men employed at the Western Electric Company in Chicago and judged to be free of coronary heart disease at their first physical examination. Subjects completed the Minnesota Multiphasic Personality Inventory and the 16-PF and were subjected to yearly physical examinations throughout the course of the next four and one-half years. Coronary patients were found to be more independent in their social relationships, to be more suspicious about the motivation of others, and to have a greater feeling of inner tension than men in the non-coronary group. Subjects who developed angina were found to complain more about somatic symptoms, to worry about their health status, and to be more labile than men with myocardial infarction.

Medalie and his associates (Medalie, Snyder, Groe, Neufeld, Goldbourt, & Riss, 1973) reported the results of a study of angina pectoris as a part of the Israel Ischemic Heart Disease Project. Subjects included 10,000 male civil service

employees without a history of coronary disease at the time of an intake examination. Subjects underwent 3 comprehensive physical and psychological examinations over a 5 year period. The development of angina was related to the level of anxiety, the number of life stressors, and occupational mobility. Subjects who scored high on the anxiety index were twice as likely to develop angina as those who reported no anxiety, and men who judged the severity of problems to be high, especially problems with family and co-worker, and those who were required to relocate were more likely to develop angina.

Siltanen and his colleagues (Siltanen, Lauroma, Nirkko, Punsar, Pyorala, Tuominen, & Vanhala, 1974) reported the results of a prospective cardiovascular study started in 1966 by the Finnish Heart Association as a part of the Helsinki Policeman Study. Of 1326 policemen examined, subjects included 40 men with ECG signs of coronary heart disease but no symptoms, 40 men with electrocardiogram signs of coronary heart disease and symptoms, and 41 healthy controls. Subjects, matched for age and occupational position, completed thorough physical examinations, interviews, and a battery of psychological tests. Both groups having electrocardiogram signs of coronary heart disease tended to be more careful, defensive, aggressive, and anxious than their healthy counterparts. They also experienced more internal discord, felt less adequate, and preferred more solitude than controls. When the two coronary heart disease groups were compared, subjects without symptoms were found to be more rational and less dependent, were

less interested in people or in their own physical condition, and were more inhibited than subjects with symptoms.

Thomas and her associates (Thomas & Greenstreet, 1973; Thomas, Ross, & Duszynski, 1975) reported the results of an analysis of data from the Study of the Precursors of Hypertension and Coronary Artery Disease. All Johns Hopkins medical students registered in classes graduating from 1948 through 1964, a total of 1337 subjects, completed physical and psychological testing, which included questionnaires and projective tests, and were classified on the basis of cholesterol level. A follow-up was conducted in 1973 to determine health status of the subjects, and 10 men were selected for inclusion in a coronary group and 103 men with high cholesterol but no coronary problems served as controls. Individuals in the coronary group were found to be significantly more anxious, angry, and depressed than their noncoronary counterparts. (Thomas & Greenstreet, 1973; Thomas, Ross, & Duszynski, 1975).

An analysis of the human figure drawings in the Precursor Study (Harrower, Thomas, & Alman, 1975) revealed significant differences among individuals developing coronary disease and healthy controls. Drawings were assigned to one of 8 categories, based on the assumption that the "stance" of the drawn figure reflected the subject's relationship with the world. Individuals who developed hypertension or coronary heart disease drew figures that were classified as "input-demanding" twice as often as those in the control group. The authors suggested that individuals drawing "input-demanding" figures may have a style of responding to

others which invites input, which then becomes excessive, taxing the individual physically and psychologically and increasing susceptibility to cardiovascular disease.

In a large prospective study involving male construction workers in Stockholm, Sweden (Theorell, Lind, & Fedorus, 1975), 6,579 members responded to postal questionnaires designed to determine socio-demographic and psychological variables and to assess the degree of recent life changes. Subjects were followed for 12 to 15 months to determine morbidity and mortality. A discord index was constructed to assess the discordance between the individual's actual situation and his expectations. Subjects who had experienced an myocardial infarction reported the highest level of discord, and hostility was found to be a consistent predictor of subsequent illness.

The results of these prospective studies suggests that individuals who subsequently developed cardiovascular disease experienced higher levels of anxiety, depression, hostility, anger, and internal discord than individuals who remained healthy. Within the coronary groups, individuals who developed angina pectoris tended to be more anxious, dependent, and labile, while men developing MI complained less, were more rational, and preferred solitude.

Type A Behavior Pattern

Among the most widely recognized studies of cardiovascular disease were those conducted by two cardiologists, Friedman and Rosenman, who began their investigations in the late 1950s. They conducted both retrospective and prospective studies and, based on their observations and research findings, proposed that an

overt behavior pattern was associated with increased risk of coronary heart disease. The behavior pattern, later known as Type A Behavior Pattern was described as follows: "(1) an intense, sustained drive to achieve self-selected but usually poorly defined goals, (2) profound inclination and eagerness to compete, (3) persistent desire for recognition and advancement, (4) continuous involvement in multiple and diverse functions constantly subject to time restrictions (deadlines), (5) habitual propensity to accelerate the rate of execution of many physical and mental functions, and (6) extraordinary mental alertness" (Friedman & Rosenman, 1959, p. 1286). They defined a second behavior pattern, known as Type B, as the relative absence of these characteristics.

Friedman and Rosenman designed the Structured Interview to assess Type A behavior pattern by the presence or absence of the following characteristics: rapid bodily movement, tense face or body muscles, explosive conversational tone, hand or teeth clenching, excessive gesturing, an impatient attitude, an admission of sustained drive, the need to hurry, a chronic sense of urgency, and competitiveness. Using the newly developed Structured Interview in one of their initial studies, Type A individuals were found to have higher levels of serum cholesterol and greater evidence of coronary heart disease than those classified as Type B (Friedman & Rosenman, 1959).

The Western Collaborative Group Study

In 1960, a prospective epidemiological study called the Western Collaborative Group Study (WCGS) was initiated by Friedman, Rosenman, and a number of their

colleagues (Rosenman, Friedman, Straus, Wurm, Kositchek, Hahn, & Werthessen, 1964). Based on initial intake evaluations, 3411 men were judged free of coronary heart disease and were then classified as displaying either Pattern A or Pattern B behavior on the basis the Structured Interview. Subjects were reevaluated at various intervals after the initial intake examinations to ascertain the incidence of coronary heart disease, and men classified as Type A were expected to have a higher incidence of coronary heart disease than men classified as Type B. At a follow-up 2 1/2 years after the initial evaluation (Rosenman, Friedman, Straus, Wurm, Jenkins, & Messinger, 1966), subjects exhibiting Type A behavior pattern had incurred coronary heart disease at a rate more than 3 times as great as those classified as exhibiting Type B behavior. When subjects over 50 years of age were excluded from the analysis, coronary heart disease was found to occur more than 6 times as frequently in Type As than in Type Bs. Of the nine subjects who had suffered fatal myocardial infarctions, 8 had been classified as Type A.

A paper-and-pencil test, known as the Jenkins Activity Test (JAS), was developed in 1965 to identify Type A behavior pattern. It was found to validly identify 72% of men who were judged as Type A using the Structured Interview (Jenkins, Rosenman, & Friedman, 1967), and it was used extensively to classify subjects according to behavior pattern. Using the Jenkins Activity Test with 2960 participants in the Western Collaborative Groups Study, (Zyzanski & Jenkins, 1970), coronary prone individuals were found to be hard workers who strive for

success in their profession and who tend to be aggressive, ambitious, active, and compulsive.

In follow-ups conducted 4 1/2 years and 8 1/2 years after the initial evaluation (Rosenman, Friedman, Straus, Jenkins, Zyzanski, & Wurm, 1970; Rosenman, Brand, Jenkins, Friedman, Straus, & Wurm, 1975), Type A behavior pattern was found to be significantly related to a higher incidence of coronary heart disease, and the association was independent of other risk factors. Of the 50 subjects who had died from coronary heart disease at the final follow-up, 34 were classified as Type A and 16 were classified as Type B. Based on their findings, the authors concluded that Type A behavior pattern is prominent among variables which contribute to the incidence of coronary heart disease.

The Framingham Heart Study

While Friedman, Rosenman, and their associates were conducting the WCGS, Haynes, Feinleib, and their colleagues were carrying out research using subjects from the Framingham Heart Study (Haynes, Levine, Scotch, Feinleib, & Kannel, 1978; Haynes, Feinleib, Levine, Scotch, & Kannel, 1978; Haynes, Feinleib, & Kannel, 1980). In Framingham, Massachusetts, 2282 men and 2845 women judged free of coronary heart disease had been followed biennially since 1949 for the development of coronary heart disease. A 300-item life history questionnaire was used to explore socio-demographic situations, behavior types, life events, situational stress, and somatic strain. From the 300 questions, 20 scales were developed to assess behavioral dimensions, including the 10-item Framingham Type A behavior

pattern scale. This scale assessed several dimensions of Type A behavior pattern, including ambitiousness, emotional lability, tension, daily stress, and anger. From 1965 to 1967, the questionnaires were administered to 1822 members of the Framingham Heart Study who were free of coronary heart disease at the 8th or 9th biennial medical examination. Subjects who subsequently developed coronary heart disease scored consistently higher on the Framingham Type A behavior scale than noncoronary subjects. Framingham Type A women were more likely than Type B women to suffer from angina, and of the women who had developed angina, all were classified as Type A. Older men classified as Type A were more than two times more likely to have angina than their Type B counterparts, and among younger men who had experienced an myocardial infarction, all were classified as Type A. (Haynes, Levine, et al., 1978; Haynes, Feinleib, et al., 1978).

Further analysis of the results of the Framingham Study (Haynes, Feinleib, & Kannel, 1980) revealed that both Type A behavior pattern and hostility were important risk factors for the development of coronary heart disease in men and women. Men who developed coronary heart disease scored significantly higher on Framingham Type A behavior and tended to keep their anger to themselves rather than taking it out on others or talking about it. Older men who were classified as exhibiting Framingham Type A behavior were 3.4 times more likely to develop angina than those exhibiting Type B behavior, while younger Type A men were twice as likely to have an myocardial infarction than Type B men. Among women, those developing coronary heart disease scored significantly higher on the tension,

suppressed hostility, and Framingham Type A scales. Type A women were 2.1 times as likely to develop coronary heart disease and 3 times as likely to develop angina pectoris as Type B women.

Using the data from the Framingham Study to study the effects of working outside the home, Haynes and Feinleib (1980) considered the responses of the subjects who participated in the Framingham Study according to work status. Working women were defined as women who had been employed outside the home for more than half of their adult lives, and their responses were compared to those of housewives and men. Women were found to report significantly more symptoms of emotional distress than men, regardless of their employment status. Working women and men reported more ambitiousness, more Type A behavior, and more marital disagreements than housewives, with working women reporting more daily stress and marital dissatisfaction than either housewives or men. While there was no significant difference in incidence rates of coronary heart disease among working women and housewives, women holding clerical jobs were almost twice as likely to suffer from coronary heart disease than housewives, and suppressed hostility was one of the most significant predictors of coronary heart disease among female clerical workers.

Both the Western Collaborative Group Study and the Framingham Study provided support for the association of behavior pattern and coronary heart disease. Using a multiple logistic risk equation (Brand, Rosenman, Sholtz, & Friedman,

1975), the data from both studies was analyzed and substantial risk was found to be directly associated with Type A behavior pattern.

Further Examination of Type A Behavior Pattern

Jenkins and his colleagues (Jenkins, Hames, Zyzanski, Rosenman, & Friedman, 1968) considered the relationship of psychological variables to cholesterol in a study involving 2 samples of employed American men. In the first part of the study, which involved 34 firemen, serum cholesterol levels were determined and responsibility, self-control, self-acceptance, and socialization were measured using the California Psychological Inventory (CPI). In the second part of the study, serum cholesterol level were determined, and the Socialization and Self-Acceptance scales of the California Psychological Inventory were administered to 152 supermarket employees. Serum cholesterol levels were significantly and positively related to responsibility, degree of socialization, and self-control, and negatively related to the degree of self-acceptance. Men who were accepting of social norms, who valued being dependable, conscientious, and industrious and who controlled their impulses had higher serum cholesterol levels. Men who tended to be passive and self-critical tended to have even higher cholesterol levels.

Caffrey (1969) studied behavior patterns and personality characteristics among 1433 American monks drawn from Trappist and Benedictine monasteries in the United States and Canada. Subjects completed the Structured Interview and self-report questionnaires which included the 16-PF and a sociological inventory, and were rated by an Abbot and a peer at the monastery according to the Type A

patterns. Compared to standard population norms, monks displayed high anxiety and were described as "anxious introverts." Priests, who generally hold more responsible positions in a monastery, were found to have more Type A characteristics than "brothers," and Benedictine priests--the group judged to have the most responsible positions and found to have the highest rate of myocardial infarctions--manifested more of the Type A behavior than the other monks.

A post-mortem study (Friedman, Manwaring, Rosenman, Donlon, Ortega, & Grube, 1973) compared persons dying of coronary artery disease and persons dying from other causes. Subjects included 64 persons who died of coronary artery disease and 16 persons whose sex and age were similar to the coronary subjects but who died of noncardiac and nonhypertensive causes. Interviews were conducted with relatives, friends, and those witnessing the death to obtain data concerning the subjects' past illnesses, behavior pattern, eating, smoking, and exercise habits. There was a significantly greater frequency of Type A behavior pattern among persons dying of cardiac disease.

Bruhn and his associates (Bruhn, Parades, Adsett, & Wolf, 1974) conducted a prospective study to determine if the presence of the "Sisyphus reaction," Type A behavior pattern, and depression contributed to coronary heart disease. Sixty-seven myocardial infarction patients and 67 matched controls completed a psychiatric interview to determine the presence of the "Sisyphus reaction," which was characterized by effortful striving against odds with little satisfaction. Type A behavior pattern was assessed using the Structured Interview, and the Depression

scale of the Minnesota Multiphasic Personality Inventory was used to assess depression. All three factors were positively associated with coronary death, and 7 of the 10 subjects with the most extreme Sisyphus reactions were also among the 10 judged to have the most extreme Type A behavior pattern.

Kenigsberg and his associates (Kenigsberg, Zyzanski, Jenkins, Wardell, & Licciardello, 1974) studied inpatients at a Connecticut hospital to determine if Type A behavior pattern was more common among patients with coronary heart disease than patients hospitalized for other disorders. Subjects included 48 patients with coronary heart disease and 42 patients hospitalized for surgery or traumatic injury. Coronary patients exhibited significantly more Type A behavior pattern and were more hard-driving as measured by the Jenkins Activity Scale.

In an effort to further refine the concept of Type A behavior pattern, Matthews and her colleagues (Matthews, Glass, Rosenman, & Bortner, 1977) analyzed tape-recorded answers to 37 interview questions from Structured Interviews. Subjects included 62 coronary patients and two matched non-coronary controls for each coronary heart disease patient, making a total of 186 subjects. Tape-recorded answers were coded by independent raters, and subjects were assessed according to a number of variables. Vigor, hostility, and drive were found to be significantly related to coronary heart disease.

Dimsdale and his associates (Dimsdale, Hackett, Block, & Hutter, 1978; Dimsdale, Hutter, Hackett, & Block, 1981) conducted 2 studies to explore the association between Type A behavior pattern and several emotional factors. Subjects

for the first study included 109 patients who were awaiting cardiac catheterization, and the second study involved 171 men who had already undergone cardiac catheterization. Type A behavior pattern, the tendency to use denial, recent life changes, and psychological state were assessed using a variety of instruments. In first study, Type A behavior pattern was found to be significantly correlated with depression, anger, and stressful life events, and depression and anger were found to be among the most important risk factors for myocardial infarction in the second study.

As the 1970s drew to a close, findings were somewhat inconsistent, but there was considerable evidence to support the notion that certain personality variable were associated with coronary heart disease. The evidence was so convincing that the National Heart, Lung, and Blood Institute held two conferences in 1977 and 1978 aimed at exploring Type A behavior pattern and its possible contribution to the development and progression of coronary heart disease. At the conclusion of the second conference, the panel issued the following statement about Type A Behavior Pattern: "This risk is greater than that imposed by age, elevated values of systolic blood pressure and serum cholesterol, and smoking and appears to be of the same order of magnitude as the relative risk associated with the latter three of these other factors" (Dembroski & Costa, 1987, p.216). This endorsement provided impetus for continued interest and research into Type A behavior pattern, with emphasis in the 1980s on the physiological aspects of Type A behavior pattern.

Newlin & Levenson (1982) investigated cardiovascular responses to stress in subjects considered to be at risk for coronary heart disease on the basis of the history of parental heart disease. Subjects included 47 males who were classified as Type A or Type B based on their score on the Jenkins Activity Scale. Subjects were exposed to 2 psychosocial stressors, mild shock and the Stroop Color-Word Tests, and 1 physical stressor, the isometric hand grip. Type A individuals displayed heightened reactivity to all 3 stressors.

Krantz & Durel (1983) investigated the possibility that there might be a constitutional basis for the differences in Type A and Type B individuals. They compared blood pressure of patients, classified as Type A based on the Structured Interview, on 3 occasions: upon admission to the hospital, at the onset of surgery, and during surgery. They found that there were increases in systolic blood pressure in Type A individuals during surgery when patients were anesthetized and proposed that there is an underlying psychobiological basis for Type A behavior.

Stevens and his associates (Stevens, Turner, Rhodewalt, & Talbot, 1984) investigated the possibility that Type A behavior pattern might be related to disease in other arteries besides the coronary arteries. Forty-four patients with carotid artery atherosclerosis completed the Jenkins Activity Scale as a measure of Type A behavior pattern. Individuals with diseased carotid arteries were significantly more likely to be classified as Type A than nondiseased subjects, confirming the hypothesis that atherosclerosis in Type A individuals is not limited to coronary arteries but extends to other parts of the arterial system.

Evidence supporting the concept of Type A behavior pattern and its relationship to coronary heart disease has continued to accumulate. As efforts have been made to refine the concept of Type A behavior pattern, the experience and expression of emotion has emerged as a significant factor in the incidence of coronary heart disease.

Research Concerning the Relationship of Emotion to Cardiovascular Disease

One of the characteristics which has been found consistently in individuals exhibiting Type A behavior pattern is a tendency toward hostile, angry, aggressive behavior. Williams and his colleagues conducted several studies which identified hostility as an important factor in the incidence of coronary disease. In one of the early studies (Williams, Haney, Lee, Kong, Blumenthal, & Whalen, 1980), subjects included 424 persons who were scheduled for a diagnostic arteriography. Subjects completed a routine cardiology workup and a battery of psychological tests to assess Type A behavior pattern, depression, life changes, and social support. Seventy-one percent of the 319 patients who were classified as Type A had at least one significant coronary arterial occlusion in comparison with 56% of the 105 Type B patients. Of the subjects who had low scores (less than 10) on the Cook-Medley Hostility scale of the Minnesota Multiphasic Personality Inventory, only 48% exhibited a significant occlusion, while subjects scoring higher than 10 showed a 70% rate of significant disease. Within the sample of 117 female patients, Type A subjects scoring higher than 10 on the Cook-Medley scale of the Minnesota Multiphasic Personality Inventory were 3.6 times a likely to have a significant

arterial occlusion than Type B women. While both Type A behavior pattern and hostility were independently related to atherosclerosis, hostility emerged as more strongly related to atherosclerosis than Type A behavior pattern.

In a prospective study, Barefoot, Dahlstrom, & Williams (1983) examined the relationship between hostility and subsequent health status in a 25-year follow-up of physicians. Subjects included North Carolina Medical School alumni from 1954 through 1959 who had been given the Minnesota Multiphasic Personality Inventory as part of their medical training. In 1981, questionnaires were mailed to alumni asking for information concerning their current health status. A hostility score was computed using the Cook Medley Hostility Scale of the Minnesota Multiphasic Personality Inventory for the 255 subjects who responded. The median hostility score was 13; subjects with a score of 14 or more were nearly 5 times more likely to have developed coronary heart disease than subjects scoring below 13. Of the 20 subjects reporting hypertension, 13 had hostility scores above the median.

Based on the results of an extensive analysis of data from 2,100 patients diagnosed with coronary atherosclerosis (Williams, 1984), a significant relationship between Type A behavior pattern and coronary artery disease was found. Patients were classified as Type A or Type B on the basis of the Structured Interview. Among patients younger than 45, Type As were found to have more severe coronary artery disease than Type Bs. In a collaborative study with Dembroski (Williams, 1984), a subgroup of Structured Interviews were coded according to "anger-in" and "anger-out" characteristics. "Anger-in" refers to suppression of

anger (not letting others know when one is angry), while "anger-out" refers to the open expression of anger. Hostility and anger-in scores were significantly related to the severity of coronary arteriosclerosis; disease severity increased as a function of increasing hostility scores only in patients who scored high on anger-in.

Williams proposed that chronic endothelial injury (injury to the tissues that line the blood vessels, lymphatic vessels,and heart) may initiate and promote atherosclerotic plaque and may contribute to the development of coronary atherosclerosis among Type A patients and presents evidence from a recent study with healthy subjects. Neuroendocrine responses, cardiovascular responses, and blood samples were taken from male undergraduate subjects who performed sensory intake tasks and mental arithmetic tasks. Type A men showed larger neuroendocrine, cardiovascular, and cortisol responses, supporting Williams' assertion of increased fight/flight responses and endothelial injury among Type As.

Van Dijl (1982) conducted 3 studies comparing aggressiveness and hostility in 261 male myocardial infarction patients and 261 healthy males matched for age and educational level. Subjects completed the Rating of Statements List, and scores from the Aggressiveness/ Hostility subscale were compared for the 2 groups. In all 3 studies, myocardial infarction patients were significantly more aggressive and hostile than healthy males.

Using data from the Western Electric Study, Shekelle and his colleagues (Shekelle, Gale, Ostfeld, & Paul, 1983) reanalyzed Minnesota Multiphasic Personality Inventory scores according to the Cook Medley Hostility Scale.

Elevated hostility scores were significantly associated with 10-year incidence of coronary heart disease and with mortality from cardiovascular diseases.

Smith, Follick, and Korr (1984) studied anger, neuroticism, and Type A behavior pattern in patients with angina pectoris. Subjects included 50 patients hospitalized on a non-emergency basis for diagnostic cardiac catheterization. Patients completed several standardized measures, including the Jenkins Activity Scale, Eysenck Personality Inventory, an anger scale, and a questionnaire about anginal symptoms. Of the three personality variables (Type A, anger, and neuroticism), only anger was significantly correlated with the frequency of anginal symptoms.

Tennant and Langeluddecke (1985) explored the relationship of Type A behavior pattern to the severity of coronary heart disease in 92 patients scheduled to undergo coronary angiography. The subjects were asked to complete a detailed questionnaire which included sociodemographic and lifestyle information and items designed to assess trait tension, hostility, locus of personal control, and tendency to suppress affect. They also competed a battery of psychological measures to assess anger, Type A behavior pattern, anxiety, and neuroticism, and a number of physiological measures were made. A complex relationship between hostility and atherosclerosis emerged. Type A behavior pattern scores were related to total coronary atherosclerosis, but not with the severity of angina or the duration of coronary heart disease. Trait anxiety and trait tension were related to the chronicity of disease but there was no significant relationship of state anxiety, tension, or

depression to angiographic measures. The severity of angina and the chronicity of heart disease were associated with depression and expressed hostile emotions, and the suppression of anger was positively related to the degree of atherosclerosis.

In a continued effort to understand the possible role of Type A behavior pattern in the development of coronary heart disease, Friedman and his associates (Friedman, Hall, & Harris, 1985) examined 60 men at high risk for coronary heart disease in terms of their expressive style. The authors proposed that there are four primary subgroups within the Type A - Type B categories. The first group (healthy expressive) is composed of healthy people who are expressive, fast-moving, and dominant, who are in control, are sociable, and cope well. A second group (true Type A) is composed of competitive, hostile people who express their dominance in a threatening, negative manner. A third group (false Type B) consists of tense, over-controlled people who appear to be unexpressive but may explode under pressure and are prone to illness. A fourth groups (true Type B) consists of quiet, relaxed people who are content, submissive, and unexpressive. Sixty subjects were selected from among participants in the Harvard Multiple Risk Factor Intervention Trial from those scoring highest and lowest on the Jenkins Activity Scale. Each subject was videotaped during a nonstressful interview, and the tapes were rated along 9 scales which captured various aspects of Type A behavior pattern. Subjects also completed several measures of emotional expressiveness, feelings of mastery, recent life changes, and stress. Healthy Expressives and True Type Bs were found to be healthier, more alert, less tense, and less repressed than

the True As or False Bs. True As and False Bs were found to have more peripheral artery problems than Healthy Expressives or True Bs. True As displayed greater hostility but without the vigor and activity that is usually associated with Type A behavior pattern.

Dembroski and Costa (1987) challenged the notion that global Type A behavior pattern is associated with coronary heart disease, citing several recent angiographic studies which have failed to find a significant association between global Type A behavior pattern and the extent of coronary artery disease, and argued that this is evidence that not all of the components of Type A behavior pattern may be "toxic." Their interest in hostility as an important factor in coronary heart disease led them to develop a component scoring system which takes potential for hostility, anger expression, and verbal speech patterns into account and which can be applied to Structured Interviews. Using this system to rescore Structured Interviews in the Western Collaborative Group Study, they found that Potential for Hostility and Anger-Out were the most powerful discriminator between cases of coronary heart disease and controls.

In recent years, three new scoring systems which rely on clinical judgments of the respondent's behavior have been introduced. Dembroski, MacDougall, Costa, and Grandtis (1989) introduced the Hostility Facet Scoring System (HFSS) which measures Total Potential for Hostility, Hostile Content, Intensity of Hostility, and Hostile Style. Ratings of Hostile Content are based on manifest content, while ratings of the Intensity of Hostility include content and speech stylistics and ratings

of Hostile Style is based on the interaction between the interviewer and respondent. In a sample of 576 interviews obtained for the Multiple Risk Behavior Pattern study, only Total Potential for Hostility and Hostile Style were related to coronary heart disease. The researcher concluded that the respondent's behavior during the interview was an equally important indicator of hostility independent of the manifest content.

The Component Scoring System (CSS) was designed to rate 14 dimensions of Type A behavior pattern, including hostility (Chesney, Hecker, Black, 1989; Hecker, Chesney, Black, & Frautischi, 1988) and was used to evaluate reanalyze some of the WCGS interviews. Although a univariate analysis indicated that five of the dimensions in the CSS were significantly related to coronary heart disease, only the Hostility component remained significant in multiple logistic analyses.

In an attempt to combine the theoretical distinction between speech content and interviewee behavior, the Interpersonal Hostility Assessment Technique (IHAT) was recently developed (Barefoot, 1992). The IHAT permits more detailed coding of hostile behaviors than precious systems and provides a more detailed analysis of various forms of hostility expression. Four types of behaviors were coded: Hostile Evasions, Indirect Challenges, Direct Challenge, and Irritation. The IHAT rating system has been used in three independent samples of patients undergoing diagnostic coronary angiography at the Duke University Medical Center using male and female samples across a large range of ages. The Hostile Behavior index was found to have a very strong relations to disease severity, and the finding remained unchanged

in logistic models controlling for age, history of hypertension, hyperlipidemia, and smoking. Of the four components, Indirect Challenge, in which the subject responds to the interviewer in a fashion that suggests that the question was pointless, was the strongest.

The studies cited thus far have provided evidence of a positive relationship between certain aspects of personality, emotion, and the incidence of coronary heart disease. Although there are many studies which have provided confirmation for this relationship, there are a significant number which do not support such a conclusion.

Research Finding No Relationship of Personality, Emotion, and Cardiovascular Disease

Gillum and his associates (Gillum, Leon, Kamp, & Becerra-Aldama, 1980) initiated a prospective study, known as the Cardiovascular Disease Project, in 1947, with the intention of determining the various physical, social, and psychological factors associated with the onset and progression of cardiovascular disease. A group of 281 emotionally stable and physically healthy middle-aged men completed the Minnesota Multiphasic Personality Inventory in 1947 and several times thereafter, and their health status was evaluated on a yearly basis. Neither the rate of morbidity nor the cause of death could be predicted on the basis of the 1947 Minnesota Multiphasic Personality Inventory data.

McCranie and his colleagues (McCranie, Watkins, Brandsma, & Sisson, 1986) attempted to replicate the study described earlier by Barefoot et al. Subjects included 478 alumni of the Medical College of Georgia who had completed the

Minnesota Multiphasic Personality Inventory at the time of their interview for admission to medical school between 1953 and 1961. Following the procedures employed by Barefoot et al., the incidence of coronary heart disease was compared among physicians with scores in different quartiles of the Cook-Medley Hostility Scale. Hostility scores were not found to be significantly related to the incidence of coronary heart disease or to total mortality.

Leon and her associates (Leon, Finn, Murray, & Bailey, 1988) analyzed medical and psychological data collected on a group of 280 male subjects who participated in the Cardiovascular Disease Project over a period of 30 years. The analysis for this study used Minnesota Multiphasic Personality Inventory data collected in 1947 and the medical follow-up data collected between 1947 and 1977. The Cook-Medley Hostility scale and Minnesota Multiphasic Personality Inventory scales used to assess Cynicism, Denial of Somatic Problems, Depression, and Neurasthenic Somatization were included in the analysis, and none of the scale scores was found to be significantly related to the incidence of coronary heart disease.

The Belgian-French Cooperative Heart Study (cited in Matthews & Haynes, 1986) examined predictors of the incidence of coronary heart disease in 2,811 healthy male factory workers and civil servants in Brussles-Ghent, Belgium, and France. Using the Bortner Scale to measure Type A behavior, Type A behavior pattern was not a significant predictor of coronary heart disease in each sample; but, when the groups were considered as a whole, using multivariate analyses, Type A

was a significant predictor of total coronary heart disease, myocardial infarction, and sudden cardiac death.

The Jenkins Activity Scale was administered to 2,220 participants in the Honolulu Heart Program (cited in Matthews & Haynes, 1986), and subjects were followed for 8 years for the development of coronary heart disease. No relationship was found between Type A behavior and the incidence of total coronary disease, angina pectoris, or myocardial infarction.

In addition to prospective studies which did not find an association of psychological characteristics and coronary heart disease, some retrospective studies also yielded inconsistent results. Subjects for the Multicenter Post Infarction Program (cited in Matthews & Haynes, 1986) included 548 patients who had suffered an acute myocardial infarction. The subjects completed the Jenkins Activity Scale within 2 weeks after discharge from intensive care, and no significant relationship was found between Type A behavior pattern and mortality, time to death for nonsurvivors, or duration of stay in the coronary care unit.

Subjects for the Aspirin Myocardial Infarction Study (Shekelle, Gale, & Norusis, 1985) included 2,314 persons who had suffered an myocardial infarction but had no history of previous cardiac surgery. Subjects completed the Jenkins Activity Scale, and their health status was followed for 3 years after their hospitalization, and no relationship was found between Type A behavior pattern and a recurrent cardiac event.

From a population of 12,700 men who were free of coronary heart disease, 3,110 men judged to be at risk for coronary heart disease based on a number of factors were selected to participate in the Multiple Risk Factor Intervention Trial (Shekelle, Hulley, Neaton, Billings, Borhani, Gerace, Jacobs, Lasser, Mittlemark, & Stamler, 1985). Subjects were randomly assigned to one of 2 groups and either received educational instruction or an intervention designed to reduce the risk of coronary heart disease. All subjects completed the Jenkins Activity Scale and 25% completed the Structured Interview as measures of Type A behavior pattern. There was no significant difference in total mortality or coronary heart disease between subjects classified as Type A and Type B.

Is Personality Related to the Development of Cardiovascular Disease?

Enough conflicting evidence has accumulated to warrant several extensive reviews of the literature. Jenkins (1976a, 1976b) reviewed 88 studies and concluded that, despite negative findings, there is sufficient evidence to support the position that the prevalence of coronary disease, the risk of the development of coronary disease, the degree of atherosclerosis, and the possibility of recurrence of myocardial infarction are all associated with coronary-prone, Type A, behavior.

Matthews and Haynes (1986) conducted an extensive review, citing several large studies which failed to find evidence of a significant relationship between the coronary-prone behavior pattern and the incidence of coronary heart disease. They concluded that population studies suggest that Type A behavior is a risk factor for coronary heart disease but that there is not sufficient evidence to conclude that Type

A behavior is a risk factor for recurrent cardiac events or for mortality due to coronary disease.

Linden (1987) presented a critical analysis of conflicting evidence and suggested that there are several possibilities for explaining the inconsistencies in research findings. He proposed that Type A behavior pattern may be a much less important factor in the incidence of coronary heart disease than initially believed and that global Type A behavior pattern may contain one or more significant predictor elements. Because the elements have been so poorly defined and understood, the predictive power of global Type A behavior pattern has been reduced. He pointed out that most early studies were conducted using male subjects and reasoned that contradictory findings may have been due to sex effects. He also noted that cultural differences, such as speech stylistics and non-verbal expression, may have contribute to disparate findings. Linden concluded that, in spite of the inconsistencies and contradictions in research findings, evidence strongly suggests that some aspects of Type A behavior pattern are implicated in coronary heart disease. He suggested that studies in which the effects of specific components of Type A behavior pattern, such as Hostility and Anger-In, are carefully defined and explored, might contribute to a better understanding of the relationship of Type A behavior pattern to coronary disease.

Booth-Kewley and Friedman (Friedman & Booth-Kewley, 1987; Booth-Kewley & Friedman, 1987) conducted a quantitative review, known as a meta-analysis, in an attempt to integrate and organize the results of studies which investigated

personality variables in relation to coronary heart disease. Of 150 studies considered, 83 met the criteria they had established for inclusion in the meta-analysis. The following results emerged: An aggressive, competitive drive may be central to true coronary-prone behavior, while time urgency and job involvement probably are not. Of the psychological variables, depression and hostility were most strongly related to coronary disease, with anger, aggression, and extraversion also showing a reliable association to coronary heart disease. Based on this analysis, the authors concluded that there is a modest but reliable association between a number of personality variables and cardiovascular disease and that the Type A construct should be regarded as only one part of the "coronary-prone personality." In contrast to the description of the Type A individual in 1957, they stated: "Overall, the picture of the coronary-prone personality emerging from this review does not appear to be that of the workaholic, hurried, impatient individual, which is probably the image most frequently associated with coronary proneness. Rather, the true picture seems to be one of a person with one or more negative emotions; perhaps someone who is depressed, aggressively competitive, easily frustrated, anxious, angry, or some combination. In short, a maladapted personality may actually be the one that is particularly prone to developing coronary heart disease and perhaps other diseases as well" (Booth-Kewley & Friedman, 1987, p. 358).

Rosenman (1990) recently presented an overview in which he traced the history of Type A behavior pattern and the progress that has been made in refining it. He

addressed the issue of inconsistencies in research findings and gave the following possible explanations: The use of beta-adrenergic blocking drugs to treat patients with hypertension and myocardial infarction may have had an unanticipated effect on the data. The use of the Jenkins Activity Scale, which was found to inaccurately assess several components of Type A behavior pattern, may also have contributed to the contradictions in findings. The administration and assessment of the Structured Interview was varied among interviewers, and the proficiency of the interviewers may have had confounding effects on the results. Subjects who agree to participate in studies are not as likely to have a sense of time-urgency or to be the competitive, hostile, coronary-prone individual who displays Type A behavior. Finally, constructs such as anxiety, competitiveness, and hostility are ill-defined, and clarification is needed in order to assess them accurately and understand them more fully.

Eysenck (1991) has also addressed the issue of inconsistencies and contradictory findings, noting that the inadequacy of the earlier, unidimensional view of Type A behavior and the need for more accurate assessment instruments have contributed to the problems in interpreting the results of earlier research. He called for a reassessment of the construct of coronary-proneness, with more emphasis on the individual's reaction to interpersonal stress and the part that anger, hostility, and aggression play in that reaction.

In summary, several reviews presented research findings which both confirm and fail to confirm a hypothetical relationship between certain personality

characteristics and cardiovascular disease. Some of the differences in findings are due to inadequacies of earlier formulations of behavior patterns and personality, inaccuracies in assessment instruments, and methodological differences among studies. In spite of these differences, there is enough evidence to suggest that a relationship between personality and disease may exist and that this possibility needs to be investigated further.

From a survey of current research, it appears that interest in global Type A behavior has begun to wane and that research concerning the relationship of hostility and coronary disease is now being conducted with healthy subjects in the area of cardiovascular reactivity.

Current Trends in Research: Studies of Cardiovascular Reactivity

Suarez and Williams (1990) examined the effect of harassment on cardiovascular reactivity and the dimensions of hostility and anger which were more strongly associated with cardiovascular reactivity. Subjects included 53 males with a negative parental history of cardiovascular disease whose Hostility scores on the Cook-Medley Scale of the Minnesota Multiphasic Personality Inventory were above 23 or below 14. Subjects were randomly assigned to harassment and non-harassment conditions, a hostile versus a courteous experimenter, while performing a mental task involving anagrams. Systolic and diastolic blood pressure, mean arterial pressure, and heart rate were measured during the experiment. Subjects were classified according to a tendency toward anger expression (Antagonistic Hostility) or suppression (Neurotic Hostility). Anger, irritation, and tension were positively

and significantly associated with cardiovascular changes in subjects with high hostility scores. Antagonistic hostility scores were more strongly predictive of increased cardiovascular arousal than neurotic hostility scores, leading the authors to conclude that openly hostile individuals run a greater risk for cardiovascular hyperreactivity and may be more susceptible to the development of coronary heart disease, while individuals who suppress or deny their anger may be at greater risk for hypertension.

Russek and her associates (Russek, King, Russell, & Russek, 1990) reported the results of a 35-year prospective study initiated in 1952. This study was designed to determine whether certain patterns of response under stress might be predictive of future health status. Subjects included 116 former Harvard University students who were subjected to persistent harassment by the experimenter while performing mental arithmetic tasks and sonic confusion (delayed feedback) while reciting a memorized story. Systolic and diastolic blood pressure, heart rate, and the height of cardiographic waves were measured. The subjects were interviewed and encouraged to express their feelings about the experiment, and ratings of behavioral stylistic, feelings reported (anger, anxiety), direction of anger reported (anger-in, anger-out), and clinical impressions were recorded. In all three experimental situations, subjects displaying severe anxiety showed the least efficient behavior and had the most intense physiological reactions. In the 35-year follow-up, the incidence of coronary heart disease was 2.5 times higher among subjects who had displayed severe anxiety than among subjects who had not shown severe anxiety.

Suarez and his colleagues (Suarez, Williams, Kuhn, Zimmerman, & Schanberg,1991) conducted a study to determine whether total serum cholesterol (TSC) interacts with hostility and Type A behavior pattern to affect cardiovascular and neurohormonal responses in subjects performing a mental arithmetic task. They hypothesized that Type A and highly hostile subjects with high levels of cholesterol would exhibit greater physiological reactivity to the task. Type A behavior was determined, and Hostility was measured using the Cook-Medley scale of the Minnesota Multiphasic Personality Inventory. Cardiovascular and hormonal levels were determined for pre-task and task periods for twenty-four healthy subjects. High levels of cholesterol were positively related to increased neurohormonal and heart rate responses to the task only in Type A and hostile subjects, leading the authors to conclude that differences in reactivity may play a role in the heightened risk of coronary disease among hostile Type A men.

However, research findings regarding physiological correlates to hostility have been inconsistent. Sallis and his associates (Sallis, Johnson, Trevorrow, Kaplan, & Hovell, 1987) studied the relationship between clinical hostility and blood pressure reactivity. Blood pressure was measured during 2 physiologic assessment sessions, and 76 subjects judged to be healthy were selected for the study. Cynical hostility was assessed using the Cook-Medley Hostility Scale of the Minnesota Multiphasic Personality Inventory. The subjects were presented with 2 stress conditions, a mental arithmetic task and a cold pressor task in which the subject's arm was immersed in ice water, and blood pressure was measured at several intervals. Only

one significant relationship emerged: hostility was inversely associated with recovery diastolic blood pressure after cold pressor. The authors concluded that the data did not support the hypothesis that hostile persons have exaggerated blood pressure responses to stress.

Research on the Relationship of Personality and Emotion to Cancer

Cancer has become a significant health problem in the developed countries and is second only to cardiovascular disease in mortality rate in the United States. While cardiovascular disease has been declining in the past twenty years, recent evidence suggests that mortality due to cancer has increased at a rate of 1% per year in the United States in Britain. Exposure to some carcinogens is the result of culturally determined behavior patterns, such as smoking and diet. Other exposure, such as those related to occupation, industrial pollutants, and the general environment, are essentially beyond the person's control. There is evidence to suggest that psychosocial factors, such as emotion, stress, loss, social support, and personality are also related to cancer incidence (Cox & Mackay, 1982). It is clear that the etiology of cancer is a complex and difficult issue and that there are a number of risk factors which contribute to the development and progression of cancer. This paper will present evidence that personality and emotions may be among those contributing factors.

Early Formulations of the Relationship of Personality to Cancer

Physicians have made clinical observations about the possible link between emotion, personality, and cancer for centuries. In the second century, Galen observed that cancer occurred more commonly in women with "melancholic" and "sanguine" temperaments. Eighteenth century surgeon Richard Guy wrote that women who were prone to develop cancer were "of a sedentary, melancholic disposition of mind." In 1870, James Paget wrote: "we can hardly doubt that mental depression is a weighty addition to the other influences favoring the development of a cancerous constitution" (Greer, 1983, p. 535). In spite of the common belief that there were psychological precursors to cancer, there was little scientific interest in the possible relationship of personality to cancer until the 1950s. At that time, several studies aimed primarily at developing a psychodynamic framework for understanding cancer as a psychosomatic illness were conducted.

Tarlau and Smalheiser (1951) carried out a study exploring personality patterns in 22 married women, 11 with breast cancer and 11 with cervical cancer. Each subject completed an interview and the Rorschach Inkblot Test and made human figure drawings. Certain similarities were noted in both groups. The mother was described as the dominant parent in 20 of the 22 cases, and the father was either physically or psychologically unavailable to the patient during childhood. Patients experienced disturbances in sexual identity and reacted to the onset of menses with feelings of fear, disgust, and shame and described heterosexual relations as painful, disgusting, immoral, and lacking in pleasure. There were also significant

differences in the 2 groups. Breast cancer patients were less willing to acknowledge their inner drives and used repressive mechanisms to inhibit their emotional reactivity and to minimized awareness of their inner life. They tended to be emotionally blocked and to display a considerable amount of confusion and repression regarding sexual roles and feelings. Cervix patients were found to be in greater contact with their thoughts and feelings and to experience greater emotionality, especially anger. Their sexual conflicts were closer to consciousness, and they tended to display paranoid traits and extreme hostility, often seeing men as passive and weak and women as strong and aggressive.

Bacon and her associates (Bacon, Renneker, & Cutler, 1952) made dynamic evaluations of 40 breast cancer patients based on interviews. They found that breast cancer patients tended to have a masochistic character structure, to be inhibited sexually, to have difficulty dealing appropriately with anger, to display a pleasant facade, and to have an unresolved hostile conflict and negative feelings toward their mothers, which they handled through denial and unrealistic sacrifice.

Blumberg and his colleagues (Blumberg, West, & Ellis, 1954) examined the characteristics of 50 male veterans who were receiving radiation or pharmacological treatment for inoperable cancer. They administered standardized and projective tests including the Minnesota Multiphasic Personality Inventory, the Rorschach, the Thematic Apperception Test (TAT). Patients who died in 2 years were compared to patients who survived more than 6 years. Patients with a faster progression tended be overly cooperative, excessively anxious, passive, apologetic, sensitive, more

depressed, and restricted in terms of emotional expression than patients with a slower progression.

Reznikoff (1955) compared the maternal experiences and heterosexual adjustment of 25 women with breast cancer, 25 women with non-malignant breast disorders, and a control group of women free of breast disease. The subjects completed the TAT, a sentence completion tests, and a questionnaire immediately after their physical examination but before learning their diagnosis. Cancer patients were found to have had authoritarian fathers and submissive mothers and to have had excessive responsibilities as children. They were often over 35 years of age when they married, and their marital adjustment tended to be poor. Cancer patients tended to confine their interests to the home, to "mother" their husbands by catering to their wishes, and to develop few interests outside the home. Although they were dissatisfied with their home life, cancer patients lacked the independence or assertiveness to change their situation and they tended to be consoling and protective. They were also more fearful of pregnancy and the birth process and felt more ambivalent about accepting parenting responsibilities.

Using the Rorschach Inkblot Test, Fisher and Cleveland (1956) investigated the body-image fantasies of 59 patients with cancer involving the exterior of the body (cancers of the skin and breast), 30 patients with cancer affecting the internal organs (cancer of the colon, lung, stomach, and cervix), and 28 patients who had undergone colostomies because of colon cancer and had lived for 10 years without a recurrence of cancer. Patients with body-exterior cancer had a greater tendency to

conceive of their bodies as being enclosed by an impenetrable boundary than patients with interior cancers or those who had previously had colon cancer. The authors interpreted the difference in body image as reflecting a basic difference in personality orientation which played a significant role in determining the site of the development of cancer in an individual.

In contrast to the burgeoning interest in the relationship of personality and cardiovascular disease, there was comparatively little interest in the 1960s and early 1970s in exploring that possibility in relation to cancer. An exception to that was work by David Kissen (Kissen, 1963, 1967), who had begun to investigate psychological factors in lung cancer patients. As he worked with male lung-cancer patients, Kissen noticed that their behavior was characterized by a "significantly diminished outlet for emotional discharge" (Kissen, 1963, p. 27) and a tendency to suppress or conceal their emotional difficulties. To test these hypotheses, Kissen administered the Maudsley Personality Inventory and a clinical questionnaire which was presented in the form of an interview. Subjects included 335 patients who had been admitted for diagnosis and treatment at 3 chest clinics, who were unaware of their diagnosis at the time of the interview. The interview was designed to determine if the patient had a history of childhood behavior disorders and to assess attitudes toward interpersonal relationships and the tendency to either suppress or discuss emotional problems, all considered indications of the subject's capacity for emotional discharge. Fewer lung-cancer patients had a history of childhood behavior disorders and more were found to suppress or conceal their emotional

problems than patients with non-cancerous disorders. These were both indications of diminished emotional discharge.

In an extension of the previous study, Kissen (1967) interviewed 930 male patients who had been admitted to the hospital with chest complaints for diagnosis and treatment. As in the previous study, patients were given the Maudsley Personality Inventory and the structured questionnaires before learning of their diagnosis. Adverse conditions in childhood, especially living in an alcoholic home, and ongoing adverse adult life situations were significantly more common among patients who had developed lung cancer. Lung cancer patients typically absorbed emotional conflict, reporting problems in a factual manner, not as disturbing or upsetting events.

Abse and his colleagues (Abse, Wilkins, Van de Castel, Buxton, Demars, & Brown, 1974) hypothesized that extensive repression would be evident in lung cancer patients through poor dream recall, and that lack of psychosomatic illnesses would indicate restricted expression of emotional conflicts. They also expected lung cancer patients to have difficulties in self-assertion, dependency, and interpersonal relationships. Fifty-nine male patients, who were similar in terms of their cultural, and educational background, were interviewed at the time of their admission to the thoracic surgery ward of a hospital for chest complaints and before their diagnosis had been determined. Audio-visual recordings were made, and the interviews were rated according to standardized scoring criteria. Cancer patients were found to remember significantly fewer dreams and to report fewer psychosomatic illnesses,

but there were no significant differences in assertiveness, degree of dependency, or quality of interpersonal relationships between cancer patients and controls.

Grissom and her associates (Grissom, Weiner, & Weiner, 1975) attempted to determine whether recent life crises and self-concept were associated with increased cancer incidence. Subjects included 30 lung cancer patients, 30 emphysema patients, and 30 controls. Subjects were given two questionnaires, the Recent Life Changes Questionnaire and the Tennessee Self-Concept Scale. Cancer patients were found to have a poorer self-concept, to display a defensively high view of his moral-ethical self, and to deny having anything to worry about in spite of his illness.

In summary, the results of these early retrospective studies support the view that cancer patients tend to suppress their emotions, deny their problems, and to be passive and compliant. Breast cancer patients appeared to have sexual conflicts and to have had disturbed relationships with their parents which originated in childhood and were never satisfactorily resolved. However, most of the early studies were limited by methodological flaws and possible confounding variables. Many of the studies relied on small samples and employed projective techniques rather than objective personality instruments. Because many studies were retrospective and cross-sectional in design, it was impossible to determine the antecedent-consequence relationships of the variables to disease and conclusions based on comparisons of disparate groups were limited. Even in studies which report data gathered from subjects prior to diagnosis, results might have been influenced by behavioral and verbal cues from the medical staff or by suspicion of malignant disease due to the

severity of symptoms. Research carried out since 1960 has been more systematic and has contributed to a clearer understanding of the possible relationship of personality to cancer.

Research Concerning the Relationship of Personality, Emotion, and Cancer since 1960

Since in the mid-1960s, interest in cancer research has gradually increased, and research concerning the relationship of psychosocial factors and cancer has proceeded along several lines. There have been a number of prospective studies which have explored the relationship of premorbid psychosocial characteristics to cancer incidence. A number of cross-sectional studies have compared psychosocial characteristics of cancer patients with non-cancer controls. Longitudinal studies of individuals diagnosed with cancer have been conducted to determine if psychosocial factors are related to disease progression and survival time. Predictive and prebiopsy studies have examined the psychological characteristics of individuals with lumps or lesions suspected of being cancerous before biopsy and have compared predictions with post-biopsy outcome. Several research teams have conducted retrospective and prospective studies and have attempted to define and test the validity of a construct known as 'Type C,' which is believed to predispose individuals to develop cancer. Finally, a number of psychobiological models have been proposed.

Prospective Studies

Hagnell (1966) was one of the first researcher to publish a report of findings from a prospective study of cancer incidence. In a 10-year survey begun in 1947, 2550 inhabitants of Sweden were assessed for intelligence, stability (emotional control), solidity (lability and suggestibility), and validity (energy, confidence, and forcefulness). While no relationship was found between capacity, solidity, or validity and the onset of cancer, an association was found with "substability," (p. 850) which was described as being characterized by heartiness, concreteness, industriousness, sociability, personal warmth, and inhibition of emotional expression when depressed.

In the Precursor Study involving students at Johns Hopkins University, Thomas and her associates (Thomas & Greenstreet, 1973) analyzed physical and psychological variables to determine which were associated with the subsequent development of 5 diseases, including coronary heart disease and cancer. Subjects developing cancer did not score the highest on any of the 23 variables, but did score the lowest for depression, anxiety, and anger, demonstrativity, matriarchal dominance, and closeness to parents. In an analysis of the human figure drawings (Harrower, Thomas, & Altman, 1973), the drawings of subjects who subsequently developed malignant tumors were found to have arms in different positions and direction, reflecting ambivalence and conflict, five times more frequently than controls.

Dattore and his associates (Dattore, Shontz, & Coyne, 1980) selected 200 Minnesota Multiphasic Personality Inventory profiles which had been collected over a period of 9 years from veterans. Records were accepted only for individuals without a history of significant medical or psychiatric diagnosis or treatment at the time of testing and were subsequently classified into cancer and noncancer groups. Individuals who subsequently developed cancer were significantly more repressed, and were significantly less willing to acknowledge feelings of depression.

Grossarth-Maticek and his colleagues (Grossarth-Maticek, 1980; Grossarth-Maticek, Bastiaans, Kanazir, 1985) investigated the relationship of psychosocial risk factors to mortality in a prospective study of 1353 inhabitants of Crvenka, Yugoslavia. This study was based on the hypothesis that psychological stress associated with the suppression of emotion may be dealt with in one of two ways. It is either internalized and transformed into physical symptoms which act as substitutes for needs and satisfactions, or it results in behavioral actions, such as changes of in diet, substance use, and the ignoring or denial or symptoms. According to Grossarth-Maticek, the interaction of psychological factors relating to personality, behavioral patterns, and situational factors determines the individual's susceptibility to disease. He hypothesized numerous negative life events, long lasting depression and feelings of hopelessness, and a tendency toward rationality and "anti-emotionality" (1985, p. 168) would predispose an individual to developing cancer.

Subjects completed interviews using a 109-item psychosocial questionnaire, designed to assess depression, anxiety, emotionality, anger, denial, and a number of other dimensions, and several physiological measures were taken. A follow-up of health status was conducted ten years later in 1976. The psychosocial risk factor which showed the strongest relationship to mortality was rationality and antiemotionality (R/A). The incidence of cancer among individuals who answered positively to 10 or 11 of the 11 R/A items was 40 times greater than the average subject, who answered positively to an average of 3. Chronic hopelessness, need for harmony, and minimization of symptoms were also associated with the development of cancer. Based on a psychological profile emphasizing the psychological characteristics of antiemotionality, chronic hopelessness, need for harmony, and use of denial, predictions were made as to the likelihood of cancer incidence, with a 78% success rate in predictions.

In a 30 year follow-up of the of subjects participating in the Precursor Study at Johns Hopkins University, Shaffer and his associates (Shaffer, Graves, Swank, & Pearson, 1987) analyzed 14 personality measures obtained from 972 of the original subjects using a two-stage cluster analysis procedure. The object of the analysis was to form homogenous groups of subjects who shared characteristics and to determine if the cumulative incidence of cancer differed for each group. The analysis yielded 5 groups along the following dimensions: Bland-Normal, Healthy-Sensitive, Acting Out-Emotional, Loner-Lacking in Expected Interests, and Interpersonal Conflicts. Subjects in the Loner cluster had the highest incidence of

cancer, with subjects in this cluster being 16 times more likely to develop cancer than members of the Acting Out-Emotional cluster.

The results of these prospective studies adds support to the assertion that persons who tend to deny their problems and suppress their emotions are at greater risk for developing cancer. Some prospective studies have provided contradictory results regarding the relationship of depression to the onset of cancer.

Using the Depression Scale of the Minnesota Multiphasic Personality Inventory, Shekelle and his colleagues (Shekelle, Raynor, Ostfeld, Garron, Bieliaskas, Liu, Maliza, & Paul, 1981; Persky, Kempthorne-Rawson, J., & Shekelle, R, 1987) conducted 17-year and 20-year follow-ups of men employed at the Western Electric Company who had participated a prospective study between 1957 and 1958. At both follow-ups, depression at baseline was associated with a twofold increase in mortality due to cancer. Twenty-four per cent of the men who developed cancer had high Depression profiles.

Kaplan and Reynolds (1988) conducted a prospective study to determine if the presence of depressive symptoms was associated with increased cancer incidence among 6848 healthy adults participating in a survey of health status conducted by the California Department of Health Services. Depressive symptoms were assessed using a self-report questionnaire which had been used in an earlier survey. While there was an association between high levels of depressive symptoms at baseline and overall mortality, there was no significant association between depression and either cancer incidence or cancer mortality at a follow-up conducted 17 years after the

initial evaluation. There was, however, increased risk for cancer incidence and deaths among individuals who were described as socially isolated.

Zonderman, Costa, and McRae (1989) reported the results of a prospective study in which medical risk factors and psychological data were gathered as part of the National Health and Nutrition Examination Survey. Subjects included 6813 subjects who completed two questionnaires which assessed general well-being and depression. Beginning in 1981, medical outcome data and morbidity data were collected and coded on the original samples, and subjects again completed a questionnaire on well-being and depression. No significant associations between depression and cancer morbidity or mortality were found at a 10-year follow-up.

While evidence from prospective studies suggests that psychological factors, especially personality and coping style, may contribute to the etiology of cancer, it is not clear what part depression plays. One of the factors which makes interpretation of these results difficult is the use of different assessment instruments to assess depression and other psychological variables. Some of the studies employed non-standardized interviews for gathering data and subjective criteria for assessing personality variables, and others used newly developed instruments whose reliability and validity had not been established. These methodological limitations make the comparison of results difficult.

Retrospective Studies

Cross-sectional Studies

A number of studies have been carried out in which the psychosocial characteristics of cancer patients have been compared with those of non-cancer controls.Jansen and Muenz (1984) compared the personality characteristics of women with breast cancer, women with fibrocystic disease, and women with no known history of breast disease. The subjects in this study included 72 healthy women, 69 women with breast cancer, and 82 women with fibrocystic disease. Each woman participating in the study completed a battery of psychological tests to assess motivation, autonomy, locus of control, anxiety, depression, hostility, Type A behavior pattern, and substance use. Women in the breast cancer group reported more feelings of depression and less feelings of aggression than women with fibrocystic disease or no disease. Women with breast cancer described themselves as timid, calm, easy going, non-assertive, non-competitive, as suppressing anger, and as being less demonstrative, less aggressive, and less expressive than women with fibrocystic disease or healthy women.

Hughson and his colleagues (Hughson, Cooper, McArdles, & Smith, 1987) compared psychosocial variables in 91 patients awaiting breast biopsy and 30 women awaiting elective cholecystectomy. Subjects completed interviews and several standardized instruments, including The Eysenck Personality Inventory. Patients with cancer reported significantly less symptoms of depression and less anxiety than patients with benign breast disease or gall-bladder disease.

A psychological trait analysis of Indian women with cancer was conducted by Kapoor and her associates (Kapoor, Ahmad, & Ahmad, 1987). Subjects included 25 female cancer patients and 25 healthy female controls who were similar in terms of age, socioeconomic status, and education. The subjects completed a questionnaire designed to measures a number of personality traits. Cancer patients were found to be more aloof, more easily upset but more able to control and bind their anxiety, more submissive and conciliatory, more serious, more suspicious and resentful, and less secure than controls.

Faragher & Cooper (1990) conducted a quasi-prospective study of Type A behavior in 1891 women attending breast-screening clinics and a group of controls. Subjects were asked to complete a questionnaire designed to obtain information about demographics, life-events, and Type A behavior pattern, before learning their diagnosis. Women with cancer tended to display less Type A behavior, to be less competitive or ambitious, and less able to express their feelings than women in the control groups. They were also less interested in gaining personal satisfaction and had fewer interests outside the home or work environment.

Kune and his associates (Kune, Kune, Watson, & Bahnson, 1991) studied personality as a risk factor in subjects who were participating in the Melbourne Colorectal Cancer Study. Subjects included 6377 confirmed new cases of colorectal cancer and 714 community controls matched for age and sex. A psychosocial questionnaire designed to assess object loss and unhappiness in childhood, denial and repression of negative emotions, commitment to conformity, suppression of

offensive reactions, avoidance of conflict, and reactions to feelings of anger, was administered in 2 separate personal interviews. Colorectal cancer patients were found to have experienced significant loss and unhappiness in childhood and to have a personality profile which included denial and repression of negative emotions, a commitment to exhibiting the external appearance of being a 'good' and 'nice' person, conformity, avoidance of conflict, and suppression of offensive reactions.

Longitudinal/Progression Studies

Several studies have explored the relationship of psychosocial factors to disease progression and survival time. Stavraky (1968) studied the personality characteristics of 204 cancer patients classified according to site and stage of disease and survival time. Several assessment instruments, including the Minnesota Multiphasic Personality Inventory, were used to assess the subjects' personality and level of intelligence, and subjects were classified according to least and most favorable according to survival time within each site-stage group. Twenty-three patients with the longest survival were compared with 30 patients with the shortest survival and 90 stage-matched controls. Individuals who had the most favorable prognosis were reasonably well-integrated persons with considerable underlying hostility who did not experience loss of emotional control.

Rogentine and his colleagues (Rogentine, Van Kammen, Fox, Docherty, Rosenblatt, Boyd, & Bunney, 1979) attempted to identify psychological variables which significantly differentiated patients who had recurrent malignant melanomas from those who did not. Subjects included 77 Stage I and Stage II cancer patients.

Assessment instruments included standardized self-report questionnaires about recent life changes, psychological symptoms, and locus of control, and a subjective life change score was computed on the basis of how much adjustment the subjects needed to cope with their disease. Subjects were rechecked one year later for recurrence, and nonrelapsers were found to have reported more life adjustment than relapsers. The authors interpreted this to mean that relapsers, who had low melanoma adjustment scores, were denying the importance of their disease, an indication of reduced emotional reactivity.

Derogatis and his associates (Derogatis, Abeloff, & Meliseratos, 1979) investigated the relationship between psychological factors and the length of survival in cancer patients. Subjects included 35 women who were receiving treatment for metastatic breast cancer and were part of a longitudinal study of the psychological impact of chemotherapy on patients with metastatic breast cancer. Subjects completed a structured interview to assess attitudes, expectancies, and psychosocial adjustment concerning the disease and its treatment, and were rated by the interviewer and their onconlogists in terms of overall psychological adjustment. Subject also completed standardized measures of psychological symptoms and mood. Long-term survivors, those who survived for one year or more, were rated as having a poorer adjustment to their illness, and they had higher levels of anxiety, hostility, depression, guilt, and psychoticism, and reported more psychological symptoms than short-term survivors. The authors concluded that the patients who

survived longer were more in touch with their negative feelings and were more capable of externalizing them.

Goodkin and his associates (Goodkin, Antoni, & Blaney, 1986) investigated the relationship of stress and hopelessness to the progression of cervical cancer in 73 female patients who were similar in socioeconomic, cultural, and educational background. Subjects completed a structured interview and several standardized measures of life experience, hopelessness, and psychological characteristics. Subsequent evaluations revealed that women who displayed uncooperative attitudes, social alienation, hopelessness, and somatic anxiety had a higher rate of cancer progression. This finding was in contrast to research which describes cancer patients as being cooperative, optimistic, rational, self-sacrificing, and constricted in affect.

These progression studies have yielded contradictory results. Once again, the use of different assessment instruments makes the comparison of results difficult.

Predictive and Prebiopsy Studies

Schmale and Iker (1960) examined psychological characteristics of 51 women who were scheduled to have a biopsy because of irregular Pap smears. The subjects completed an open-ended interview and a battery of psychological tests, including the Minnesota Multiphasic Personality Inventory. Predictions were made before the results of the biopsy had been determined, based on the patients' responses to significant life events within the previous 6 months. While health status was significantly related to the feelings of "giving up" prior to the onset of the disease,

and the number of correct predictions was significantly greater than chance, none of the Minnesota Multiphasic Personality Inventory scales was significantly associated with the onset of cancer.

Wirching and his associates (Wirsching, Stierlin, Hoffman, Weber, & Wirsching, 1982; Wirsching, Hoffman, Stierlin, Weber, & Wirsching, 1985) examined psychological characteristics of 56 women awaiting breast biopsy. Subjects were interviewed prior to the biopsy and their behavior and attitudes were rated along several dimensions. Predictions of expected diagnosis were made by the interviewer and an independent rater. The interviewer found it more difficult to establish rapport with women who were subsequently found to have cancer and described more than half of them as inaccessible or aloof. All of the distant subjects denied or refused to acknowledge their feelings, but 60% were overwhelmed by distressing emotions at some point during the interview. When the women were asked how they normally handled their feelings, all but one woman in the cancer group described themselves as rational and unemotional. The majority of cancer patient displayed less fear of the tumor and its consequences than women with benign tumors, and some were described as having a 'heroic' attitude. Over two-thirds of the women with cancer expressed extreme optimism about their progress after the operation, while the other third expressed despair. When asked if they expected help and support from others after the operation, almost all of the cancer patients insisted that they were self-sufficient and independent and that they did not need help from anyone. Women with cancer consistently denied their own

interests, tended to sacrifice themselves for others, and revealed an extreme need to be conciliatory and to avoid conflict. Eighty-three percent of the interviewer's predictions for cancer incidence were correct, and the independent rater predicted 94% correct. The authors concluded that suppression of anxiety, self-sufficiency, and optimism are reaction formations which cancer patients employ against underlying anxiety, helpless, and despair, to help them cope with extreme emotional distress.

Cappellari (1988) conducted a quasi-prospective study of 76 women who had been admitted for breast lump biopsy. Subjects completed standardized measures which assess trait and state characteristics of emotional suppression and hostility under stress. Breast cancer patients were found to suppress negative feelings of anger, anxiety, and depression, but there were no significant differences in state symptoms of hostility and irritability.

These predictive studies, along with research cited elsewhere in this paper (Rogentine et al, 1979; Grossarth-Maticek, 1980; Grossarth-Maticek et al., 1985; Temoshok, 1985; Jensen, 1987), have provided further evidence supporting the possibility that psychosocial factors contribute significantly to cancer incidence and/or progression.

Type C, Cancer-Prone Personality

At least two different research teams, one in Great Britain and one in the United States, have combined several different lines of research and have proposed that a third behavior pattern, known as the 'Type C' personality, is associated with

the increased risk of cancer incidence. From 1975 to 1985, Greer and his colleagues in Great Britain carried out a series of interdisciplinary studies of breast cancer (Greer,& Morris, 1975; Pettingale, Greer, & Tee, 1977; Morris, Greer, Pettingale, & Watson, 1981; Watson, Pettingale, & Greer, 1984). The studies were based on the hypotheses that disruption of the homeostatic regulation of cell growth and function contributes to the development and course of breast cancer and that psychosocial variables may be among the factors which disrupt homeostatic controls through the neuro-endocrine and immunological systems. Based on the findings of their research, Greer and Watson (1985) proposed the existence of the Type C behavior pattern which is associated with the incidence of cancer.

In the first study, 160 women admitted to the hospital for breast tumor biopsy underwent a series of immunological tests and completed structured interviews and a battery of psychological tests the day before surgery. Both the subject and her husband or a close relative were interviewed separately to collect information concerning a number of psychological variables. In addition, each subject completed the Eysenck Personality Inventory and other standardized measures of depression, intelligence, and hostility. Subjects were classified as extreme suppressors, extreme expressors, and normals, based on their emotional responses. There were highly significant differences in the degree to which cancer patients suppressed or expressed their emotions, especially anger. In most cases, cancer patients were characterized by extreme suppression of anger and other feelings, but

extreme expression of emotions, although less common, occurred in a higher proportion of cancer patients than controls (Greer & Morris, 1975).

In a second phase of the study (Pettingale, Greer, & Tee, 1977), venous blood samples collected the day before surgery, 3 months postoperatively and then annually, were analyzed for IgG, IgA, IgM, and IgE, which are antibodies that protect the organism against pathogens. Subjects were assigned to one of 3 groups: extreme suppressors, extreme expressors, and normal, on the basis of their emotional responses. Serum IgA levels were found to be significantly higher in patients who were judged to be extreme suppressors in comparison to those who could express their anger. Over the two years following the initial evaluation, serum IgA levels remained consistently higher in all patients who suppressed anger and were significantly higher in cancer patients at 3 months and 2 year following their operation. The authors proposed that chronic suppression of anger may produce metabolic alterations through the action of the hypothalamus and autonomic nervous system, resulting in increased secretion of IgA and reduced resistance to disease.

The third study (Morris, Greer, Pettingale, & Watson, 1981) involved testing 50 patients with no history of prior malignancy who were scheduled to undergo a breast biopsy. The subjects completed a structured interview designed to obtain information on emotional expression, the Eysenck Personality Inventory, and a measure of state and trait anxiety. Cancer patients reported experiencing feelings of anger and losing control of anger less often than patients with benign breast disease,

and younger cancer patients were found to report less anxiety and to use denial to cope with stress.

The fourth study in the series (Watson, Pettingale, & Greer, 1984) was designed to examine emotional and autonomic responses to stress under two experimental conditions. Subjects included 30 breast cancer patients who had undergone a mastectomy and displayed no evidence of recurrence and 27 women with no evidence of malignant breast disease. Experimental conditions included 2 stress videotapes, and a neutral videotape was used as a control. Initially, all subjects completed personality questionnaires designed to assess emotional control, trait and state anxiety, and repressive coping style. Physiological responses were monitored throughout the experimental procedure, and subjects completed analogue scales and questionnaires about their reactions to the films immediately prior to and after the viewing the videotapes. Breast cancer patients showed a significantly stronger tendency to become emotionally involved and to experience more anxiety during stress, but they were more likely to use a repressive coping style to hide their feelings and to control angry reaction than the control group.

Based on an accumulation of evidence that supported an association between the diagnosis of cancer and a behavior pattern characterized by overcontrol of anger, Greer and Watson (1985) presented an integrated psychobiological model of cancer. They asserted that 'Type C' behavior was characterized by suppression of emotional response, particularly anger, conformity and compliance, patience, and unassertiveness. On the basis of their findings, they suggested that emotionally

provoking situations are threatening to Type C individuals, who are often aware of their negative emotions but are constrained by their inability to use confrontation appropriately and by their tendency to pacify others by being compliant and unassertive, resulting in increased autonomic arousal and activation of endocrine and immunological responses. The Type C individual deals with stress by suppressing emotional behavior at the expense of increased physiological activation and decreased efficiency in the homeostatic control system. Greer and Watson stated: "Given the complexity of the human organism, it seems reasonable to postulate the existence of an integrated psychobiological control system, failure of which permits cancer --- once initiated --- to grow and disseminate...Our hypothesis is that, in some individuals, psychological factors contribute ---through interactions with biological homeostatic mechanisms--to promote certain cancers" (1985, p. 773).

While Greer and his colleagues in Great Britain were formulating their concept of the 'Type C' personality, Temoshok and her associates at the University of California (Kneier & Temoshok, 1984; Temoshok, Heller, Sagebiel, Blois, Sweet, DiCemente, & Gold, 1985; Temoshok, 1985; Temoshok, 1987) were also exploring the possibility that individuals with a repressive style of coping with anxiety-provoking emotions were at risk for developing cancer. A multidisciplinary group of researchers conducted a series of studies which led to the formulation of an operationally defined constellation of characteristics for the 'Type C' personality which were explained in terms of a stress-arousal-coping model.

The first study (Temoshok et al., 1985) involved 59 patients who had been diagnosed with Stage I or Stage II cutaneous malignant melanoma. Subjects completed a structured interview, the Minnesota Multiphasic Personality Inventory, and a battery of self-report instruments designed to assess social desirability, anxiety, depression, mood, and character style. Two histopathological measures were taken to assess the severity of the disease. An analysis of the data revealed that thicker, more invasive tumors were associated more with Type C (passive, appeasing, helpless) than Type A (controlled, active, impatient) behavior, with less narcissistic and less histrionic character styles, and with the belief that it is important to have faith in God and in the doctors. This led Temoshok and her colleagues to describe the Type C pattern as "a theoretical Type C constellation of attitudes, cognitive and emotional proclivities, verbal and nonverbal expressive patterns, specific coping strategies, and more general character styles that may describe persons for whom psychosocial factors play a role in the development and/or progression of their malignancies" (Temoshok, 1985, p. 834). More specifically, the Type C individual was described as a cooperative, unassertive person who accepts and complies with external authority and who suppresses negative emotions, especially anger.

In an attempt to better understand the emotional and coping reactions of cancer patients, a second study (Temoshok, 1985) was conducted using 60 melanoma patients as subjects. The same histopathic indices were used, and subjects completed an expanded structured interview and the same self-report measures used

in the first study and additional scales designed to measure repression and ego strength. Tumor thickness was less in individuals with adequate ego strength who expressed their emotions and who articulated their anger and sadness, leading Temoshok to conclude that these are important components of the Type C constellation.

The third study in the series involved a comparison of the coping styles of cancer patients, coronary heart disease patients, and disease free controls. Kneier and Temoshok (1984) hypothesized that Type C behavior is the polar opposite of the Type A behavior pattern and that Type Bs occupy an intermediate position on the continuum between the two extremes. They expected cancer patients to exhibit the most repressive coping pattern as measured by the discrepancy between reported versus physiologically manifested anxiety. Conversely, they expected cardiovascular disease patients to exhibit higher reported anxiety relative to physiological response and disease-free controls to fall somewhere between the two extremes. Subjects included 60 subjects, matched for ethnic origin, gender, age, and disease severity, with 20 subjects in each of 3 groups: malignant melanoma, cardiovascular disease patients, and disease-free controls. Subjects were shown a series of 50 anxiety-provoking statements and were asked to indicate the degree to which they were bothered by the statement, and skin conductance response (SCR) was monitored during the experimental procedure. The ratio of self-reported anxiety to skin conductance response reflected coping style. Subjects also completed four additional instruments as measures of repressive coping style,

anxiety, social desirability, and difficulty in adjusting to disease. Cancer patients exhibited significantly more repressive coping behavior in the experimental procedure and on 3 of the 4 measures than patients with cardiovascular disease or disease-free controls.

The fourth study in the series (Temoshok, 1985) was designed to explore the possible relationship between psychological variables and tumor and/or host response factors. Subjects included the 59 patients from the first study and the 60 patients from the second study. Tumor and host factors included mitotic rate (rate of tumor growth), lymphocytes (involved in regenerative process), macrophages (involved in the absorption and destruction harmful substances), and plasma cells (cells that produce antibodies in connective tissues). Desmoplasia, which is a late-stage host response in which a tumor is enclosed within fibrous connective tissue, was significantly and positively correlated with the expression of feelings of depression, dejection, anger, hostility, fatigue, and anxiety. In addition, emotional expression was negatively correlated with mitotic rate. The author suggested that expressiveness, especially of anger and sadness, may represent an adaptive coping response that has a positive effect on the immunologic system, activating cellular host response factors and inhibiting mitotic rate.

The next study (Temoshok, 1985) explored the possibility that psychosocial variables might discriminate patients with disease progression from matched controls. Sixteen of the 119 patients in the previous studies were matched for age, sex, histologic type, tumor thickness, and location of the tumor, with control

subjects who had no evidence of disease at 1.5 to 3 year follow-up examinations. Unfavorable outcomes were found to correlate with greater tension, anxiety, depression, dejection, anger, hostility, and confusion. These findings are in contrast to the findings of the previous study, in which greater emotional expressiveness was associated with increased host response and decreased tumor growth. Temoshok proposed that, while appropriate emotional expressiveness may enhance immunological functioning, excessive stress, anxiety, and dysphoric emotion may contribute to disease progression.

On the basis of these studies, Temoshok (1987) presented a "process model" of coping style and psychological-physiological homeostasis and proposed that the Type C coping style develops in the following way: A child learns to cope with the unavoidable traumatic events, stressors, and challenges of early life as the result of genetic predispositions and family interaction patterns. The coping style is successful to the extent that it provides biological, psychological, and environmental homeostasis, even under stress. The Type C coping style may begin as a conscious suppression of physical complaints in order to please others, and the results may be an unconscious pattern of ignoring and eventually not recognizing biological signals such as fatigue or pain. Similarly, when the child suppresses feelings of sadness, anger, loneliness, or fear in order not to antagonize or burden others, feelings become blocked and the child develops a style of relating that is accepting and appeasing.

The Type C individual has been described as a cooperative, unassertive person who suppresses his or her own needs and feelings in order to meet the needs of others. This individual is considered pleasant, friendly, helpful, and conciliatory, and is usually well-liked by others. According to Temoshok, the Type C individual is actually hiding behind a mask of self sufficiency, but remains unaware of that s/he is emotionally blocked because s/he is satisfied by the reflected acceptance and social rewards from the environment. However, chronically blocked expression of needs and feelings has negative psychological and biological consequences. The accumulation of needs and feelings which cannot be acknowledged or adequately expressed set the stage for the onset and progression of cancer (Temoshok, 1987).

Other Psychobiological Models

Levy and her associates (Levy, 1984, 1985; Levy, Herberman, Maluish, Schlien, & Lippman, 1985) have presented a psychobiological model based on research findings which suggest a physiological link between emotions and the progression of cancer. There is substantial evidence that a helpless response to stress is associated with the depletion of neurotransmitters, alterations in stress hormones, suppression of lymphocyte function and natural killer (NK) cell activity, reduced destruction of tumor cells, and reduced tumor cell sensitivity to NK activity (Levy et al., 1985). Levy (1984, 1985) has presented convincing evidence, citing both animal and human research, which suggests that feelings of helplessness and depression are associated with shorter survival and that feelings of anger and active coping strategies are associated with longer survival.

One study (Levy, 1984) was aimed at determining if breast cancer patients who responded to their illness with anger and other negative responses would survive significantly longer than women who responded in a more passive manner. Twenty-two women with recurrent breast cancer completed a checklist of psychological symptoms and were interviewed and rated by the interviewer. Biological and psychological assessments were made before the patients began treatment for recurrence and four weeks after treatment began, and their survival or death was noted at the end of 1 year. Patients were divided into 3 groups: those whose disease was stable, those in whom the disease was progressing, and those who had died. At the end of 1 year, patients in the stable groups were found to have reported significantly more unhappiness and distress than patients in the other two groups.

A second study (Levy, Herberman, Maluish, Schlien, & Lippman, 1985) investigated the predictive power of psychological, behavioral, and immunological factors (natural killer cell activity) to the prognostic risk status of breast cancer patients. Subjects included 75 women who had been diagnosed with Stage I or Stage II breast cancer who were participating in a randomized trial comparing the effectiveness of 2 different kinds of treatment. The interviewer and an independent rater assessed psychological variables using a standardized procedure, and each patients completed standardized measures of psychological symptoms and mood. A blood sample was drawn within 24 hour of the interview, and natural killer cell function activity was measured. Patients who were rated as well-adjusted and who

reported having depressive symptoms tended to have significantly lower NK activity. The authors noted the discrepancy between observers rating of adjustment and the patients' self reports. Those individuals who were rated as handling their immediate treatment situation in the most efficient manner were also those who reported the most discomfort. This is consistent with other models which indicate that cancer patients feel the need to present a facade of self-sufficiency (Temoshok, 1985) and a 'heroic' stance (Wirsching et al., 1982, 1985). The results of this study suggested that NK cells play a significant role in breast cancer progression. Levy et al. (1984) cited recent evidence that endogenous opoids perform a mediating role in suppressed natural killer cell activity and reduced tumor cell destruction and suggested that they may functions as the biological modifiers which link higher cortical function to the endocrine and immune systems.

Jensen (1987) proposed a psychobiological model of "brain-body disregulation" (p. 315) as the best explanation for the association of psychological functioning and the progression of disease. Disregulation theory assumes that a state of health within an organism depends on an orderly interaction between the neurochemical processes in the organism's systems and that the brain serves an important function in the regulation of all behavior. It further states that loss of attention to physiological signals prevents the organism from maintaining homeostasis. Jensen hypothesized that an individual with a repressive personality would show a poorer disease outcome due to less awareness of and response to bodily signals.

Applying the disregulation theory to neoplastic disorders, Jensen conducted a prospective study examining the association of psychological factors to cancer progression over 624 days. Three groups of women participated in the study: 27 women treated by mastectomy, chemotherapy, and radiation who had suffered metastasis or recurrence, 25 women who had received the same diagnosis but were in remission, and 34 healthy women who had been seen at a clinic for minor surgery. Psychological variables were assessed using several self-report instruments. Subjects were matched for a number of physical, cultural, and social variables, as well as stage and site of the disease, and were classified as Repressors, Defensive High-Anxious, and Low-Anxious.

Cancer was associated with repressive personality style, helplessness and hopelessness, chronic stress, and inhibited expression of negative affect. Repressors were found to be less introspective and more deceptive to themselves and others and were more likely to act in a calm and confident manner, to appear unconcerned about their problems, and to be more concerned about conforming and appearing cooperative than in solving their problems or expressing their feelings. They were less likely to be pessimistic or moody, to complain about their health, or to acknowledge stress or emotional vulnerability. A follow-up period revealed that, of eleven participants who died during the course of the study, 8 were classified as Repressors. Repressive personality style was also found to be a significant predictor of duration of remission and of progression of the disease process. On the basis of these findings, Jansen concluded that a repressive personality style results in

inattention to the body's signals of distress which are necessary to maintain homeostasis among the biophysiological processes and contributes significantly to the progression of breast cancer.

Theories Incorporating Personality and Disease

Bahnson has proposed the theory of "psychophysiological complementarity" (Bahnson, 1969) to account for the disease process. According to Bahnson, there are two main channels for discharging drives, needs, and tension: by acting on the environment, either through physical action or fantasy, or by dissociating the drive representation from thought, feeling, or action through somatic discharge. Both defenses are considered regressive, and the choice of behavioral or somatic regression is related to the type of ego defense utilized by the individual. While projective defenses involve interpersonal discharge, denial and repression result in somatic discharge. Bahnson reasoned that when a significant loss is experienced by an individual, the ensuing changes in the central and autonomic nervous systems may cause biochemical reactions which reduce biological defenses against carcinogens.

Bahnson hypothesized that cancer patients would utilized projection less than patients with MI or normal controls. He tested his hypothesis with a sample of 30 male cancer patients, 33 male myocardial infarction patients, 26 men hospitalized for a variety of illnesses and accidents, and 64 healthy controls. Adjective check lists describing the environment were completed by the subjects before and after an experimental procedure which involved listening to neutral stimuli (clicking sounds

referred to as "white noise"). Cancer patients described the environment as being more positive and less threatening than other subjects, and Bahnson attributed this result to a tendency among cancer patients to use projection less and to repress and deny unpleasant and threatening emotions. (Bahnson & Bahnson, 1966, 1969).

Bahnson (Bahnson, 1969, 1980, 1981; Bahnson & Bahnson, 1966, 1969) carried out a number of studies designed to explore the coping patterns and personality structure of cancer patients by examining their the ego defenses. In a series of studies involving 79 cancer patients, Bahnson used unstructured interviews, structured questionnaire interviews, and projective tests to explore ego defenses and to investigate the possibility that early loss could be involved in the etiology of cancer. He found that most cancer patients had experienced very close attachments early in life and had not been able to resolve early dependency needs and that they tended to repeat dependent childhood patterns in adulthood. He also found that they attempted to cope with conflict through denial and repression, which caused them to become constricted and to feel emotionally depleted and empty (Bahnson & Bahnson, 1966).

Bahnson attempted to understand how loss may contribute to the onset of cancer. In one study (Bahnson, 1981), a questionnaire designed to assess parent-child relationship was used to compare cancer patients to patients with myocardial infarction and a normal group matched for age. Bahnson hypothesized that individuals from families that emphasize inner directedness and foster denial and repression may be cancer-prone, while individuals from families that stress the

importance of fulfilling social norms and striving for success may be prone to develop coronary heart disease. Cancer patients were found to perceive their parents as more rigid and stereotypical, more cold and neglecting, less loving, and less protecting and rewarding than either coronary patients or normals. Many of the cancer patients had experienced intense feelings of unhappiness and despair during childhood because of unsatisfying relationships with their parents and had learned to use repression and denial to defend against feelings of ambivalence and rage.

Bahnson proposed that repressive defenses were learned early in the "centrifugal family pattern" (Bahnson, 1980, p. 979), where early individuation, distancing, and mutual isolation were common and where there was little expression of affection or shared experience among family members. The child learns to maintain equilibrium through denial and repression of his or her own needs and feelings in order to accommodate to the demands of the family. These individuals felt neglected and deprived as children, and struggled to satisfy their extreme need for closeness by attempting to establish an emotional relationship with a spouse. A loss in adulthood of a significant relationship reawakened the original feelings of despair and hopelessness of the deprived and longing child and resulted in the individual's withdrawing, turning to inner resources instead of social affiliation to meet their needs.

In another study (Bahnson, 1981), 40 women with breast cancer and 40 matched controls were asked to complete a psychosocial questionnaire, and a discriminant function procedure was used to sort and predict whether or not the

subjects had cancer. Cancer patients were found to repress or suppress aggressive feelings, to deny fears and phobias, to be unaware of physical phenomena such as a pounding heart under stress, to deny feelings of loss or tension, to feel isolated, and to have rigid moralistic religious attitudes, and 77 of 80 subjects (96%) were classified correctly.

Bahnson proposed that the central nervous system, the endocrine system, and the immune system are involved in a complex interaction which leads to the onset of cancer. After presenting a review of research involving stress and these 3 systems, he concluded: "When we conceive of the neurologic, endocrine, and immune systems as an integrated whole, it is possible to understand how nervous system responses to environmental or intrapsychic perceptions may activate several endocrine processes which, in turn, influence the continuously active immune system" (1981, p. 219). He called for more research to clarify the relationships between life events, emotional reactions, ego defenses, and physiologic processes which might lead to disease.

Eysenck has also proposed a theory to account for the relationship of personality to disease. He has presented a comprehensive typological system (Eysenck, 1985, 1987a, 1987b, 1990, 1991) designed to predict cancer and cardiovascular disease in individuals who experience interpersonal stress and react to it in certain ways. According to Eysenck, stress can only be understood in terms of its meaning to the individual, and meaning is influenced by the individual's personality. According to this system (Eysenck, 1990), there are four basic

patterns. Type 1 (cancer-prone personality) includes individuals who are unable to achieve a close relationship with an important love object and are continually traumatized by the simultaneous need to be close and inability to achieve the desired closeness. These individuals display a lack of autonomy, and experience their failure to achieve the desired closeness in terms of hopelessness and helplessness. Type 2 (coronary-prone personality) consists of individuals who are also dependent on a love object, but the relationship is experienced as a constant source of irritation, because the individual can neither possess nor relinquish the loved one. These individuals are unable to disengage themselves from the source of irritation and react with arousal, anger, and aggression. Type 3 (hysterical personality) consists of individuals who are also dependent on a love object and shift between the first two kinds of reaction, alternating between feelings of hopelessness and helplessness and feelings of arousal and anger. Type 4 (healthy, autonomous personality) consists of individuals who consider their own autonomy and the autonomy of others to be important for their own sense of happiness and well-being. According to Eysenck, the personality traits associated with cancer and cardiovascular disease are at the opposite ends of a continuum, and persons at risk for cardiovascular disease are not at risk for cancer and vice versa (Eysenck, 1985).

Three major prospective studies (Eysenck, 1985) were undertaken to test these hypotheses. Subjects for the first study consisted of 1026 residents between with an average age of 60 in Crevenka, Yugoslavia. The second group, considered the normal group, consisted of 872 citizens of Heidelberg, Germany, and the third

group, consisted of 1273 Heidelberg citizens who were nominated by members of the second group as being "highly stressed" (Eysenck, 1990, p. 33). A structured interview was constructed based on the typological model and was administered to a random sample of healthy subjects in each of the 3 populations, along with other information concerning smoking, drinking, blood pressure, blood sugar, and cholesterol. The surviving subjects were interviewed 10 years later, and the cause of death was determined from death certificates of deceased subjects. Among the Yugoslavic subjects, 46.2% of those dying with cancer had been classified as Type 1, compared to 5.6% classified as Type 2, 1.8% as Type 3, and .6% as Type 4. Among individuals deaths from infarct or stroke, 29.2% were classified as Type 2, compared with 8.3% for Type 1, 9.2% for Type 3, and 1.7% for Type 4. The same patterns were found among the Heidelberg subjects, with "stressed" subjects dying more frequently than "normals". When other risk factors, such as blood pressure, smoking history, and blood cholesterol, were controlled, personality type was found to be 6 times as important as the other variables (Eysenck, 1987b,1991.)

Eysenck concluded that personality is one of many possible risk factors which combine in a synergistic fashion to produce disease. He asserted that both personality and the immune system can be affected by the central nervous and endocrine systems, and that the connection between personality and cancer is mediated by ACTH, endogenous opoids, and cortisol (Eysenck, 1987b).

In summary, both Bahnson and Eysenck have carried out studies involving subjects who suffered from or developed cardiovascular disease and cancer. Based

on their research findings, they both concluded that there were significant differences between the two patients groups and between diseased and healthy subjects. They both traced the vulnerability to disease to unsatisfactory relationships in the past and suggested that the immune, endocrine, and central nervous systems were all involved in the etiology of disease.

Is Personality Related to the Development of Cancer?

Over the last decade, there have been several reviews aimed at determining if psychological factors play a major role in the onset and progression of cancer. While concluding that research findings do support such an assertion, Greer (1983) noted the methodological limitations of previous studies and emphasized the importance of establishing stringent methodological requirements for future research.

Cooper (1984) examined the evidence that linked personality predisposition and adverse life events to the onset of cancer. He also noted that previous studies had been limited in a number of ways, including the lack of adequate or appropriate control groups, vague definitions of psychological factors and poor descriptions of methodology, the use of assessment instruments which had not been sufficiently validated, and subjective data gathering techniques which were relied too heavily on the patients memory and the relationship between the interviewer and the patient. In spite of these limitations, Cooper concluded that there was sufficient evidence to suggest that a relationship may exist and that future research in this area should be seriously considered.

Cunningham (1985) presented an extensive review of the literature and concluded that, by ignoring the possible influence of the mind on cancer, the biomedical community would be committing a "Type II error" (p. 24). He suggested that, because of the limitations of retrospective designs, prospective and progress studies would be more valuable, and he proposed that building a profile of psychological risks might be useful. He further recommended conducting controlled studies of the effects of psychotherapy on the disease process.

Hiller (1989) traced the research on the possible role of psychological factors in the etiology of breast cancer from a feminist perspective, citing numerous methodological limitations of previous research. She argued that claims of a relationship between psychological characteristics and the onset of disease tend to "blame the victim" (p. 16) and that the source of interest in this relationship was influenced by negative attitudes toward women rather than real evidence.

Levenson and Bemis (1991) reviewed research on the relationship of depression, coping style, personality traits, stressful life events, and psychosocial intervention to cancer. They concluded that, while psychosocial factors may make a small contribution to cancer onset, cancer progression is significantly affected by psychosocial variables. They suggested that future research should be aimed at understanding the relationship of psychosocial variables to cancer progression and survival. They further recommended that future studies needed to be more systematic, controlling for staging, confounding variables, and the type of cancer and treatment.

In summary, none of these reviews refuted the possibility that psychological factors may be related to the disease process. They all emphasized the limitations of previous research and called for more specificity in terms of the definition of variables, assessment instruments, and methodological design.

Conclusion

A review of the literature strongly suggests that aspects of personality, especially those involving the experience and expression of emotion, may be contributing factors in the etiology and progression of both cardiovascular disease and cancer. The aim of the current study is to explore the experience and expression of anger in women with cardiovascular disease and breast cancer using a phenomenological approach, with the expectation of obtaining a clearer understanding of the similarities and differences in the experience of this powerful emotion in these two groups.

CHAPTER 3

METHODS AND PROCEDURES

Research strongly suggests that chronic psychological distress has a deleterious effect on health. Problems in the expression of emotion have been found to contribute to psychological distress and are associated with the development and progression of the disease process. Numerous quantitative studies have been conducted comparing patients with cancer and cardiovascular disease, and emotional expression has been found to be different among patients with these two diseases. Patients with cancer have been found to repress and suppress their emotions, especially anger, whereas patients with cardiovascular disease have been found to experience their emotions more readily.

Research conducted using traditional scientific methods is aimed at producing knowledge that allows one to predict and control phenomena, while phenomenological research seeks description of the phenomenon. The basic tenets of the phenomenological approach include putting all presuppositions aside, obtaining data thorough descriptions of experience, and analyzing experience in such a way that the essential meanings and structure of experience can emerge. To do this, the phenomenological investigator must become immersed in the phenomenon under investigation through repeated exposure to accounts of the experience. The researcher must return to the data over and over again to determine if descriptive formulations are consistent with the data, and any formulation found to be invalid is

discarded. The close contact between the phenomenological researcher and the data and his or her commitment to remain faithful to the phenomenon as it is lived are important factors as to why this approach offers a richer understanding of human experience. The findings of phenomenological studies of emotion (Fishcher, 1978; Stevick, 1971; Frankel, 1985) and illness (Rawlinson, 1982; Buddenhagen, 1984; Fernandez, 1992; Hunt, 1992) have revealed consistent themes and support the use of the phenomenological approach as a valuable method for exploring the life-world of individuals with serious disease.

Purpose of the Study

The purpose of the present study is to describe the experience and expression of anger among women who have been diagnosed with breast cancer and those who have been diagnosed with cardiovascular disease.

Participants

Participants were self-selected volunteers who were members of two local organizations, one which provides educational and peer support for individuals with cancer and one for individuals with cardiovascular disease. Participants with breast cancer were recruited through personal contact at monthly meetings and through letters sent to leaders of psychosocial support groups at the Wellness Community, Knoxville. Participants with cardiovascular disease were recruited through personal contact at monthly meetings of Chapter 24 of Mended Heart, Inc.

Data Collection

Selection of Participants

Participation in this research project was sought from women 40 years old or older who had been diagnosed with breast cancer or cardiovascular disease for at least 6 months previous to their participation. The participants included 10 women who had been diagnosed with breast cancer and 10 women who had been diagnosed with cardiovascular disease. Subjects were matched as closely as possible for age, length of time since diagnosis, marital status, and race.

Because of the sensitive nature of the topic and of the fact that participants have life-threatening illnesses, arranging for a subject pool required several steps. First, the researcher met with the directors of the two organizations to explain the purposes of the project. Letters were then submitted to regional and national directors of the organizations for approval. Initial contact with possible participants was made through the leaders and staff of the two organizations, and sufficient interest was shown to indicate that enough participants would be available for the study.

The next step involved the actual recruitment of participants. The researcher was invited to address members of both organizations at monthly meetings to discuss the purposes and procedures of the study and to invite participation in the research project. Members of psychosocial support groups for cancer patients were also invited to participate. To protect the confidentiality of group members, information concerning the study was provided through letters which were sent to

group leaders and were read than aloud at group meetings. A sample of a letter sent to group leaders is included in the Appendix A-1. Interested members from both organizations were asked to provide their name, age, time since diagnosis, and phone number on sign-up sheets. The researcher contacted potential participants by telephone to discuss the project and to arrange for the interviews. Each participant was asked to think of several incidents of anger in preparation for the interview. Demographic information was collected informally prior to the interviews and in subsequent telephone conversations.

Phenomenological Interviews

Before conducting interviews with participants in the study, the researcher was interviewed about her own experience of anger in order to become aware of her preconceptions and presuppositions about the topic. This process, called "bracketing" (Thompson, Locander, & Pollio, 1989; Valle, King, & Halling, 1989; Pollio, Henley, & Thompson, 1991), allows the interviewer to become aware of her biases in an attempt not to allow them to exert an unknown influence on the participant's description of her experience. Bracketing one's own assumptions about the phenomenon being considered prepares the researcher to conduct the interview at the level of the respondent's lived experience and to grasp, rather than to impose, meanings as they emerge from the dialogue. The bracketing process occurs continuously throughout the study and is facilitated by conducting interpretation in a group setting. A more detailed description of the interpretive group process is presented in the discussion of data analysis.

In a small pilot study, two university graduate students and one undergraduate were asked to describe angry incidents in as much detail as possible. This study was aimed primarily at refining the researcher's skills in using the phenomenological method of data collection, and the data from the interviews were not included in any subsequent analysis. Once the researcher felt competent to conduct phenomenological interviews, interviews of cardiovascular patients and cancer patients were scheduled.

Each participant was asked to read and sign an Informed Consent Form which described the purposes and procedures of the study, guarantees of confidentiality, risks, and benefits. A copy of the form is presented in Appendix A-2.

An unstructured and open-ended interview was the primary means of data collection, and the goal of the interview was to collect a detailed description of the participant's experience of feeling angry. All interviews were conducted by the researcher, and each participant was asked the following question: "Please think of some times when you have been angry and tell me about one or two of those times in as much detail as possible." The flow of the interview was guided by each participant's response to the question and by the researcher's attempts to obtain a detailed description of each incident of anger. The interviewer focused the participant's attention on specific experience by employing short descriptive questions, such as "What was that like for you?" "Can you say more about that?" and by using the participant's own words when asking follow-up questions or when making clarifying statements. When the participant and researcher felt satisfied that

the first situation had been fully described, the participant was asked to think of another time when she felt angry and to describe it. Although participants were asked to describe one or two incidents, most interviews included several incidents. The number of experiences described in the interviews ranged from three to twenty-nine incidents.

To insure that participants were comfortable, interviews were conducted at a place of their choice. Three cancer patients were interviewed in their homes, and seven were interviewed at the Wellness Community. Two cardiovascular patients were interviewed in their homes, and five were interviewed in a room used by Mended Hearts volunteers at the University of Tennessee Hospital. One cardiovascular patient asked to be interviewed at the Cardiac Rehabilitation Department at Baptist Hospital, and two asked to be interviewed in offices where they worked.

Interviews were recorded on audiotape in full view of the participant and the researcher. Interviews ranged in length from thirty minutes to one and a half hours, depending upon the number of incidents related by the participant and her tempo. Most interviews required approximately an hour to explore each participant's experience of anger. When the researcher felt that she understood the participant's experience of anger, a summary statement using the participant's own words was usually made. This statement represented an attempt to capture the essence of the participant's experience of anger and to provide an opportunity for the participant to reflect on her experience, to feel understood by the researcher, and to add any

additional aspects of her experience which had not been captured. When both the participant and the researcher felt that the dialogue was complete, the participant was thanked for her participation in the study, and the interview was ended. Participants were advised that they would receive a summary and a verbatim copy of the interview and that they were entitled to a feedback session to discuss the research findings and implications for positive health status.

Each participant was assigned a code number which was recorded in a secure computer. Audiotapes and the transcripts produced from the tapes were marked with code numbers to protect the confidentiality of the participants.

Data Analysis

The purpose of the data analysis is to derive a description of the essential features of the phenomenon under investigation. Polkinghorne (1989) has stated that the following three steps are essential for a phenomenological investigation of human experience. The investigator must:

1. Gather "naive descriptions" from people who have had the experience under investigation.
2. Analyze the descriptions in order to grasp the common elements of the experience.
3. Produce an clear, accurate, and articulate description of the essential features of the experience. Through the process of discovering the essential features and their relationship to each other, an overall

structure of the phenomenon emerges which unifies all of the elements. (Polkinghorne, 1989).

The process of moving from a collection of protocols to an accurate structural description of the phenomenon across protocols is difficult and painstaking. Giorgi (1970) has asserted that the method used to analyze the data must be determined by the phenomenon to be investigated and that it is "phenomenologically unsound" to establish a method independent of the phenomenon. Procedures for analyzing data set forth by van Kaam (1969), Giorgi (1975), Colaizzi (1978), and Polkinghorne (1989) were especially useful in developing a method of data analysis for this study.

The analysis of data obtained from interviews with participants included the following steps:

1. Taped interviews were transformed into written protocols.
2. The researcher became familiar with the protocols by listening to audiotapes of the interviews and reading protocols repeatedly.
3. Selected protocols were subjected to group analysis and interpretation.
4. Significant statements were extracted and categorized.
5. Thematic summaries of each episode were created.
6. Summaries of each transcript were written and sent to participants.
7. Significant statements were subjected to continued analysis until essential meanings, or "theme clusters," emerged for each group.
8. Themes were validated by referring to the original protocols.

Step 1: Transcribing Interviews

The first step in an analysis of tape recordings is to transcribe them so that the data analysis can be conducted using the transcripts, conventionally termed "protocols." Taped interviews were transcribed by a skilled legal secretary into a computerized word processing program, and a copy of the draft was given to the researcher. The researcher then listened to the original audiotape of the interview while reviewing the transcribed copy and editing the text on the word processor. Names, places, and organizations were deleted from the text and were replaced with a descriptor in parentheses, e.g.,(Name), (place). Descriptors in parentheses were also added to the text to indicate laughter, crying, or a lengthy pause, e.g., (laughter), (crying), (Pause). A series of periods was used when the participant repeated the same word more than once or began a second thought before finishing the first thought, e.g., "And I...I guess the...the jealousy or...I...I'm not sure of ...well, I'll get to that later." The length of the protocols ranged from seven to twenty-six single spaced pages with an average of eighteen pages. A copy of transcribed interview of one cardiovascular patient and one cancer patient are presented in Appendix B-1 and B-3, respectively.

Step 2: Becoming Familiar with the Protocols

Following procedural steps set forth by Colaizzi (1978), protocols were read repeatedly until the researcher felt that she had begun to "acquire a feeling" for the participant's description of her experiences of anger. Each reading of the protocols yielded a clearer understanding of the participant's experience of anger as the use of

language and metaphors were noted and marked on the protocols. Realizing that familiarity with the protocols was essential to discovering the thematic structure of the participants' experience of anger, the researcher spent as much time as necessary before moving to the next step.

Step 3: Group Analysis and Interpretation

Subjecting protocols to analysis by an interpretive group is an important step in fully apprehending the participant's experiences as they are described in an interview dialogue. Thompson, Locander, and Pollio (1989) have emphasized the importance of the interpretive group in insuring a valid interpretation of phenomenological data. Members of two Phenomenology Labs in the Department of Psychology at the University of Tennessee made significant contributions to the interpretation and organization of data for this research project.

The interpretive group was involved in the bracketing process through group analysis of the researcher's bracketing interview as well as in subsequent analyses of the participants' protocols. Bracketing is a continual process which occurs during data analysis in which the researcher's assumptions concerning the phenomenon being investigated are revealed and held in abeyance. During a group analysis, a protocol is read aloud and interpretations of the data are proposed by members of the group. As interpretations are made, the assumptions of each group member are challenged and interpretations are evaluated by referring back to the protocol. Interpretations must be made at the level of the participant's lived experience, and the group member offering the interpretation must be able to support it. Each

interpretation must be considered in light of both the previous passages and those which follow. Interpretation has been described as "a continuous back and forth process of relating parts to the whole" (Thompson, Locander, & Pollio, 1989, p. 141) in which earlier segments of the protocol are continually reconsidered as the interview dialogue is read and themes emerge.

In addition to facilitating the bracketing process, the interpretive group offers a broader perspective than any one individual can bring to the interpretation of the data. The multiple perspectives represented among group members enriches the interpretive process by providing an opportunity for the investigator to consider the data from different perspectives and ensures that protocols are not viewed in a stereotypical manner.

The interpretive group provides an opportunity for dynamic interchange among members who share a common interest in phenomenological research and who have made a commitment of time and effort to understanding the lived experience of those who have agreed to describe their experience. As group members read and discuss the protocol, the interview "comes to life" as the contents and patterns of the lived experience emerge.

The interpretive group also provides feedback for the investigator in the final phase of phenomenological reduction. At times, the researcher feels unable to progress in the analysis of the data. Feedback provided by the interpretive group was invaluable in helping this researcher persist in her data analysis and to apprehend more clearly the essence of the structural description of anger.

The researcher recorded the group analyses of protocols included in this study on audiotape and made copious notes of all themes mentioned by group members. Copies of the protocols were collected at the end of each group analysis and themes noted in the margins were listed and added to other lists of tentative categories.

Step 4: Categorization of Significant Statements

During this phase of data analysis, the researcher returned to each protocol and extracted phrases and sentences which directly pertained to the phenomenon under investigation (Colaizzi, 1989). Lists were made of all significant statements for each participant. Once all significant statements had been extracted, the researcher read the statements and noted possible categories in the margins. The significant statements in their original form were then categorized and listed in a number of broad categories.

Step 5: Creation of Thematic Summaries of Each Episode

This phase of the analysis involved grouping all significant statements pertaining to each anger episode and of then summarizing each episode for each participant. Each summary included the context, the participant's thoughts and feelings about the incident, and her response to the incident. The following examples, the first from a breast cancer patient and the second from a cardiovascular patient, illustrate this step:

> *She became angry when she was 15 years old because her father did not give her money to buy an important personal product. She felt humiliated and "stuck in a situation" and decided that she would never ask him or anyone else for*

personal products again. She "took it into herself" and did not express her anger to anyone. She considers it to have been a "very significant anger" because it had a profound impact on her choice of profession and lifestyle.

She became angry when the woman in charge of volunteer services at the hospital changed her duties abruptly. She did not say anything about it at the time and struggled to complete her work without losing control. She felt betrayed, and the more she thought about the situation, the angrier she became. She "exploded" when someone called to talk with her about it. Although she felt some relief at having expressed her anger, she also felt ashamed. She resigned from her position and established a volunteer program at another hospital.

The number of episodes ranged from two to eleven incidents with an average of six episodes among participants with breast cancer and from six to fourteen incidents with an average of nine among cardiovascular patients. One participant, who was diagnosed with both diseases and was excluded from the group analysis, described 29 incidents of anger.

Step 6: Creation of Summaries for Each Transcript

During this phase of the analysis, significant statements and thematic summaries of each episode were studied, and overall summaries of each participant's experiences of anger were constructed using an adaptation of the method of report writing used by Hunt (1992). Participants were contacted by telephone and advised that they would receive a copy of the interview transcript, two copies of a summary of the interview, and a cover letter explaining the procedure for reviewing the summary and making appropriate changes. Participants were invited to make any changes that they felt were necessary to accurately

describe their experience of anger on the second copy of the summary and to return it to the researcher in the enclosed stamped self-addressed envelope. Demographic and health information were also confirmed at that time. A copy of the cover letter is included in Appendix A-3.

Summaries included demographic and health information regarding the participant's marital and career status, diagnosis and subsequent treatment, participation in agencies or psychosocial support groups, family history of disease, other major illnesses or chronic health problems, and primary source of emotional support. Themes in the participant's description of anger were listed using her own words. The summaries, which ranged in length from two to three and a half double spaced pages, included examples of specific episodes and a discussion of themes which were interwoven among different episodes. Examples of interview summaries are included in Appendix B-2 and B-4.

Step 7: Producing Theme Clusters for Each Group

The creation of a tentative list of thematic categories involved the compilation of several lists which had already been devised. Audiotapes and notes taken during group analysis were reviewed, and possible thematic categories were noted. At that point, prominent themes from the participants' summaries were listed and reviewed. This step in the analysis yielded nine major thematic categories with numerous minor subcategories. Protocols were read and scored using the composite list, and significant statements were segmented into the smallest possible units for analysis by a change of subject or shift in meaning (Eldred et al, 1954; Giorgi, 1975; Labov &

Fanshel, 1977). The protocols were read and checked several times to insure accurate and consistent scoring. A master list for each group was compiled which included of all significant statements about the participants' experience of anger.

The process of producing theme clusters that are common to all subjects' protocols requires that themes obtained earlier in the analysis be consolidated into more conceptually inclusive and concise form. Polkinghorne (1989) has referred to this process as a "zigzag procedure" which requires the researcher to move back and forth between categories to insure that the final theme clusters accurately reflect and are inclusive of all categories.

Step 8: Validation of Themes

Themes were validated by returning to the protocols and checking to make sure that each significant statement was included in one of the major themes and that no major themes propose anything that was not suggested by the original protocols. The result of the data analysis was an "exhaustive description" of the phenomenon in which the fundamental elements were all included. Such a description for each group is presented in Appendix B-5.

CHAPTER 4

RESULTS

General Characteristics of Participants

A total of 20 women participated in the study. Ten women ranging in age from 44 to 75 had been diagnosed with breast cancer. Nine women ranging in age from 51 to 67 had been diagnosed with cardiovascular disease. One participant, age 74, had been diagnosed with both diseases. The time that had elapsed since diagnosis ranged from 2 to 23 years among women with breast cancer, and from 7 months to 31 years among women with cardiovascular disease. Most participants were white (100%) careerwomen (90%), who either were employed (50%) or retired (40%). A summary of participants' marital and career status is presented in Table 1.

Overview

Interviews were conducted with each of the twenty participants in this study. Among women with cardiovascular disease, the number of incidents of anger discussed ranged from six to fourteen with an average of nine. The number of incidents among women with breast cancer ranged from two to eleven with an average of six.

The experience of Being Angry is described differently by women with cardiovascular disease and women with breast cancer. For women in both groups,

however, Being Angry occurs as an event which is grounded in the woman's expectations of herself, the other, and the world, and it emerges in the context of her relationships. For women with both diseases, anger was described as a negative feeling which is co-constituted of feelings of helplessness and lack of control of the self, others, or the world; of attempts to understand, which result in either clarity and direction or diffusion and confusion; and of doing, not doing, or undoing.

Most women with cardiovascular disease report wanting to be in control of themselves, others, and the world. Their anger is described as being triggered by others' irresponsible behavior or personal characteristics, criticism, and/or mistreatment of someone they care about. Anger is experienced as an immediate negative feeling of nervousness and shakiness which is described as feeling "out of control," explosive, violent, consuming, and overwhelming, and which requires a struggle to control. It usually includes a sense of helplessness, negative thoughts about the other, a desire for revenge, and a need to take action. It is recognized as something destructive which must be "gotten out of my system" and is usually expressed verbally in a clear and determined manner, but it may build up, resulting in a "a good cry" or an explosion. Its expression usually brings relief, but it may be reexperienced when the woman thinks or talks about it.

Most women with breast cancer report that they become angry when something occurs which they feel "shouldn't have happened"--when something "unfair" occurs, when others deny them something really important, or when they feel misunderstood or unsupported. Anger is a "terrible" feeling of tightness, heaviness, and being

"tied in knots" which usually includes hurt, disappointment, and sadness. It may occur quickly, but more often it "stews," building and welling up as it comes closer to the surface. It creates confusion, a sense of helplessness and resignation, and it is usually held in, hidden, and forgotten. When expressed, it is spoken calmly and quietly, but it may "leak out" in tears or "break loose" in screams. Its expression does not bring relief and is followed by having to do something to "make it right."

Major Themes in the Experience of Being Angry

The phenomenological analysis of the experience of Being Angry yielded three major themes and corresponding subthemes:

1) *Theme 1: Having a Negative Feeling*

   Subtheme 1: The Bodily Experience of Anger

   Subtheme 2: Feeling Hurt and Resentful

2) *Theme 2: Feeling in Control/Feeling Helpless*

   Subtheme 1: Helplessness

   Subtheme 2: The Desire to Control

   Subtheme 3: Trying To Take Control: Directing the Anger and Managing the Response

3) *Theme 3: Taking Action: Doing/Not Doing/Undoing*

   Subtheme 1: Doing

   Subtheme 2: Not Doing

   Subtheme 3: Undoing

These themes revealed different aspects of the experience of Being Angry in all women who participated in the study. Not all themes were present in each episode of anger but were present in most participants' experiences. Although they shared a common structure, the experience of Being Angry was described differently by women with cardiovascular disease and women with breast cancer. For this reason, the experience of anger was analyzed separately for each group. Examples using pseudonyms will be presented from each group to illustrate the themes, and the results of the qualitative analysis will be presented separately for each group.

Women with Cardiovascular Disease

All women with cardiovascular disease reported that their anger was triggered at times by others' personal characteristics and irresponsible behavior. Eight of the nine women became angry when they were criticized and/or when someone they cared about was mistreated. Six of the women reported becoming angry when others made insensitive comments, and four when they felt that they had been betrayed. Four women also reported becoming angry when they felt unsupported by others.

Theme 1: Having a Negative Feeling

This theme consists of the subthemes 1) The Bodily Experience of Anger; and 2) Feeling Hurt and Resentful, and was present in the protocols of all women in this group. Anger is a powerful change that comes over her, which she experiences as consuming, red hot, violent, explosive, and/or out of control. She feels nervous as

she shakes, fumes, and struggles to control it. The more she thinks about it, the angrier she becomes. As the anger builds up, she feels that it will destroy her if she does not get rid of it. If she expresses it, she usually experiences relief. If not resolved, it may turn into deep-rooted bitterness, which threatens to "eat her up." The following examples are taken from the protocols:

Subtheme 1: The Bodily Experience of Anger

Example 1: Kate is a 69 year old woman who was diagnosed with a prolapsed mitral valve, suffered congestive heart failure, and underwent open heart surgery to replace the valve. She is describing the anger she felt when her duties as a volunteer visiting heart patients at a hospital were abruptly changed.

> *I have never been as angry in my life, I guess... And the longer I thought about it, the more I was totally out of control, I really was...It was a struggle for me to get through the couple of hours that I had to work and to get my report in. It was all I could do to, you know, maintain any composure at all...I wanted to be out of there as soon as possible, because I was afraid I would lose control there and I didn't want to. I (laughter) felt like I would explode if I just did not get rid of that because I was just...I don't remember ever being as angry as I was then...I felt out of control really. I didn't feel that I had control of my emotions or action. I just was overwhelmed... I think I was just totally consumed by it.*

Example 2: Frances is a 66 year old woman who was diagnosed with atherosclerosis. No surgical intervention was necessary, and her condition has been treated using medication. When she becomes angry, she has a strong physical reaction which recurs when she thinks or talks about it.

> *I feel nervous and uh I feel um...sometimes my hands shake. Sometimes my voice shakes when I get that angry...When I really get angry, my voice does tend to elevate...But can't you*

tell I get angry (laughter)? ...I'm just feeling the same thing that I felt before. See, I'm getting hot, and I'm not shaking, but I'm hot all over. Yeah, just thinking about it makes me angry... I'm perspiring a little bit around my neck and on my legs...I can feel it...just talking about it...I don't feel it when I'm not thinking about it...My face is burning, my teeth chatter a little bit. I'm not seeing as well as I should. I feel a little shaky, a little hot. Why are you doing this to me? Oh, another thing that happened to me is I have like, feels like pins all around my waist.

Example 3: Bea is a 62 year old woman who suffered congestive heart failure and underwent open heart surgery involving four bypasses. She has also been hospitalized with a perforated duodenal ulcer and has suffered two strokes. She is describing her anger toward her husband who criticized a birthday gift she gave him and ruined a surprise party she had planned.

I planned for a whole year for his 65th birthday. So, to throw him off the track, I got him some ties and some socks, wrapped those up. He opened up his ties and said, "That's a hell of a present!" So then I had to tell him I had planned a party with the grandchildren. They were down. Oh, I was fuming inwardly...I had to keep it inside...I'm like a volcano that would like to erupt but can't.

Subtheme 2: Feeling Hurt and Resentful

Example 1: Paula is a 71 year old woman who suffered cardiac arrest and underwent open heart surgery involving four bypasses. Her first husband was killed in an occupational accident, and she was in a difficult marriage for 45 years with her second husband, who was alcoholic.

It's a hurt. It's a...just, you know, I guess it hurts you as bad at that time like sickness would or worse. Well, it's just a change comes over your whole body. You just ... you're just...you just have a change inside that comes out for a few minutes.

Example 2: Ellen is a 67 year old single woman who was hospitalized for almost three months with acute bacterial endocarditis and underwent open heart surgery to replace the valve damaged by the infection. She describes her anger toward her mother, herself, and God which surfaced after her mother's death.

> *I was resenting having to stay home. And I wasn't conscious really that it was building up...I guess because I didn't deal with it, it was a settled bitterness. And I don't really know what the...where the borderline, where it ceases being anger and goes into bitterness...And so here I was 42 years old and no...no prospects. Yeah, and the deep rooted anger or deep rooted bitterness, whatever you want to call it, but it was just eating me up...My whole thinking was consumed.*

These examples illustrate the strong physical sensations and feelings of hurt and resentment which are often a part of the experience of anger in a woman with cardiovascular disease. Six of the nine women spoke of feeling nervous and shaky. Six described a feeling of heat, and five reported feeling "explosive," "consumed," or "eaten up." Five of the women experienced anger as "building," and six spoke of feeling relief after expressing their anger.

Theme 2: Feeling in Control/Feeling Helpless

This theme is at the core of the experience of Being Angry in women with cardiovascular disease and was present in the protocols of all women in this group. This theme is composed of three subthemes: 1) Helplessness; 2) The Desire to Control; 3) Trying to Take Control: Directing the Anger and Making Decisions.

Subtheme 1: Helplessness

This subtheme was present in the protocols of all women with cardiovascular disease. Helplessness is experienced as especially aversive by these women, and it motivates them to act. If they feel that change is a realistic expectation, they do something to change the situation. If they feel that nothing can be done, they remove themselves from the situation or ignore the person who is upsetting them.

Helplessness as a Motivator

Example 1: Kate, who was introduced earlier, becomes angry when she thinks about injustice, i.e., the situation in Somalia and bigotry.

> *Well, I think it's a feeling of helplessness because I know that I have nothing...there's nothing I can do. There are people who are in charge, and for various reasons or another, they have some interest in it. And I just...you know, and when you don't feel that you have power, it is upsetting...If something upsets me that much and I know I can't do anything about it, I should just cut it and run, I mean, walk away from it. There are just situations where you can't do anything and you might as well just accept that fact and hope for the best...Because if you can't change it, you know, you accept it and you go on. Now some things are worth getting up for about and fighting for that you truly believe in, but some things are not. And you just have to try to have sense enough to know which is which.*

Example 2: Nancy is a 63 year old woman who was diagnosed with angina pectoris and was later found to have atherosclerosis. Attempts to remove the blockage using angioplasty resulted in a ruptured artery, and she underwent emergency triple bypass surgery.

> *If I'm with a group of people and they're all doing things that I do not want to be a part of, then I'm not a part of it. I don't do it simply because the crowd does it. If I'm in a group of people and they get to gossiping and I feel like that I cannot do*

anything to stem the tide or cannot change the subject or anything, then I simply get up and leave or walk away.

Example 3: Ellen is describing her strategy for not getting upset with a co-worker who was particularly aggravating.

But I'll tell you, since I had my surgery, I don't allow myself to get upset very much...I refused to let myself get angry because I knew it wouldn't be good for me. I just ignored it...I would tell myself when I got aggravated with her that it's not worth getting upset about. She's not going to change until she sees the need.

These examples illustrate the role of helplessness in motivating women with cardiovascular disease to evaluate situations and to make decisions about what to do. They do not like to waste their time and energy on situations which cannot be changed and they try not to allow themselves to be upset unnecessarily. Therefore, they evaluate which situations are worth "getting upset about" or "fighting for," make changes if they can, and move on.

Unresolved Anger: Continuing Helplessness and Hostility

Situations which have never been resolved satisfactorily may result in continued helplessness, hostility, and sadness. Five of the nine participants with cardiovascular disease are still struggling with anger about situations which have not been resolved. The following examples illustrate the continuing anger and sadness experienced by two women who have not resolved their anger and continue to feel helplessness.

Example 1: Anne is a 66 year old woman who was diagnosed with atherosclerosis and underwent open heart surgery involving five coronary bypasses. Anne became angry when she found out that her daughter was being abused by her

husband fifteen years ago. In spite of the passage of time, her continuing feeling of helplessness about the pain inflicted by her son-in-law prevents her from resolution and contributes to continuing hostility, which is evident in her hostile comments and tears.

> *He's still the same SOB that he always was...It hurts. It hurts. And it hurt because, I guess there's nothing I can do about it. I can't fix it. I just dislike him so much and it...it makes me angry every time I think about it...It just makes me very unhappy, very sad...It makes me cry... You would think after all these years I could feel better about it, but I don't...There isn't a thing that can be done about it. It's past and I should be able to let go of it, but I find it hard.*

Example 2: Frances, who was introduced earlier, is describing her anger toward her brother. Her anger is fueled by a sense of helplessness at being unable to understand or communicate with him. Her comments about him and her tears indicate continuing hostility and sadness.

> *I have a brother who is a well-educated fellow who is a street person actually. And I get mad about him. I get furious and I wonder what in the world. You know, here he has a...he has a college degree in history, and yet he chooses to live in shelters and that makes me angry. And uh I think, "Why? Why? What in the world is he thinking about, or what is going on in his mind?" There's got to be something going on in his mind and I don't understand ... Well, tears came to my eyes.(crying)...I guess when you get past the anger, then you do feel sad. We just basically ignore him now because, you know, we've all done what we could and nothing has helped him...I don't go into much detail with him. If I thought it would help I probably would.*

A sense of helplessness and continuing frustration are apparent in Anne's comments about her former son-in-law and in Frances's comments about her brother. Anne is not able to "fix it" by alleviating her daughter's suffering, and

Frances is not able to understand and help her brother. Neither woman recognizes these as situations which they cannot change, and their feelings of helplessness continue to be reexperienced as anger, sadness, hurt, and the inability to "let go of it" and move on.

Subtheme 2: The Desire To Control

This subtheme concerns the need to control their own behavior and that of others and was present in all of the protocols of women with cardiovascular disease.

The Desire to Control Herself

It is important to most of the women with cardiovascular disease to control their anger and its expression. They do this by "holding it back," hiding it, and becoming quiet.

Example 1: Kate's recognizes her need to feel that she is in control.

> *I'm a control freak as far as I am concerned, not other people, but I just like to feel that I am in control of the situation. And of course, you're not always...it's not always possible, but as much as possible I want to be in control of my reactions and my feelings and...like I hate to have a general anesthetic because I feel here I'm going to be out of it. I don't know what's going to happen to me. What will they do to me?*

Example 2: Nancy tries to control herself so that she does not say things she will regret later.

> *I try to be as much in control as I can until I see, until I look at things, because sometimes when I'm angry, if I get a little upset or anything, sometimes part of it is my fault. And if I bounce off and say it isn't and then I have to eat those words, I don't like that. So I would rather go away and think about it and then see how to approach it afterwards.*

Example 3: Bea has been in the hospital repeatedly for several serious conditions, including two strokes, bleeding ulcers, and open heart surgery. Although she is often angry with her husband, she tries to control her anger to protect him.

> *I have to be the strong one in the family. If I just say I'm not going to be around too long, my husband starts worrying...I cannot let it out and say, "You son of a you know what!"...When I say, "I'm going to take early retirement. I don't know how many years I've got left..." He'll say, "Honey, you say you're going to live to be a hundred. I'm getting worried." That gets me...I have to watch what I say. I have to be upbeat on everything. I told him, I said, "Now dear, when I go to surgery, they're going to tell you I'm at risk." I said, "Don't let it bother you. I'm a determined old broad!"*

These examples illustrate the desire of these women to be in control of their emotions, especially anger. Controlling their emotions was important to all of the women in this group, and seven of the nine participants indicated that controlling their anger required a struggle. All of the women became quiet at times when they were angry to avoid saying something they might regret later.

The Desire to Control Others

The women with cardiovascular disease feel that it is also important to control others, and their inability to do so is a major trigger for anger. All of the women in this group become angry at others because of behavior which they consider irresponsible or irritating.

Example 1: Kate is describing her anger toward a friend whose personal characteristics are irritating.

> *Recently I was upset with a friend of mine. I don't know if she's a friend or not. She's always finding some way to give me a hard time, but I really don't pay much attention to her. She's been a widow for 5 or 6 years and she hasn't remarried and I can see why and I told Robert if I died before he did and he married her, I'd rise up and smite him (laughter). She can be so hateful...She's the type of person that you don't try to reason with anyway. She knows it all so just let her know it all (laughter).*

Example 2: Bea finds that her husband's personal characteristics a source of constant irritation.

> *He has no outside interests. This is why I am worried about his retiring. I don't know what he's going to do with himself. He says he will do volunteer work, but I just don't believe it. He'll keep putting it off, putting it off, putting it off... He's exasperating...That man is the most habit forming...habit... he gives in to his habits. He is just like dead.*

Example 3: Nancy knows what she will tolerate and what she will not. She chooses her friends carefully based on her evaluation of whether or not they are sincere and trustworthy.

> *I don't like people that are two-faced. I don't like people that feed on other people's misery, and I hate gossips...I tend to avoid being in a position where I have to have some...have to be with people who I'm...who I mistrust...I'm suspicious of people once I've found out that they...I've just seen gossip do too much to people and it really bothers me. That's one of my pet peeves is people telling things and not knowing half of it.*

These examples illustrate the irritation these women experience in response to others' behavior, which they are unable to control. These women all have a clear sense of what they consider acceptable behavior, and anger is triggered when others do not live up to their expectations.

Subtheme 3: Trying To Take Control: Directing the Anger and Managing the Response

This subtheme includes attempts to take control, to direct the anger, and to make decisions about what to do. All of the women with cardiovascular disease were able to acknowledge their anger and to direct it toward themselves or others.

1) Directing the Anger:

Most women with cardiovascular disease blame themselves at times, but more often, they direct their anger toward others. Directing their anger includes not only knowing who has angered them and why, but also passing judgment on the person and having thoughts of revenge, often of a violent nature. The following examples illustrate some of their thoughts of revenge and their strong impulse to act when they are angry.

Example 1: Kate is describing the thoughts she had when she saw the woman who had changed her duties as a volunteer abruptly at a hospital several years earlier. By this time, she had resigned her position at the first hospital and had established a volunteer program at another hospital. This incident occurred recently as she was visiting patients at the second hospital. Her negative thoughts helped her to maintain her composure.

> *Later, not too long ago, the woman who was in charge of volunteers at that time was on the same elevator I was and she said, "Oh, I guess you're going to see your little heart patients today, aren't you?" And I said, "Yes, I'm going to see my little heart patients (laughter)" just smiled and got off of there and I thought, (laughter) "You're not going to get me this time, lady." Well, I thought she made an ass of herself, frankly...I forgot it as soon as I got off the elevator because I thought, "Well, I'm in control here, lady. (laughter) You're not getting to me." I was*

proud of myself that I didn't say anything to her. I just went on about my business. I thought, "Well, you certainly have diminished yourself. You haven't done anything to hurt me."

Example 2: Although Bea does express her anger often, she does not express it to its fullest extent. She often has violent impulses to act or to harm her husband, but she does not act on these impulses. The following excerpts were taken from her descriptions of angry feelings and the desire to act violently given throughout her protocols. When she thinks of having to live in a mobile home instead of a house, she wants...

...to slam doors and kick and scream and kick the cat...or hit him.

When he interrupts her while she is on the phone, she wants...:

...to throw the phone at him.

When he spoiled the birthday surprise, she had...:

...ooohhh...the urge to kill...

When he does a poor job of cleaning, she thinks...:

...that S.O.B.

When he talks about taking their money and traveling, she feel like...

...wanting to hit something.

Example 3: Ellen also has a strong urge to act, sometimes violently, when she is angry. These excerpts were taken from her descriptions of anger and urges to act impulsively from throughout her protocol. When a co-worker made an insensitive comment to her in front of her boss, she felt...:

I could have chopped her head off. At that instant, I could freely have just absolutely scratched her eyes out.

When minister made an insensitive comment about her in front of the congregation, she felt...:

I wanted to go up there and jerk him out on his tail.

When her sister-in-law criticized her shoes, she felt...:

For just a second, I was just...I really wanted to slap her.

All women with cardiovascular disease directed their anger toward others by blaming, making harsh negative evaluations, and having desires for revenge. Of the nine women in this group, eight described negative evaluations of the person who had offended them, and seven described desires for revenge and impulses to act violently. These negative thoughts motivated them to make decisions about how they will "get it out of my systems" by expressing it, taking action, or defusing it in some other way.

2) Managing the Response:

Women with cardiovascular disease manage their anger by making decisions about expressing the anger, taking action, or defusing their anger in another way. Decisions by women in this group included recognizing the need to change, relying on spiritual beliefs, preparing for a confrontation, concentrating on the good aspects of the person or situation, and using humor to cope with anger. The following excerpts are taken from the protocols.

Example 1: Kate recognized the need to change following her heart surgery and has decided not to let unimportant things bother her.

After you have heart surgery, you have a complete change of perspective and you view things much differently than you did before. You realize your mortality. You realize that it's pretty silly to get upset over much that isn't very important... Like my neighbor says...he's had heart surgery, too. He said, "Don't sweat the small stuff." And I think that's a perfect, you know, way to put it.

Example 2: Ellen learned to deal with her anger and her strong urge to act impulsively in several ways. She is describing her anger toward her boss when he failed to pay her for time she took off from work while her mother was ill.

He didn't pay me and I had then worked for him for 20 years and he didn't pay me for the time I was off. Well now, that was really the most...that was really angry...I...I was really angry about that...And I would hold imaginary conversations with him, you know, really ream him out.

Example 3: Paula was briefly angry when she discovered that she would have to pay more income tax, but decided to concentrate on the positive aspect of the situation.

I got angry last night at a man (laughter) about income tax. Oh, honey, I just got real upset...And I said, "Oh, that makes me so mad just to think I paid so much and have to pay more." Oh, it just made me real angry there for a minute. Then I said, "Oh, no. I'm glad I've got it. I'm glad I can pay it. I don't have to go out and borrow it like some people do." So in just two or three seconds I was...I got my thoughts back (laughter). You know, when you get into money, you kind of get angry.

These examples illustrate the ability of many of the women with cardiovascular disease to evaluate the situations which have angered them and to make decisions about whether to express their anger, to take action, or to defuse it in another way. As they acknowledged and attempted to understand their anger, eight of the nine women made decisions about managing and expressing their anger, and one women

turned to her husband to calm her. Seven of the women recognized the need to "get it out of my system," and five emphasized the importance of evaluating which situations could be changed and which ones could not. Five of the women recognized the need to change themselves, especially after surgery, and made a concerted effort not to let unimportant situations upset them. Three of the women prepared themselves for confrontation. Six of the women reported defusing their anger by concentrating on the positive aspects of the situation, while five used humor and three used spirituality to cope with their anger.

Theme 3: Taking Action: Doing/Not Doing/Undoing

This theme includes the ways in which women with cardiovascular disease report expressing their anger and is composed of three subthemes: 1) Doing; 2) Not Doing; and 3) Undoing.

Subtheme 1: Doing

This subtheme includes the expression of anger through confrontation, hostile comments, crying, and/or taking action. When they are angry, women with cardiovascular disease feel they need to "do something." Based on their understanding of the situations, all participants were able to express their anger verbally and to take action. They reported expressing anger through their words, their actions, and occasionally through tears.

Verbal Expression

All women with cardiovascular disease expressed their anger verbally, sometimes in a loud or explosive manner. They not only spoke of situations in

which they had expressed anger in the past through confrontation, they also expressed unresolved anger during the interviews by making hostile comments about others. The following excerpts illustrate the various forms of verbal expression used by the women in this group.

Confrontation: Talking

Example 1: Ellen sometimes handle her anger toward a co-worker by expressing her anger verbally.

> *It just kept building up and I started getting very frustrated with her. And finally one day she said, "Well, you don't have to worry about me taking your job. I don't want it." And I said, "Well, I don't have to worry about you taking my job because you couldn't do it." And I can remember that I felt so good to get that...say that to her and get that out of my system.*

Example 2: In the following excerpt, Lana describes her reaction to being called an obscene name by her second husband.

> *He said, "You're shit."...And I looked at him and it flew all over me and I was hot...I felt flushed and very hot and I was angry because what went through my mind is, "I have tried to talk with you. I have tried to make this work. I know what good can be for a relationship. And you turn around and say that and destroy anything that anybody could build, and then you think that it's going to be all right." And that's exactly what I said to him.*

Example 3: When a reporter from the local newspaper called her daughter at the hospital to ask her about the large tumor that had been removed, Nancy expressed her anger in a determined manner.

> *I walked into her room one day and she was on the phone and tears were running down her face and she said, "Mother, I don't know what he's talking about." And I picked the phone up and said, "Hello, this is Nancy, can I help you?" And he said, "I'm*

> *a reporter...I was calling your daughter about her tumor that she had removed." I said, "Don't ever dial this phone in this room again. If you do, I'll have your job."*

Confrontation: Exploding

Although women with cardiovascular disease often express their anger by discussing it, sometimes their anger "builds up," resulting in an "explosion." Six of the nine participants in this group described incidents in which they "blew up," "exploded," or "flew off the handle." The following examples illustrate some of the more explosive incidents.

Example 1: Kate's initial reaction to having her duties as a visitor changed abruptly, her struggle to control herself, and her subsequent interaction with the woman who offended her have already been described. The following excerpt is her description of the way she verbally expressed her anger:

> *Well, I'm afraid I was anything but a lady...I exploded ...I seemed to go on and on and I, you know, should have finished it off in a few sentences and let it go, but there was just something inside me that I had to get rid of...I just...it was as if I didn't get...if I didn't get rid of it then it would just destroy me, you know...I wasn't as polite as I should...as they say a lady should be, but I was no longer a lady. I was furious...I talked loud and I repeated myself at great length...I felt better. I was a little ashamed that I had lost my temper so thoroughly.*

Example 2: Bea's impulses to act violently toward her husband, her tendency to fume inwardly and to "burst out," and her anger about her husband's characteristics have been described. She is describing an incident which occurred many years ago when the minister at her church frightened her daughters.

> *I had made arrangements for my neighbor to go pick them up. So the minister asked where I was, because I was a Sunday*

> *School teacher, I sang with the choir. And they said, "She's playing bridge." He said, "Does your mother like to dance?" They said, "Yes." He said, "Does your mother ever take a drink?" "Yes." "Your mother's going straight to hell." They got hysterical. Well, I got a telephone call...So I went, and this is one time I really let it out...I went directly up to the minister. I called him everything I could think of. Called him a son of a bitch, a devilmonger. I said, "A minister doesn't tell a child things like that. I said, "They look up to their mother." I said, "You will not see me in this church ever again."...I would have liked to have been abusive physically toward him. I held that in. And it was a relief to be able to get it out verbally.*

Example 3: Nancy's need to control herself, her intolerance of others who gossip, and her desire to change have been discussed previously. She is describing what happened when she discovered that her supervisor had changed her time sheet without telling her.

> *I laugh about it now, but we got quite loud because everybody in the office turned around and looked...I was mad as hell if you want to know and you can quote me...I got loud. She got loud and she said, "Are you calling me a liar?" I said, "Are you calling me one?"...I mean a doozie in her office (laughter)*

Continuing Hostility: Hostile Comments

The women in this group also reported expressing anger toward those who had offended them in the past by making hostile comments about them and calling them names during the interviews. Some of these comments have been presented in previous examples. The following excerpts illustrate this form of unresolved hostility.

Example 1: Kate is expressing her hostility toward women in a local Woman's Club.

> *And I wouldn't belong to any organization like that anyway, a bunch of little old ladies that don't have anything better to do. You know, they play bridge and they make crafts and they do all that. Well, that's all right with me if it suits them, but it doesn't suit me (laughter)....It's just a bunch of old biddies anyway, you know, that (laughter) don't have anything better to do.*

Example 2: Kate is expressing her hostility toward psychiatrists and doctors in general.

> *I think they're a bunch of nuts themselves...Some of them are nuttier than the patients. They wouldn't have gone into it in the first place...I don't worship doctors by any means. Most of them you can take them as far as I'm concerned.*

Example 3: Bea is making a hostile comment about her husband's characteristics.

> *Well, I'll say to myself, "You S.O.B.! Why can't you take it?" You're a man. You're supposed to be the strong one, not me. You're a man. You're supposed to be the strong one." But he is like putty. He just falls apart.*

These examples illustrate continued hostility toward those who have offended the women with cardiovascular disease. Although the hostility is sometimes expressed subtly, it appears consistently in the protocols of women in this group.

Crying

Seven of the nine participants stated that they sometimes cry when they are angry.

Example 1: Kate became angry with her father because of his critical comments. In the following passage, Kate describes her feelings about her father's cruelty.

I was very angry with him because he never would...he never would say, give me a compliment without putting a barb at the end of it. And it just...and I would be in tears.

Example 2: Martha is a 59 year old woman who has suffered two aneurysms and has undergone open heart surgery twice. When Martha is angry, she has to struggle not to cry. In the following excerpt, she is describing her angry reaction to her husband's criticism.

I can remember getting real, real angry with my husband and I can't remember what he was accusing me of now. Um...not being considerate or something...accusing me of something I really knew was not true...I remember going in the bedroom and sitting down and crying, just...just crying, having a good cry.

Taking Action

When a woman with cardiovascular disease makes a decision to take action, it may take one of several different forms. The following passages illustrate ways in which women in this group have expressed their anger through their actions.

Example 1: Paula has been angry with her alcoholic husband frequently during their 45 year marriage because of his critical remarks and drunken behavior. Although she often verbally expressed her anger to him, fear of his violent behavior made silence safer. She is describing the events leading up to her decision to move out and live separately.

I would feel angry inside and I'd say, "If you can't say something good, don't say anything. I don't want to hear it," I'd say it over and over. Or "We're going to start that again," and I said, and I said, "Yeah, we're going to start that." But you know, we just couldn't do a lot of talking together...After we'd been having words about something that was going on, then we would get silent...We were arguing about something and I said, "Well, I'm moving out." Because uh I just couldn't take

any more I mean I thought, "Hey, this is no way to live...I just got up one morning and I said, "Hey, this is it."

Example 2: Frances is describing the action she took when she learned that her son-in-law had threatened to kill her daughter.

I have another situation, another daughter who is going through a divorce from a guy who is an abuser. And I've gotten angry many times over that...I guess the one time that I can remember in all that...in all that's happened with her is the time that he threatened to kill her, kill all three of them. And my anger was so immediate and so quick to come up in me, you know. It just went all over me and I felt it just instantly. And I just felt like something should be done instantly to counteract it...I was definitely shaking then, I really was. There's no question about it. I just had an instant reaction. When my daughter was telling me she was crying. And I didn't cry. But I knew I had to do something...We told his family, we told his mother, and we told his sister and his brother, and the people in the neighborhood where she lives.

Example 3: Anne's struggle to control her anger in order to protect her mother and daughter made it difficult for Anne to express her anger openly. Recognizing the need to "get it out of my system," she has found other ways to express her anger. The following excepts illustrate ways that Anne has learned to deal with her anger and to "get it out of my system." She is describing what she did when a repairman failed to repair her refrigerator.

I called a repairman and he came down and looked it all over and he told me that it was moisture. And I said, "I know it's moisture. I have to mop it up every day." And I was mad. (laughter)...And I sat down and wrote, not a nasty letter, but a very explicit letter to the company and got it out of my system and they sent someone and it was...it was fixed.

These examples illustrate ways in which women in this group have chosen to express or handle their anger. They are all able to express their anger verbally, and

six of them reported expressing their anger in an explosive manner. Seven of the women spoke of crying with they were angry, and nine spoke of taking positive action. Three of the women decided to divorce or separate from their husbands, and three have written to "get it out of my system." Although they are motivated to act, women in this group also manage their anger by Not Doing.

Subtheme 2: Not Doing

This theme includes ignoring the person or situation, not performing duties they are expected to do, and leaving the situation which has made them angry, and making permanent changes in relationships. The following passages illustrate Not Doing among women in this group:

Example 1: Martha prefers to ignore her husband when he criticizes or yells at her.

> *I deal with...with my anger or my displeasure at something you're doing not by showing anger or yelling...I certainly don't like it when he does and if I can ignore it, I think it's better. If I ignore it and don't...I think if I've got something to say back, then he's got something to say back and we get into a big argument and I'm certainly not going to do that.*

Example 2: Bea tired of her husband's critical comments about her cooking and decided to stop cooking for him.

> *We go to the store together. He gets what he eats. I get what I eat. He would fry everything if I would let him. I won't cook for him, because he complained once too often, because where it called for ground beef, I would put ground turkey. And he said it tastes different. I said, "You'll complain once too often." He did. I quit cooking for him.*

Example 3: Kate's anger at injustice and bigotry have been described in an earlier passage. She is describing the way she protested when members of the local Woman's Club decided to use a black ball system to exclude women of different races from their membership after verbally expressing her anger.

> *I said, "You know, this is the Women's Club. It is not the White Women's Club." So I resigned...When someone stood up and said, "Well, we'll just, you know, have this black ball system and that way we can keep it the way we want it." But I knew that nothing I said or did would make any difference, so I resigned very quietly and that was the end of it. And I didn't waste any more time thinking about it.*

When anger is not openly expressed and resolved, it may lead to continuing hostility. This can have a permanent effect on the relationship.

Example 1: Anne became angry when a friend failed to live up to a commitment to take over her duties as a visitor at the hospital. Although she takes action by explaining the situation to the head of the volunteer department, she did not express her anger openly to her friend. The unresolved anger has had a lasting effect on the friendship.

> *I went down to the head office and explained to the head of the volunteer department, I guess to ease my own mind...And when I did see her again, she told me, she said, "I hope you're not mad at me." And she says, "I'll be glad to work, you know, another time for you." And I said, "Well, we'll see," knowing full well I would not ask her again...I was very distant from her for a while. I've talked to her since, but it's not been the same friendship it had been before.*

Example 2: Nancy became angry when her sister-in-law called to ask about her daughter, because she felt she was being insincere. She has never expressed her anger directly, and their relationship has changed.

> *When my sister-in-law called one time...it was one time when she was in the hospital...She had never been to see her the whole time. But she called and said that she had heard that she was worse...And to me she was pretending to be...to care. And I said, "I'm sorry. I'd just as soon not talk about. I'd appreciate it if you'd call me later." And I hung up on her. I haven't had any use for her since.*

These examples illustrate different forms of Not Doing which occurred in the protocols of the women with cardiovascular disease. Six women chose to ignore the person or situation which angered them, and seven chose to leave when they were angry. When anger went unexpressed, it sometimes resulted in unresolved hostility which had a lasting effect on the relationship.

Subtheme 3: Undoing

Undoing involves activities like apologizing which are designed to neutralize the expression of anger. The following examples illustrate Undoing.

Example 1: Nancy is willing to apologize, but she would rather not be in the position of having to do so.

> *Well, I'll tell you, with the exceptions of a very few times, I don't mind saying I'm sorry. I mean, I...I'm not...and I don't...I don't hold a grudge but I tend to avoid people that are...who I mistrust.*

Example 2: Paula likes to resolve anger quickly if possible.

> *I get along with people real well. I don't carry my feelings. No. I don't hold no grudge and I can tell you real quick...I can apologize so quickly...I don't like for things to go on, no.*

Of the three modes of action, women with cardiovascular disease are most likely to engage in Doing. Although they also engage in Not Doing, it is often

because they have made a decision not to let situations upset them. Although they are willing to engage in Undoing, this is not an important aspect of their behavior.

Prototypes of Women With Cardiovascular Disease

The descriptions of anger by Bea and Kate capture the essence of Being Angry among women with cardiovascular disease. Brief summaries of each woman follow:

Kate is a 69 year old woman who suffered congestive heart failure and underwent open heart surgery to replace a prolapsed mitral valve. She has a clear sense of who she is and of who and what she likes. She described herself as "independent" and a "control freak" who likes to be in control of her emotions and of situations. She is angered by others' irresponsible behavior and personal characteristics and by injustice to herself or someone else. Kate experiences anger as explosive, overwhelming, and consuming, and she must struggle to control it. Although she is usually able to control her anger, she has expressed herself in a loud and explosive manner. A feeling of helplessness is intolerable to Kate, and she evaluates situations in order to decide whether they are worth "getting up and fighting for." If she feels that nothing can be done to change a situation, she chooses to "walk away." Since her heart surgery, she has learned "not to sweat the small stuff" and tries not to become upset about situations she cannot change. Unresolved anger and ongoing hostility were apparent in the numerous hostile comments she made about others during the interview.

Bea is a 62 year old woman who suffered congestive heart failure and underwent open heart surgery to relieve substantial blockage in four arteries. She has also been hospitalized for a perforated duodenal ulcer and two strokes. She is often intensely angry with her husband because of his behavior and his personal characteristics. She has violent impulses to act and, although she expresses her anger verbally, she does not express it to its fullest extent. She considers her husband to be "like putty," so she holds her anger in and "fumes inwardly." She described herself as "a volcano that would like to erupt but can't." She does erupt at times and has expressed herself in a loud and explosive manner. Ongoing dissatisfaction and hostility were apparent in the numerous hostile comments she made about her husband during the interview.

Women with Breast Cancer

Anger was triggered in all of the women with breast cancer in this study when they were denied something important or when they felt unsupported or misunderstood. Four of the women became angry when others were mistreated, and two became angry when their trust was betrayed. Three became angry when they felt that others were taking advantage of them, and two became angry when others acted insensitively. Four were angry about others' irresponsible behavior and personal characteristics. One became angry when she was criticized.

Theme 1: Having A Negative Feeling

This theme includes two subthemes: 1) Subtheme 1: The Bodily Experience of Anger; and 2) Subtheme 2: Feeling Hurt and Resentful. Anger is experienced by women with breast cancer as a "terrible" feeling of tightness, heaviness, and being "tied in knots" which usually includes hurt, disappointment, and sadness. It may occur quickly, but more often it "stews," building and welling up as it comes closer to the surface. Its expression seldom brings relief and is often followed by the need to "make things right." The following examples are taken from the protocols:

Subtheme 1: The Bodily Experience of Anger

Example 1: Iris is a 74 year old woman who was diagnosed with breast cancer at the age of 63. She began by saying that she "had a difficult time coming up with things." She was able to remember only two incidents of anger during her lifetime. She is describing her experience of anger.

> *I feel so terrible inside. I think I would sort of describe it as a sinking, tight feeling in my chest. It's a feeling of complete frustration. Sometimes I'll cry, not always...I think most of my anger has usually been from hurt feelings or fear. I think the two seem related. Primarily hurt feelings.*

Example 2: Sara is a 66 year old woman who was diagnosed with cancer at the age of 43. She opened the interview by saying, "I cannot remember any time that I was angry." However, while talking about not being angry about her cancer diagnosis, she remembered two incidents from the distant past. Sara is describing the bodily sensation of anger after being fired unexpectedly 16 years ago.

> *At that particular time, I mean, I was rushing to get to the beauty shop to get my hair fixed to catch the plane the next*

morning, and I can just remember trying to gather up all my stuff and clean out the desk and...I mean, there wasn't... I'd say there was a two-hour notice. And it was on the trip later that I had the pains in my chest every time I started thinking about it...There was just a pain there, and I'm going to say in the middle of my chest. And, of course, you must remember, that's 16 years ago.

Example 3: Alice is a 53 year old woman who was diagnosed with arthritis at the age of 47 and with breast cancer two years later. She began by stating that thinking of anger was difficult for her "because I don't have too many angry episodes that just kind of loom up as being real angry episodes." Alice is describing her "angry attitude" toward journalists who sensationalize their presentation of information about breast cancer.

I have angry feelings towards the way the news media presents breast cancer to the public...I'm not really talking about an angry incident unless I would say that the incident would be each time that I see that on the front page of the newspaper or pick up a magazine and it's...it's done...I...the one...one of the magazine articles done in a sensationalism attitude. Well, I'm always curious to see, well how's it going to be presented this time. And I guess the physical aspect is that I feel tension. I definitely feel tension...So, yeah, the media does make me feel tense or I just kind of want to say, "Darn it. It shouldn't be this way."...I kind of feel like I have a heavy heart.

Subtheme 2: Feeling Hurt and Resentful

Example 1: Diane is a 74 year old woman who was diagnosed with breast cancer at the age of 62. At that time, she became a member of a support group for breast cancer survivors. As she worked in the group, she became aware of "deep-seated anger" which she had not recognized.

There was an anger inside me that stayed for quite a long while because my mother was sick and my friends' mothers weren't. I

> *was ten. And I...there was an anger there that she was ill but it was a different kind of anger than...than getting mad at someone...I guess there was an anger deep down inside...In the support group, I mean, we...we looked back and we recalled, which made me understand really my resentment of my mother being sick...That was a deep-seated anger.*

Example 2: In the following excerpt, Alice describes her feelings of hurt and disappointment when she thinks about her son's marriage. Her description reflects the ambivalence and confusion she experiences while "stewing."

> *I don't think it's anger that stews, I think it's hurt that stews...I guess stewing is worrying. But I think...no, no. No, I'm going to take that back. I guess it's a form of worry but it's not the kind of worry that I used to worry before my cancer experience and I probably would have just made myself sick over their problems. And I don't do that anymore. I think I...when I say that I stew over it, I'm probably more mourning over what has been lost. Yeah. I would say that that's probably just...just kind of feeling bad that this is the turn that things have come about. But I don't...I don't feel a hopelessness in their situation. Well, I'll change that. I feel that there's a hopelessness in the two of them ever making a marriage out of what I am seeing.*

These examples illustrate the bodily sensations and feelings of hurt and disappointment which are experienced by some of the women with breast cancer when they are angry. Of the ten women in this group, seven had difficulty remembering many incidents of anger over their lifetime and eight stated that something must be important for them to become angry. Eight of the women described a feeling of tension or fear, and seven described either the feeling or the situation as being "terrible" or "horrible." Four of the women described anger as redness or heat, while three others spoke of "stewing." Six women in this group spoke of their emotions as "building," "welling up," or being "close to the surface."

Two women did not describe bodily feelings when they were angry, but mentioned not wanting to "bottle it up" or having difficulty sleeping. Six of the women are still angry about events that occurred in the past, and four of them reexperienced feelings of anger during their description. Eight of the women with breast cancer included hurt or disappointment in their description of anger, and two of them referred to their anger as "deep."

Theme 2: Feeling in Control/Feeling Helpless

This theme of is at the core of the experience of Being Angry in women with breast cancer. This theme is composed of three subthemes: 1) Helplessness; 2) The Desire to Control and 3) Trying to Take Control: Directing the Anger and Managing the Response.

Subtheme 1: Helplessness

This subtheme includes confusion, feeling inarticulate, feeling that anger is useless, and the inability to understand or direct anger. A woman with breast cancer has a vague sense of the way she, others, and the world "should and should not" be. She sees others as being superior and feels that she is responsible for "keeping the peace" and "making things right." She does not become angry often, and when she does, she experiences confusion, helplessness, and resignation which immobilize her. The following examples illustrate the feelings of confusion and helplessness that are a part of Being Angry for women with breast cancer.

Example 1: Iris describes her sense of helplessness and confusion when she becomes angry and her feeling that her husband is more articulate.

I get very upset if I get extremely angry and that may be one reason that I hold it. So, because it never seems to help when you get extremely angry. I end up being even more upset than I was before, I think one of the problems is that I have such a hard time articulating what it is that is bothering me at the time. And my husband is so articulate ...I find it's been difficult for me to express what it is. And I tend to go blank...It's almost as if I just close down when I get angry and I can't...I can't argue. I just...I just become completely inarticulate.

Example 2: Alice explains why anger and arguing are so threatening for her.

I was always uncomfortable with arguing. It's threatening. Arguing is threatening to me...Three girls in the house. I guess I always felt like I was the one that almost always had to come out on the short end...My older sister was domineering and she was very, very self confident and a very, very brilliant girl. She really is a smart girl...So I think I felt dumb lots of the times. And so when I hear arguments I think most of the time feel dumb. I feel as if I don't get the words out that should be gotten out to win this.

Example 3: Kathleen is a 44 year old woman who was diagnosed with breast cancer a year and a half ago. She has recently learned that the cancer has metastasized to her bone. In this excerpt, Kathleen is describing how confusing anger is for her and how helpless she feels in being unable to resolve the differences with her husband.

I don't think clearly when I'm angry, so that I can't talk through things. It's like I...I think I get distracted by my own tears and I think my head gets rattled by the anger to the point where I cannot think clearly...We have these reoccurring same kind of arguments over and over again I get frustrated because it's the same sort of thing that we've dealt with before and I know there's no place to go to resolve it. It's like, okay, here's that issue again and it's not going to go away. How am I going to deal with it this time? So I think it through and then I go, "Well, what's the point? I'll just let it ride. I'll just forget it. I'll get over it."

For all of the women with breast cancer, helplessness and confusion were an important part of Being Angry. Eight of the ten participants spoke of anger about things that "shouldn't have happened" or of their feeling that they should have felt or acted differently. Seven found it difficult to recall incidents of anger, and six experienced diffuse anger which they could not direct. Eight of the women had problems understanding others when they were angry, and seven had difficulty finding the words to express their anger.

The examples illustrate the centrality of helplessness in the experience of anger in a woman with breast cancer. She feels helpless and angry when others do not understand or support her. When she becomes angry, she feels unable to articulate her feelings either to herself or to others. Her confusion and inability to speak on her own behalf make her feel more helpless. The overwhelming sense of helplessness causes her to feel that the expression of her anger is useless, and she becomes resigned to the situation and to feeling "I want to take action but know that I can't."

Subtheme 2: The Desire To Control

Anger is a "terrible" emotion for most women with breast cancer, and its presence in herself or others is threatening. Therefore, it is important for her to control anger in herself and to prevent others from becoming angry. She actively controls her own anger by holding it in, hiding it, and becoming silent, and she avoids her anger by not recognizing it and by forgetting about it. She manages

others' anger by anticipating the needs of others, avoiding confrontation, and "keeping the peace."

The Desire to Control Herself

When the woman with breast cancer becomes angry, she feels that it is important for her to control herself. If she allows herself to feel too intensely, she runs the risk of becoming overwhelmed by feelings of helplessness and of being immobilized. The following examples illustrate both active and passive forms of control.

Example 1: Iris learned about her tendency not to express her emotions while she was in therapy. Although she is aware of these tendencies and she has tried to be more expressive, she finds it hard to change patterns which were established in childhood.

> *I have known for some time, because in the aftermath of my cancer I did have therapy and that that I tend to not express my emotions and I tend to forget because I like peace...I tend to bury things and I forget them...I know I've been angry but I can't remember the particular circumstances...My tendency through the years whenever I would get angry was just to clam up, you know, to get out of the situation or just to quit. And I can remember...oh, I can't remember what the causes were...of being so angry that I just wouldn't want to talk to the person I was angry with for a long time...When I was in therapy I was told that somehow in our family we had seemed to avoid, when I was growing up...We sort of skirted around everything to keep everything all right on the surface...I've learned, you know, since I've had cancer, to express my feelings a little more, but it's hard to overcome a lifetime of wanting peace.*

Example 2: Being in control has always been expecially important to Linda. For about ten years, she was "deeply angry," but tried to ignore the criticism and

offensive behavior of a hostile co-worker and to hide her anger. Although she quit the job about five years ago, she has not yet resolved the anger. Linda is describing the difficult situation she faced daily at work.

> *There was one particular individual who was...he and I just didn't get along. He thought that I was not doing a good job and he would pick on me for little things...It was just constant ...picky, picky, picky pressure. And my reaction was just not to talk to him, to just withdraw and then focus on what I was doing well and try to go on and do it better...It was pretty awful and I didn't do much about it. I just took it. And I was deeply angry at the time a lot of the time. And I still am. I still can feel the anger when I talk about it.*

Women with breast cancer report attempting to control their anger by denying it, holding it in, hiding it, and becoming silent. Seven of the ten women who participated in the study had difficulty remembering angry incidents, and four spoke of an inability to recognize their anger. Nine spoke of their need to hold their anger in; eight spoke of hiding it; and four described their tendency to become silent when they were angry.

The Desire to Control Others

The woman with breast cancer not only finds her own anger disturbing, but she also finds it hard to tolerate anger in others. She avoids conflict by anticipating the needs of others, by "keeping the peace," and by avoiding confrontation. The following examples are take from the protocols:

Example 1: Iris describes her need to please others and to "keep things peaceful in the family." Iris's children are "sensitive to being told what to do or anything," so she tries to keep things calm.

> *I guess essentially I want too much to please people...I hate controversy and I just go out of my way to avoid it and to keep things peaceful in the family...[Anger is] a manifestation of an unpleasant situation...disagreement, discord...I'm pretty much convinced that, at least for me it works better to try to anticipate situations to a certain extent and avoid and understand and just not let things get to the point where there is an explosion...I try very hard never to make suggestions or anything to do things to keep things as calm there as possible.*

Example 2: Diane also felt it was important to "keep a calm house" to compensate for her husband's and her mother-in-law's drinking and to stay calm at her shop.

> *I just felt it was necessary to stay calm around the children and...well, I owned a store and I couldn't be angry in the shop. Thirty years of being in the public, (laughter) you learn to take people's criticism and people's ire and...but not vent it back. You learn to calmly explain things and talk to people. And this is the way that I handle that. Oh, you just try to be as nice as you know how to be really...I was sorry, that...that's why I said I tried to keep a calm house.*

Example 3: Kathleen is describing her dislike of confrontation, her tendency to avoid it, and the sense of resignation that follows.

> *When I get angry at my husband for anything, I don't necessarily deal with it head-on. I mean, I hate confrontation basically, but sometimes there's no way around it...Well, because I have a tendency to cry when I'm antry, I've tried to postpone the confrontation until the anger died down a bit. Of course, when you do that you risk the chance that, oh, it wasn't so bad after all, you know. It's not even worth talking about. It'll pass...Sometims things just aren't worth it, and I just let them ride.*

These examples illustrate the ways that women with breast cancer report attempting to control others by being "nice," pleasing them, "keeping things calm," and avoiding confrontation.

Subtheme 3: Trying To Take Control: Directing the Anger and Managing the Response

1) Directing the Anger:

Women with breast cancer feel that it is important to understand the situation and the "Other." Without understanding, they are not sure that they have "a right" to be angry, and they are not sure where to direct their anger or what to do to resolve it. The confusion which they experience when they are angry makes understanding even more difficult, intensifying their sense of helplessness and resignation. The following excerpts illustrate the importance of understanding to the woman with breast cancer.

Example 1: Iris feels that "it just doesn't help" to get angry. Understanding others is more important to her than expressing anger.

> *I really have discovered that it works for me better to try to analyze the situation and try to understand it and understand where the other person is coming from...I can't think of specific times, but I know that I have [been angry] in just my little everyday arguments that I might have at home. But I end up thinking, "Why did I get angry over that. It wasn't important for all this unpleasantness." ...If you can really talk to someone and find out where they're coming from, there ends up not really being any real reason to be angry.*

Example 2: Judith is a 72 year old woman who was diagnosed with breast cancer at the age of 60. She remembered only two incidents of anger in her lifetime. Trying to understand keeps Judith from getting angry and helps her to keep a distance and to remain uninvolved. Judith's use of "I guess," "probably," and "sort of" connotes a sense of uncertainty about her anger.

> *Well, I don't really get that angry, I guess, when you get right down to it, because I always figure there are two sides to everything...You just have to stop and think before you get angry. And I guess when you get angry it's because you didn't stop and think probably...I guess anger's caused from well, not understanding on the part of the person that's making you angry and your part, too, I guess...I try to find out what...what causes it and what I can do about it, sort of...I can look on...be on the outside looking in and not being mixed up with it.*

Example 3: Arguing was described as especially threatening to Alice, and she tries to avoid confrontation if possible. Although she could not remember specific instances of anger involving her husband, she describes their strategy for resolving their anger without argument. Understanding plays an important part in avoiding confrontation.

> *My husband and I have never had fights that have lasted more than a couple of days. I mean, and I don't even...I can't even think of a couple of days, to be honest with you, a couple of hours maybe. Leave in the morning and work it out in your head during the day and usually come together that evening.*

These examples illustrate the importance of analyzing situations, understanding the others' point of view, and solving the problems to a woman with breast cancer. Since understanding is so important to her, the confusion and the inability to understand which accompany her anger often prevent her from being able to direct her anger and to make decisions about what to do. When she does direct her anger, it is often at herself, which is experienced as further demoralizing for her. Seven of the ten women with breast cancer described diffuse anger or undirected thoughts of revenge, and six of the women in this group reported directing their anger toward themselves.

Diffuse Anger

When a woman with breast cancer is aware of her anger, she often experiences it as vague and undirected. The following examples illustrate the ambiguous nature of anger among some of the women in this group.

Example 1: Kathleen is describing the diffuse anger and helplessness which she feels toward the mammography process and the frustration of not knowing where to aim her anger.

> *It wasn't supposed to happen to me. I did all the right things, for Pete's sake, and I still can't get away from that. What went wrong? (crying) I don't know what to do with it. I mean, I don't have a vehicle to aim it towards except the mammogram at this point. I think that's why I'm so angry at that process, because it's getting all this attention and notoriety and I'm saying it's real ineffective and inefficient.*

When they are angry, women with breast cancer sometimes have violent thoughts of revenge, but even these are diffuse and undirected. The following examples illustrate both the intensity of the anger and the inability to direct it.

Example 2: When she was not allowed to stay overnight at the hospital following a biopsy, Judith knew she was angry and why she was angry. She is describing her thoughts of revenge toward "somebody."

> *I was so angry about that. I was really just feeling like fighting somebody. I really did. I felt like there's some... verbally or something. I've got to go and tell somebody off and get some results about this.*

Example 3: When Kathleen took a drive in the mountains to think about the situations in her marriage that were depressing her, she wanted to get out and take a

walk, but was afraid because she was by herself. In this passage, she is expressing her diffuse anger and her wish to be able to defend herself against "somebody".

> *What I really wanted to do was to get out and walk, take a hike or something, but I was afraid to. I felt vulnerable and that makes me feel angry. Just because I'm a female I have to worry that I can't go somewhere by myself, particularly out in the elements, without fear for my life. I have to have a companion to watch over me? That's such a crock. Why should a person have to feel that way? And then, when I feel like that, it makes me want to do something like take a self defense course so that I could just kick the hell out of somebody if they came near me, you know (laughter).*

Directing the Anger Toward Herself

When the woman with breast cancer is able to direct her anger, she sometimes directs it at herself. She may become anxious, preoccupied, and feel that she must do something to "make it right." She may even blame herself for being angry, because she thinks that she "shouldn't have been so angry." Six of the women blamed themselves for the situation or their feelings of anger.

Example 1: Iris is describing what happens when she discovers she has not pleased someone and becomes angry with herself.

> *I become very anxious. I try to do something to make it right...And I can't rest until I do something. I can't get it off my mind. I can't go ahead and do other things and just put that on a back burner. It's like something's got hold of me that...like I've got a tiger by the tail or something and I can't turn loose of it until something is resolved.*

Example 2: Although Diane has learned to acknowledge her anger toward her mother for her illness and death through her work in the support group for breast cancer survivors, she still feels that she should not have been angry.

> *I came to a realization that...that I didn't have anything to do with it and that I couldn't have helped it and my father didn't do it. And in other words, it was one of those things that has happened and I knew I was angry at that time and I shouldn't have been. In other words, I felt that I should not have...I should have understood back then and I didn't.*

Example 3: Judith blames herself and feels ashamed when she becomes angry. In this excerpt, she expresses the belief that she should not have been angry with the doctor who overlooked her breast cancer.

> *I'm always ashamed of myself when I do get angry usually in some ways. I really shouldn't have gotten so angry at that doctor, I guess.*

Directing the Anger Toward Others

Directing anger includes knowing who has angered her and why, passing judgment, and having thoughts of revenge. Although most women sometimes knew who had angered them, their judgments were vague and unarticulated and they rarely had thoughts of revenge. The following examples illustrate some of the thoughts that women with breast cancer had about others when they were angry.

Example 1: When she was angry about not being allowed to stay overnight in the hospital after her biopsy, Judith was angry. She is describing her thoughts about the lady she spoke with about it.

> *The lady just sort of made me feel like I was trying to take advantage of them and here they were taking advantage of me. That's really what it was. Kind of hard to express these things.*

Example 2: Alice is describing what she thinks about her son's unwillingness to say that he is sorry for lying to her about his Thanksgiving plans.

> *But you know, you get to the point where you think, "You're a big boy now. You've got to do verbal communication. We can't go on as if this didn't happen."*

These examples illustrate the difficulty women with breast cancer experience when they try to direct their anger. Their anger is often diffuse and undirected. Even when they do know who has angered them and why, it is hard for them to find the words to describe their experience. Without the ability to direct their anger, it is difficult for them to make decisions about what to do to changed the situation or to resolve their negative feelings.

2) Managing the Response:

Women with breast cancer managed their anger by deciding to take action, to express their anger, or to diffuse it in another way. The following examples illustrate some of the decisions made by women with breast cancer.

Example 1: Although Alice does not consider anger to be "a big issue," she has made a decision about how to live her life so that she does not take others' worries "into herself" and "stew." She describes the change that has taken place as she tries to get rid of the "shoulds and shouldn'ts"

> *Anger's just not just...it's just not a big issue with me...I grew up with so many should and should nots and shoulds and should nots and my was of gaining approval was to always do the right thing...I kept them all as my own...The priority is to be more relaxed so that I can enjoy more and try to get rid of those tensions in my life. So, whereas before I recognized that I didn't like them but I kind of took them all in, I'm not even...I'm trying very, very hard not to take all that stuff in...I do at times stew over it as I used to, but I don't...I don't take it into myself the way I used to.*

Example 2: When Iris makes a decision about whether or not to express her anger, she tends to decide that the issue is not that important to her.

> *I guess in essence I realize that its not the end of the world, whatever it is, and most of the incidents I'm thinking of, you know, not going to make or break things ...It doesn't make that much difference to me...there ends up not really being any real reason to be angry.*

Example 3: In trying to resolve her anger toward the associate who circulated rumors at her husband's church, Deborah decided to consider the positive aspect of the situation. This situation occurred seven years ago at the same time Deborah was receiving chemotherapy. It is clear from her description that she continues to feel ambivalent and that her anger is not fully resolved.

> *I realize that uh that with all the...the feelings of, I suppose, anger or whatever at having had to deal with this situation at a time when it seemed that we should not have had to put our energies and I should not have had...or should not have maybe put my energy into um dealing with that. In some ways that it was a distraction that was probably helpful in not being able to just focus on what might happen to me um or...or my own um...I don't know. I...I feel like it was probably uh as much a plus as it was a negative for me personally um...I think that sometimes when...when I realize that I still have the um...some of these...these feelings about it, I mean, that it...it's not something that in the telling I can just dismiss as uh...and say that's just the past and so forth. But it, you know, that it still brings up some of those feelings. I just don't think about it very often.*

Although the first excerpt (Alice) illustrates a decision which had positive consequences, the second and third examples are typical of women with breast cancer. Attempts to consider the others' perspective or to consider the positive

aspects of the situation often lead to ambivalence, followed by resignation and unresolved hostility.

Theme 3: Taking Action: Doing/Not Doing/Undoing

This theme is concerned with the ways women with breast cancer express their anger, and it is composed of three subthemes: Doing; Not Doing; and Undoing.

Subtheme 1: Doing

The subtheme of Doing includes the verbal expression of anger, crying, and taking action. When women with breast cancer are angry, their sense of helplessness and confusion, inability to direct their anger, ambivalence, and indecisiveness make it difficult for them to express their anger and to take action.

Verbal Expression

In spite of the difficulty in directing anger and making decisions, all women with breast cancer express their anger verbally at times. When they do, it is often delivered in a brief, unelaborated, or indirect manner. They sometimes experience relief, but they are more likely to feel that the expression of their anger was useless, to become even more upset, and/or to feel that they must do something to "make it right."

Confrontation: Talking

The following passages are taken from the protocols:

Example 1: Iris has tried to express her anger since having breast cancer but has found that it is more upsetting when she does.

> *I tried in the aftermath of my cancer in having some therapy to express my anger and I found that really didn't help at all. And I would consciously try to express it. And all I did was to end up shaking and just feeling, you know, drained instead of empowered. I read things about going ahead and expressing your feelings and expressing your anger. It doesn't help. Maybe I don't express it the right way or what. I don't know what it is. It just doesn't help.*

Example 2: Linda is learning to express her anger more openly. She describes a situation in which she expressed her anger to a friend.

> *I was angry at a good friend just the other day...She and I were looking in a window at some chairs. And she said, "You know, you really need to replace those dining room chairs you have. They're too low." And I said, "Don't, Wanda." And she said, "I've never brought it up before," and I said, "Don't now." And she didn't and we dropped it and it was...I mean, I don't feel angry with her for bringing up the fact that she thinks I need new chairs, although she's trying to tell me how to live my life.*

Example 3: Karen is describing the way she expressed her anger sarcastically to the co-worker who resented her taking time off for her cancer surgery.

> *I'm sure I didn't use those words, "I'm angry." I don't think I said that...But at one point we probably exchanged some other angry words. I don't remember specifically but I remember what I told her. I said, "Well," I know this is pretty nasty, but I told her, "Well, next time," I said, "next time...next Christmas you can have cancer and I'll work for you."*

These examples illustrate the tendency of women with breast cancer to express their anger in ineffective, abbreviated, or indirect ways, which leaves them feeling more upset.

Confrontation: Screaming or Yelling

Three of the women with breast cancer spoke of screaming or yelling when they are angry.

Example 1: In her attempts to be more expressive, Linda has also begun to "raise her voice." Linda is describing a situation in which she became angry with clients for losing drawings she had made. In spite of the expression of her anger, continued hostility is indicated by her comments.

> *Everybody was moving things around and there were four people trying to tell me what to do with the furniture and I started screaming at them. I said, "Where's the drawing? (laughter) Who's got the drawing? Let's look at the drawing!" Well, they had lost the drawing and that was so stupid to pay me all that money to tell them how to do it and then they were putzing around and they couldn't find the drawing...And I was able to raise my voice in a work situation, and so that's a great improvement for me.*

Example 2: During the twenty years of her marriage to an alcoholic husband, Diane often became angry and yelled when she would return home from work and find him drunk.

> *Most of my married life was a very strenuous existence... That was, I guess, the only time I can remember being mad and yelling...Over those year, I would yell at him...I would visualize, "Oh, what's happening at home. What's happening at home?"..."What's going to be there meeting me tonight?"...So, yep, just as I expected. And sometimes I would scream and holler about it at him, but sometimes I wouldn't. I'd just go on about my business.*

Crying

Seven of the ten participants spoke of crying when they were angry. The following excerpts are from women who were especially tearful.

Example 1: Kathleen has a tendency to cry whenever she is angry, which makes her even more upset. She cried throughout the interview as she expressed

her anger about her diagnosis of breast cancer and the inadequacy of the mammography process.

> *That's a typical response for me when I get really angry and frustrated at something. Tears automatically come. I hate that. That makes me even more angry, because it kind of defuses the bomb. You know what I'm saying? Well, I guess, if you equate it with a high level of energy, which anger is, I think, and then you turn around and cry, it's like that energy is leaking out and you lost your punch. I mean, is it just...is it a female condition or what? I would love to be able to be angry and not cry. Nothing makes me angrier than to feel angry and try to talk my way through it or scream my way through it and just be bawling.*

Example 2: Karen also has reported a tendency to cry when she is angry. She would rather "cry all night" than for her husband to be angry with her. She became tearful as she described this scenario.

> *When I do something that hurts his feelings and then...and he reacts in a certain way and then ignores me maybe, and then I get angry about that and so I just kind of pick at it and make it worse until we can have a, you know, kind of get it right again. I just...maybe if we have to stay up all night, you know, and I have to cry all night, you know, or whatever, we get it fixed somehow.*

Taking Action

Eight of the women with breast cancer spoke of taking action when they were angry but often expressed dissatisfaction with the outcomes. The following excerpts are taken from the protocols.

Example 1: Linda disagreed with a hostile co-worker who continually criticized her about a negative service review. She took action but was not satisfied with the results.

> *I remember one service review that he gave me and it was full of just picky, picky, picky, little nonsensical things. And I went out of the interview and wrote down all the things that he had said (laughter) and I took them to my superior and I asked him to review the situation and went over all the service review. I thought I was standing up to him and fighting back. Didn't seem to make much difference one way or the other.*

Example 2: Alice found it helpful to write about her feelings. She was hurt and angry when she discovered that her son and daughter-in-law had lied about their Thanksgiving plans. After "stewing" about it for about three months, she wrote her son a letter telling him how much he had hurt her.

> *I had been stewing over this ever since then [Thanksgiving]. And communication levels have not been real good, so I finally just sat down and I wrote him a long letter. Just said, you know, "This is how much you hurt me" (laughter). He has not been able to verbally even acknowledge that he got that letter.*

Example 3: When Judith was denied the possibility of staying in the hospital overnight after having a biopsy, she took action by calling and complaining and by finding out if other hospitals in the area offered better service. She describes her reaction to the situation.

> *After I got to feeling better, I called every hospital in the whole area to see. I said, "This is...this is a crime to let people do that."...The next week I called all the hospitals in the area and talked to whoever would talk to me that was high...you know, I tried to get as high up as I could get, and asked them if they could do this. And there was one hospital in the area that would do this.*

Seeking Help From Others

Some women with breast cancer took action by getting help from others. The following excerpts illustrate how these women relied on others to "rescue" them.

Example 1: Sara became alarmed when her husband became very angry and turned to his brother-in-law for help.

> *I can remember my husband being angry only one time and that was about 33 or 4 years ago when we had an Oldsmobile automobile and it rusted or there was something about that paint job and he was ready to get his gun and go kill somebody...It was just terrible and I know I asked his brother-in-law, told his brother-in-law all about it and I think the brother-in-law came to our rescue and calmed him down and helped a lot. So I guess that it's one of those things where you're having big problems, you go to somebody else to get help and (laughter) that's what I did in that case. And I think that I can, you know, in little matters I always go, you know, to find help somewhere else.*

Example 2: When her mother did not receive adequate health care for an infection while at a nursing home, Yvonne "begged" her doctor for help.

> *Later when I got in to my doctor, I went to him and begged him to take my mother's case. I got in contact with my doctor and begged him to take the case and he agreed to take her case after she came out of the hospital...He said there was no need for her to suffer like she had. And I could express my feelings to him.*

Women with breast cancer expressed their anger through their words, tears, and actions. All of them expressed their anger verbally at times. Seven of the ten participants in this group spoke of crying when they were angry, and three spoke of screaming or yelling. Three experienced relief after expressing their anger, and four were more upset. Eight took positive action, which included writing letters, making phone calls, seeking assistance from someone else, and divorcing their husbands. Three recognized that they needed to rid themselves of anger through verbal expression or relaxation.

Subtheme 2: Not Doing

Anger was so intolerable for some women that they handled their anger by Not Doing, which included withdrawing or ignoring the situation or the person. This subtheme occurred in nine of the protocols of women in this group.

Example 1: Iris was so upset when her husband Hal suggested that she not have the exploratory surgery that she ran out of the room.

> *I had been for a routine physical and the doctor thought I had a mass in my stomach or around my uterus and suggested that I have exploratory surgery...But Hal suggested that maybe I ought to wait and see what developed...I remember we were already ready for bed. It came up at bedtime. And I was so angry that I ran out of the room and ran downstairs. But he realized how much he had upset me and so he came down after me.*

Example 2: Linda's response to her own or someone else's anger was to become silent and withdraw. She is describing her reaction to her husband's anger.

> *My husband was very expressive, emotional. He'd scream and carry on and I'd get real quiet and withdraw in anger...My body was withdrawn all the time I was being lashed at. What I learned to do too at the job was to imagine that I was in a bubble, like an inflatable bubble. And if someone were really throwing some bad stuff at me, I would just...I'd sit here behind my bubble and imagine that whatever came would hit the bubble and go back into that person.*

Example 3: Kathleen also has a tendency to withdraw when she is angry. She describes the way she has handled her anger and depression over the years.

> *I've been upset over the years, depressed over the years. Maybe not so much constantly angry but I've been upset. I would want to be alone, so I would either go for a walk or holed up in my locked bedroom and read or cry or listen to music just to get relief.*

These excerpts illustrate some of the ways women with breast cancer reported handling their anger through Not Doing. Nine of the women spoke of leaving the scene when they were angry; two quit their jobs. Three ignored either the situation or the person who angered them.

Subtheme 3: Undoing

Women with breast cancer tend to be more upset after they have expressed their anger and to feel the need to "make it right." This is apparent not only in their need to apologize, but also in their need to make both positive and negative comments about those who have angered them. This subtheme occurred in eight of the ten protocols of women in this group.

Example 1: When Karen made an abrupt comment to a co-worker who expected her to do his work, she had to find him later and apologize.

> *I displayed some anger at him but it was really...really wasn't this guy...The fact that I felt like I was being taken advantage of because I was, you know, too nice, and here was somebody else trying to dump something on me just because they knew that they could...I couldn't stand having the relationship between me and this other person be affected by this. So I had to find him, you know, find him in the hall somewhere and apologize to him, you know, to kind of make things right.*

Example 2: While calling to ask about a noise which she found annoying in the apartment above her, Judith was careful not to sound like she was complaining. Later, she went to visit in order to be sure that there was no misunderstanding.

> *Upstairs over me there is a little baby, and I kept hearing this noise going back and forth, back and forth, and I was trying to concentrate on this test I'm doing...The next time I heard it I called up there and I said, "I'm not trying to complain...I'm not...I don't want to complain. I'm not calling to complain, but*

my curiosity's working overtime." ...I did go up and see the kid and it was cute. I watched her for a long time.

Negative and Positive Comments

When the women with breast cancer made negative comments about those who had angered them, they often made positive comments as well.

Example 1: Although she was constantly angry at her alcoholic mother-in-law over a period of 20 years and said she hated her, Diane made also made positive comments about her.

She was a big help except that she was a domineering person with my children, with me, with Henry. She ruled the house...I detested her. I hated her...But after we divorced, Mom and I really came to know each other. And she was...she was a wonderful mother-in-law really in a lot of ways.

Example 2: In talking about her older sister, Alice had positive and negative things to say.

My older sister was domineering and she was very, very self confident and a very, very brilliant girl. She really is a smart girl.

Example 3: Kathleen is very angry at her doctor for overlooking her cancer diagnosis for at least a year. In spite of her intense anger, she had positive things to say.

My surgeon, as angry as I was at him, is really pretty clever...so I had all this confidence in him that he did know what he was doing.

These examples illustrate the breast cancer patient's tendency to Undo after they have expressed their anger. Seven of the women expressed continued hostility by making negative comments about the person who had angered them, but each of

them also made positive comments in an attempt to undo the expression of their anger. This is consistent with their need to "keep the peace" and "make things right."

Prototypes of Women With Breast Cancer

The descriptions of anger by Iris and Deborah capture the essence of Being Angry among women with breast cancer. Brief summaries of each woman follow:

Iris is a 74 year old woman who was diagnosed with breast cancer and underwent a mastectomy and chemotherapy. She is more likely to feel hurt than angry and remembered only two incidents of anger over her lifetime. Anger is a "sinking, tight feeling" in her chest which occurs when she feels misunderstood and unsupported by others. When Iris is angry, she "closes down," "goes blank," and feels helpless and inarticulate. When she has expressed her anger in the past, she felt shaken and drained instead of empowered. Iris has concluded that expressing anger "never seems to help," and she tends to hold it in, "clam up," get out of the situation, or avoid the person who has angered her. She tends not to express her emotions, and she forgets unpleasant incidents. She tries to analyze situations and understand the other person rather than expressing her feeling. It is important to Iris to please others and to "keep things calm." She does this by anticipating situations and avoiding making decisions that might offend others. If she displeases someone, she becomes anxious and must do something to "make it right."

Deborah is a 59 year old woman who was diagnosed with breast cancer and underwent a mastectomy, chemotherapy, and reconstructive surgery. She has

subsequently been diagnosed with colon cancer and was recently found to have a benign cyst on her kidney. Deborah does not think of herself as an "angry person" and had never thought about anger in relation to herself before being asked to participate in the study. When asked to think of angry incidents, she "just drew a blank." When others are angry, Deborah tends to think "What's the big deal?" and automatically begins to calm them down and to find a solution to their problem. She cannot tolerate the expression of strong emotion and tries to keep things on "a nice balanced sort of keel." She discussed two situations in which she was unable to find a solution and felt helpless. Although she did not identify these as angry incidents at the time, she now imagines that she was angry. Her younger sister was hydrocephalic, and she imagines that she "built a shell" and covered her emotions to help her cope with her younger sister's condition.

TABLE 1

SUMMARY OF GENERAL CHARACTERISTICS OF PARTICIPANTS

	Total	Cancer Group	Cardiovascular Group
MARITAL STATUS			
Single	10%	10%	11%
Married	65%	70%	67%
Widowed	5%	10%	0%
Divorced/Separated	15%	10%	22%
CAREER STATUS			
Unemployed	10%	20%	0%
Employed	50%	40%	67%
Retired	35%	40%	33%
AGE			
41-50	3	3	0
51-60	4	3	2
61-70	7	1	6
71-80	6	3	1
TIME SINCE DIAGNOSIS			
6mo.-1yr.	1		1
1-10 yrs.	12	6	5
11-20 yrs.	5	3	2
21-30 yrs.	1	1	
31-40 yrs.	1		1

Note: One subject who was a member of the cardiovascular group was excluded from the cross-group analysis and from this table.

CHAPTER 5

DISCUSSION

It would be misleading to oversimplify the findings of this study or to imply that emotions and personality are the primary factors in the etiology and progression of cardiovascular disease or breast cancer. An individual is far too complex to consider using a single-path approach. Nevertheless, research regarding the relationship of emotion, personality, and disease has continued to provide evidence of a positive association. The results of the current study are consistent with other research findings.

The primary purpose of this study was to provide thematic descriptions of the experience of being angry among women with cardiovascular disease and breast cancer. Once these descriptions were obtained, a second purpose was to consider the descriptions from a theoretical perspective in terms of personality dynamics. In this section, the two groups will be considered separately, followed by a discussion of the similarities and differences between the two groups. The findings of the current study will also be discussed in relation to the phenomenological investigations of anger cited in Chapter 1 and in relation to research which implicates anger in the occurrence of cardiovascular disease and breast cancer.

Recent research concerning health problems in women will be presented, and the current findings will be discussed in light of literature concerning the psychology

of women. Limitations of this study and implications for further research will also be presented.

Women with Cardiovascular Disease

When women with cardiovascular disease talk about their anger, they usually begin by setting a context. The context includes an event in which their anger was triggered and their expectations about themselves, others, and the world. Most of the women with cardiovascular disease have a well defined sense of who they are and what they expect of others. Some of them describe themselves as "independent," "hard-headed," "determined," and "stubborn." They expect others to be responsible and to treat them with respect. They become angry when others fall short of their expectations because of behavior which they consider irresponsible, irritating, critical, insensitive, or unjust.

Anger arouses an intense negative response in women with cardiovascular disease. They report experiencing considerable pressure as they become increasingly aware of their physical and emotional discomfort. These women become hot, nervous, and shaky as they struggle to control themselves and to maintain their composure. They report attempting to overcome the feeling of helplessness which accompanies their anger by "doing something" to take control of the situation. They may leave the scene in order to maintain their composure and to think about what has made them angry. The more they think about it, the angrier they become. They blame other, making harsh negative evaluations and wishing to

take revenge in terms of violent thoughts and actions. As the anger builds, they report feeling explosive, overwhelmed, and out of control. When the pressure becomes too great, they may respond in an exaggerated manner, "exploding" or "blowing up." Although they usually experience relief, they may also feel ashamed that they have not controlled themselves "like a lady should."

It is important to most of the women with cardiovascular disease to determine whether or not a situation is "worth getting upset about." If they decide that something can be done to change the situation, they may try to take positive action. If they feel that change is not a realistic expectation, they often "walk away" and "hope for the best."

When women with cardiovascular disease deal with their anger either by exploding or by "walking away," they report that their anger tends to remain unresolved. Their desire to control others and the inability to do so creates suspicion and leads to continuing rumination. Each time they think about the person or situation which has triggered their anger, they reexperience the anger. Their hostile and distant behavior toward others and their hypercritical attitude may make them feel alone. They sometimes feel that they are being "consumed" or "eaten up" by hatred and bitterness.

Most of the women with cardiovascular disease recognize that their anger can be destructive if they do not rid themselves of it. They report trying to "get it out of my system" by expressing it verbally to the person who offended them, by talking to someone else about the situation, or by taking action. Expressing their

anger is usually followed by a sense of resolution and relief. If they decide not to express their anger, they try to defuse it in a different way. They may try to find something positive about the person or situation or to laugh about it. Some of the women rely on their spiritual beliefs to sustain or comfort them.

The findings of the current study are consistent with the research cited in Chapter 2 that coronary-prone individuals may be easily frustrated, anxious, and angry (Booth-Kewley & Friedman, 1987) and that interpersonal stress plays an important part in anger, hostility, and aggression (Eysenck, 1991). For women with cardiovascular disease, the desire to control others and the inability to do so appear to be primary sources of ongoing hostility. Averill (1982) has asserted that anger and hostility often represent attempts to control and regulate the actions of others. Recent studies of cardiovascular reactivity (Smith, Allred, Morrison, & Carlson, 1989: Smith, Baldwin, & Christensen, 1990) have found that "effortful" attempts to influence others produce increases in cardiovascular reactivity. These findings all point to the likelihood that the inability to control others arouses frequent cardiovascular responses which may contribute to the development of coronary disease.

As mentioned in Chapter 2, hostility has been identified as the factor in the Type A behavior pattern which is most often associated with cardiovascular disease. Further refinements in the construct of hostility have yielded a model of hostility which is consistent with the findings in the current study. Barefoot (1992) has proposed that hostility is composed of three major components: affective, cognitive,

and behavioral. The affective component is accompanied by cardiovascular reactivity (Suarez & Williams, 1990) and is thought to play a role in the pathogenesis of coronary heart disease. The cognitive component consists of negative beliefs and attributional biases which make it more likely that others' behavior is interpreted as threatening and antagonistic. The third component consists of aggression, which sometimes results in overt physical harm, but is more likely to be expressed verbally.

The cognitive component appears to play an important role in the continuation of ongoing hostility in women with cardiovascular disease. It is their negative evaluations of others, their suspicious attitude, their tendency to ruminate and to assign blame, and their desires for revenge which reactivate the anger when they think about the person or situation which has angered them. Their tendency toward ruminative hostile thoughts results in frequent reactivation of the cardiovascular system. The reactivation of intense cardiovascular responses over a period of years seems to take a toll, resulting in a weakening of the cardiovascular system and a vulnerability to the onset and progression of cardiovascular disease. A brief review of recent findings regarding the association of "blame-proneness" and suspiciousness to anger, the effect of chronic hatred and anger on the cardiovascular system, and the tendency toward a hostile cognitive style among individuals with cardiovascular disease follows.

In a large-scale descriptive study of women's anger, Thomas and her colleagues (1993) found that "blame-proneness" (the belief that others should be

blamed and punished for their wrongdoing) is predictive of anger in women. Negative thoughts about others (the belief that others are being deliberately provocative or that the situation evoking anger is unfair) and the endorsement of irrational beliefs were also associated with increased anger. When they were angry, all of the women with cardiovascular disease in the current study reported directing their anger toward others by blaming them, making negative evaluations of them, and having thoughts of revenge.

Most of the women with cardiovascular disease displayed some suspiciousness and intense anger, if not hatred, toward others. Their descriptions of others as "sadistic," "malicious," "nosy," and "insincere," are indicative of a suspicious attitude. Some of them spoke of hatred and bitterness which threatened to "consume" them or "eat them up." Suspiciousness has been found to predict mortality risk among both male and female cardiovascular patients (Williams, 1987). Hostile individuals have been found to report more angry and suspicious thoughts and to have a tendency to interpret others' behavior as intentionally provocative more frequently than nonhostile persons (Smith, Sanders, & Alexander, 1990). A high level of hostility has been linked to cardiovascular reactivity (Smith, Allred, Morrison, & Carlson, 1989). Chronic hate and anger were found to be the most significant predictors of the degree of atherosclerosis in subjects who participated in the Framingham studies reviewed in Chapter 2 (Williams et. al., 1980). The findings of the current study support the link between "blame-proneness," suspiciousness, hatred, and cardiovascular disease in women.

Williams, Barefoot, and Shekelle (1985) suggest that hostility contributes to cardiovascular disease by way of increased physiological arousal in response to environmental stressors. Specifically, they assert that hostile persons experience more frequent and extreme episodes of anger and vigilantly scan their environment more frequently. Their anger and vigilance are associated with elevated levels of neuroendocrine and cardiovascular responses, which may contribute to the development of cardiovascular disease.

When women with cardiovascular disease are angry, they often have aggressive fantasies. The more dramatic examples of violent impulses described by the participants include "the urge to kill" and wishes to "throw the phone," "chop her head off," "scratch her eyes out," "slap her," "jerk him out on his tail," "hit the ceiling," "be abusive physically," "hit him," and "to slam doors and kick and scream and kick the cat." The conflict aroused by the tendency toward being "blame prone," the desire to take revenge in an aggressive manner, and the social prohibitions against the expression of anger by women combine to intensify the experience of anger in women with cardiovascular disease and to put greater stress on the cardiovascular system.

Miller (1991) has written about the constraints women encounter within themselves and within society which make dealing with anger problematic for them. According to Miller, the cultural prohibitions which surround the expression of anger by women "exert a powerful weight, making women afraid to feel the first stirring of anger" (Miller, 1991, p. 185). In light of the unspoken dictum that "any

anger is too much anger" in women and the fear that they might explode, women with cardiovascular disease often suppress their anger and struggle with it alone. Knowing the strength of their anger, it is understandable that the "first stirrings" of anger often result in suppression, anxiety, and increased cardiovascular reactivity among women with cardiovascular disease.

Although all of the women with cardiovascular disease expressed their anger verbally at times, they sometimes chose to leave the scene and "struggle" with their anger alone. As mentioned previously, this resulted in hostile rumination and reactivation of cardiovascular response. In the Framingham population, "anger-in" (not showing or discussing anger) was related to the degree of coronary heart disease in both men and women (Williams, 1984).

Hostile comments and some of the behavior of the women with cardiovascular disease during the interviews revealed unresolved anger and ongoing hostility. The Interpersonal Hostility Assessment Technique (IHAT) introduced by Barefoot (1992) was helpful in evaluating the degree of hostility displayed by these women during the interviews. The IHAT is composed of four behavior categories: Direct Challenge, Hostile Evasion, Indirect Challenge, and Irritation. Direct Challenge involves overtly expressing antagonism toward the interviewer through confrontation or contradiction. Hostile Evasion is defined as an evasive response emitted in a manner which suggests hostility instead of a lack of knowledge. In an Indirect Challenge, the respondent answers the interviewer in a manner which implies that the question was pointless. Irritation is defined as arousal in the respondent's voice

stylistics which indicates the experience of hostile affect or the reliving of previous angry episodes during the interview. These behaviors can be quite subtle and were present in the behavior of several of the women with cardiovascular disease.

None of the women directly challenged the interviewer, but several women displayed Hostile Evasion and Indirect Challenge by making subtle comments which indicated hostility during the interviews. Most of the women with cardiovascular disease displayed considerable Irritation by reexperiencing anger during the interview and by making verbally aggressive comments about others. Some of the names which these women called those who had angered them include "mama's boy," "fool," "bunch of old ladies," "old biddies," "bunch of nuts," " that S.O.B.!" "son of a bitch," "devilmonger," "street person," "little know-it-all," "hard headed," and "good old boy." Two of the women displayed evasiveness by failing to attend their first scheduled interviews.

Smith and Christensen (1992) have recently proposed a transactional model of hostility and health in which the greater physiological arousal associated with hostility reflects the impact of both unavoidable everyday interpersonal hassles and of more frequent, severe, and prolonged interpersonal stress. They contend that hostile individuals not only respond with physiological arousal to the presence of interpersonal conflict and the resulting loss of social support, but they also create the unfavorable circumstances in the social environment which arouse them. Consequently the social environment which they help to create serves to maintain, and possibly strengthen, the hostility and the resulting cardiovascular stress.

Women with Breast Cancer

When women with breast cancer talk about their anger, they often begin by saying how difficult it is to think of angry incidents. Of the ten participants in this group, only three women remembered more than four incidents of anger over their lifetimes. Not only was it was difficult for most of these women to think of incidents of anger, but they also experienced difficulty in describing them.

The experience and expression of anger among breast cancer patients is figural against a ground of expectations of how they, others, and the world "should and should not" be. Most women with breast cancer believe that they should be "nice," "polite," "ladylike," "quiet," "helpful," and "cooperative." They should anticipate others' needs, "keep the peace," and remain calm at all times. They should not be demanding of others or display their emotions. As these women spoke quietly of their anger, it became apparent that many of them had learned these "shoulds and should nots" as they coped with difficult situations in childhood. As children in families beset by illness and death, many of them learned to meet others' needs at the expense of the development of a clear sense of who they were and what they wanted or needed. One of the women in this group spoke of the "shoulds and should nots" by which she lives:

> *I grew up with so many shoulds and should nots and shoulds and should nots and my way of gaining approval was to always do the right thing...I kept them all as my own.*

As adults, women with breast cancer often lack an awareness of what they want or need for themselves. They become hurt and angry when they feel that

something has happened that "shouldn't have happened" --- when something "unfair" occurs, when others deny them something really important, or when they feel misunderstood or unsupported by others.

Most women with breast cancer experience anger as a "terrible" feeling of tightness and heaviness around their heart or down in their stomachs. Their anger is often described as including disappointment, sadness, and hurt. It may occur quickly, but often anger "stews" over a long period of time, eventually "welling up" and coming to the surface as tears. It was difficult for these women to find words to describe the bodily experience of anger, and their descriptions of the tension they felt tended to be brief and unelaborated. Two of the women did not include bodily experience in their descriptions of anger. Women with breast cancer feel that it is important to try to understand others when they are angry. Trying to understand helps them to keep a distance, so that they can "be on the outside looking in and not be mixed up in it," and it helps them to determine if their anger is "justified," i.e., if they "should be" angry. However, anger brings with it confusion and an increased sense of helplessness. When they become angry, words often fail them, and they are unable to think clearly or to speak on their own behalf. They tend to "go blank," "close down" and to feel "rattled," "inarticulate" and "dumb." When they are angry, they sometimes feel like a "hopeless, helpless case." Their confusion makes it difficult for them to direct their anger, and they may feel a diffuse sense of being angry at "somebody." They also tend to blame themselves and to become preoccupied with trying to "make things right."

The sense of helplessness which accompanies anger tends to immobilize women with breast cancer, making it difficult for them to make decisions, to take action, or to defuse the anger in another way. Believing that their anger is of little use, they often become resigned to the situation and deal with it by minimizing its importance and by deciding that "it doesn't make that much difference." Since anger brings with it a sense of helplessness, confusion, and the threat of feeling overwhelmed, it is important to most women with breast cancer to control their anger when it does occur. They actively control their anger by holding it in, by hiding it, and by becoming silent. They also control their anger in a passive manner by not recognizing it and by forgetting about it.

Women with breast cancer are not only upset by their own anger, but they also find others' anger alarming. They try to control others' anger by being "nice," anticipating their needs, pleasing them, avoiding confrontation, and "keeping the peace." If they believe that they have angered someone, they often become preoccupied with self-blame and the need for reconciliation."

When women with breast cancer do express their anger, it is usually spoken quietly and calmly, but it may be expressed through tears, yells, or screams. Its expression seldom brings relief; instead, it is followed by the feeling that they "shouldn't have been so angry" and the need to do something to "make things right."

Comparison of Women with Cardiovascular Disease and Breast Cancer

Although the experience of anger is described differently and has different meanings for women with cardiovascular disease and breast cancer, the thematic analysis of the experience of anger revealed some basic similarities among all of the women in this study. All of the women described experiencing anger as a negative feeling which usually includes physical sensations. It also consists of feelings of helplessness and a lack of control of themselves, others, or the world; of attempts to understand, which result in either clarity and direction or diffusion and confusion; and of doing, not doing, and undoing.

Women with cardiovascular disease have a clearly defined sense of who they are, what they feel, and what they expect of others. They are concerned with right and wrong, justice, and individual responsibility. Women with breast cancer tend to define themselves in terms of others' needs and expectations. They accept responsibility for keeping everything calm, pleasing others, and "making things right."

Women with cardiovascular disease become nervous and shaky as they struggle to control a hot, explosive, consuming anger which might be compared to fire or flames. The accompanying feeling of being "out of control" of themselves, others, and the world motivates them to make decisions about how to express their anger, to take action, or to defuse their anger some other way. They sometimes leave the scene to avoid expressing their anger directly and to maintain their composure. This leaves them with unresolved anger, which manifests itself through a suspicious

attitude, continued hostility, and behavior which alienates them from others. They often express their anger verbally, sometimes in a loud and explosive manner, and they seem unconcerned about reconciliation.

For women with breast cancer, anger is a "terrible" feeling which renders them unable to think or speak clearly. Their anger might be compared to a cloud which is formed as the hurt and

anger stews, welling up as it comes closer to the surface and "leaking out" in tears. They have learned to "put a lid on" their emotions, and they are prone to "withdraw" both physically and emotionally. As their thinking becomes clouded, they experience bodily tension and a sense of helplessness and confusion which prevents them from making decisions or taking positive action. Expressing their anger often makes them more upset, and they often become preoccupied with self-blame and a need for reconciliation.

The experience of being angry involved the feeling of helplessness in all of the women in this study, but feeling helpless had a different meaning for the women in the two groups. Women with cardiovascular disease found the feeling of helplessness to be intolerable. They tried to take control by directing their anger both internally and externally. Internally, they tried to take charge by directing the anger toward others through blaming, making negative evaluations, and wishing to take revenge. Externally, they tried to take control by making decision and taking action. In contrast, women with breast cancer became overwhelmed with feelings of helplessness. They tended to go blank, to close down, and to feel inarticulate,

rattled, dumb, and confused. The feeling of helplessness tended to immobilize the women with breast cancer, making it difficult for them to understand, to make decisions, or to take action.

Women with cardiovascular disease were more decisive than women with breast cancer, and their decisions tended to be more active than those of the women with breast cancer. Women with cardiovascular disease made decisions about not letting unimportant issues upset them, about wishing to separate from others based on differences in principles, about getting the anger "out of their system," about concentrating on the positive aspects of the person or situation, about relying on the spiritual beliefs, about preparing for confrontations, and about using humor to cope with their anger. Women with breast cancer also determined which issues were important and which were not and tried to find positive aspects in the person or situation. However, their ambivalence and lack of focus often prevented them from making decisions and left them wanting to take action but feeling immobilized. They seldom used humor to cope with their anger, and they did not rely on spiritual comfort. In fact, the difficulties they faced tended to undermine their faith in spiritual beliefs.

The ways in which women with cardiovascular disease and breast cancer controlled the anger was also different. Women with cardiovascular disease were concerned with controlling their own emotions --- actively struggling to control themselves, holding their anger in, and hiding their anger. Although women with breast cancer also actively controlled their anger by holding it in and hiding it, they

tended not to recognize their anger and to forget about angry incidents --- both passive forms of control. Women with breast cancer were often more concerned with controlling others' anger by avoiding confrontation and "keeping the peace."

At times, all of the women in the study took action when they were angry by expressing their anger verbally, by writing about their anger, or by crying. At other times, all of the women managed their anger by "leaving the scene" or ignoring others. While the women with cardiovascular disease left the scene in order to maintain their composure and to think about what had angered them, the women with breast cancer tended to "withdraw," because they could not tolerate the tension created by being with someone who did not understand or support them.

The women with cardiovascular disease often expressed their anger by avoiding those who had offended them, by refusing to carry out the tasks expected of them, by hanging up the phone without explanation, and by refusing to discuss their anger with others in a productive manner. These indirect expressions of aggression alienated others and contributed to the ongoing hostility which was reflected in their aggressive comments during the interviews. They seldom reported apologizing for their expressions of anger, and they were unconcerned with reconciliation. When women with breast cancer expressed their anger openly, they often felt compelled to "undo" their expressions of anger by apologizing and by trying to "make things right." Their need for reconciliation was also displayed in the interviews by their positive as well as negative comments about those who had offended them.

One participant who was recruited through the organization which provides support to cardiovascular patients was found to have both diseases and was excluded from cross-group analyses. This participant is a 74 year old woman who was diagnosed with breast cancer at the age of 59. She was subsequently diagnosed with atherosclerosis and underwent triple bypass surgery at the age of 71. She has been married for almost over fifty years to a man who she portrayed as critical, insensitive, sadistic, and verbally aggressive. She reported that, when her husband speaks, she often feels that she has "stepped on a snake that just bit" or that she has been "stung by a bee." During the interview, she reported many incidents of anger but was unable to describe them. Her unresolved anger and continuing hostility were revealed through her numerous negative comments about others and her hostile attitude toward the interviewer.

This participant displayed characteristics of women in both groups. Her emphasis on the way one is "supposed to be," her inability to describe her experience, her belief that it is important to "be nice," the frequent suppression of her emotions to accommodate others, her sense of helplessness and resignation, and her tendency to forget negative experiences are all characteristics which she shares with the women with breast cancer. Her ability to express her anger verbally in a determined manner, her harsh negative evaluations of others, her aggressive impulses, her numerous critical comments about others, and the hostility displayed during the interview are characteristics which she shares with the women with cardiovascular disease.

Over her lifetime, this participant has learned to defend herself from her husband's critical, aggressive behavior. The following statements reveal some of the factors which may have contributed to the presence of both diseases in this participant.

> *My mother always told us that we were supposed to do what our husband wanted...we were always supposed to be nice.*
>
> *I could feel myself getting sick. And I guess it was because I was bottling everything up inside and not letting it out.*
>
> *I'm sorry that he has so much anger in him. And I'm sorry that he is so fearful of people. And I'm sorry that he laughs when bad things happen to them sometimes. And I just feel like throwing up my hands and crying sometimes but I can't let myself cry.*
>
> *I don't intend to be dominated by him.*
>
> *I am a woman of quiet desperation.*

The findings of the current study are consistent with the findings of the phenomenological investigations of anger cited in Chapter 1. Frankel (1985) found that the experience of anger included an awareness in the self of a "negative feeling," an urge to act, an awareness of the "unfairness" of the situation, and a sense of relief following the expression of anger. In the current study, most of the participants described anger as a negative feeling and reported an urge to act. Women with cardiovascular disease were concerned with justice and experienced a sense of relief after expressing their anger. Women with breast cancer often spoke of the situations which angered them as being "unfair."

Stevick (1971) found that the experience of anger among adolescent females included a bodily feeling of explosiveness, a desire to express the feeling, and a reduction of bodily tension following the verbal expression of anger. These findings are similar to those described by women with cardiovascular disease. Unexpressed anger produced feelings of tightness, tension, and stomach pains --- findings similar to those described by women with breast cancer.

Hunt (1992) found that women with breast cancer were less "connected" to their emotions and to the world than women without breast cancer. In the current study, the women with cardiovascular disease seemed more "connected" to their anger, were more aware of the situations which triggered their anger, and were able to describe their experience of anger more clearly than women with breast cancer.

The findings of the current study are also consistent with the findings of other studies designed to investigate anger. Two early studies (Gates, 1926; Anastasi, Cohen, & Spatz, 1948) aimed at investigating women's anger in small samples of college students revealed that women experienced anger when they felt "thwarted." The women in Gates' study reported that their anger was triggered an average of 3 times per week when their attempts at self-assertion were thwarted or when others had a domineering attitude. The women in Anastasi's study reported that their anger was triggered an average of 16 times per week when their plans were thwarted. Gates findings also included descriptions of violent impulses, which included wishing to shake, choke, pinch, and scratch (Gates, 1926). These

descriptions are similar to those reported by women with cardiovascular disease in the current study.

Lakoff (1987) has systematically studied the conceptual structure of anger by analyzing the expressions used metaphorically to describe the experience of anger. His analysis confirmed many of the tenets of "common folk theory" (p. 381), such as the increase of body heat, internal pressure, agitation, and interference with perception associated with anger. Lakoff's analysis revealed that there are two central metaphors for anger: "Anger Is Heat" (p.383) and "Anger Is Insanity" (p. 390). Two versions of the Anger Is Heat metaphor are "Anger Is the Heat of a Fluid in a Container" and "Anger Is Fire" (p. 383). The metaphors used to express increasing anger as Heat of a Fluid in a Container revealed that as the intensity of anger increases, the fluid rises (wells up) and produces "steam," "pressure," and attempts to "keep the pressure back." Examples of metaphors for anger as Heat of a Fluid in a Container included "stewing" and "welling up" (p. 384), "bottled up" and "suppressed" (p. 385). Lakoff found that when the pressure becomes too great and the pressure becomes too high, an "explosion" (p.388) is likely to occur (p. 385). Intensity and duration, danger to others, and damage to the angry person were found to be central to the metaphor of Anger as Fire. Metaphors used in the Anger as Fire included "breathing fire" and "consumed by his anger" (p. 388) as well as "a slow burn" (p. 381). Lakoff found considerable overlap between metaphors of anger and metaphors of insanity, including interference with perception and the impulse toward violent behavior. Anger was described as an "opponent" in a struggle which

produces an undesirable physical response, leads to interference in one's ability to function normally, and can be dangerous to others.

The findings of the present study are consistent with Lakoff's findings. The descriptions of anger by the women with breast cancer included the metaphors of Anger as Heat of A Fluid In A Container ("bottled up," "suppressed," "contained," "welling up") and revealed considerable interference with their perception. The women with cardiovascular disease used metaphors of Anger as Fire ("consumed, " "volcano"), had violent fantasies and impulses, and considered their anger to be an "opponent" which was dangerous to others and required a "struggle" to control.

Anger and Women's Health

It has long been recognized that women and men have different health problems. Women have higher rates of respiratory problems, gastrointestinal disorders, diabetes, and obesity (Rodin & Ickovics, 1990), chronic conditions such as lupus erythematosis and rheumatoid arthritis (Strickland, 1988; Verbugge, 1985), and migraine headaches (Witkins, 1991) than men. Women are more likely to be hospitalized and to use more prescription and nonprescription medications than men (Rodin & Ickovics, 1990). High blood pressure and death from strokes are higher among women than men (Strickland, 1988). Women are more likely to be referred to a psychologist, psychiatrist, or therapist (Ussher, 1991), and they are more likely to use mental health facilities than men (Strickland, 1988; Russo & Sobel, 1981; Russo, 1990). Women predominate in the majority of diagnostic categories (Russo,

1990) and are more likely to be given a diagnosis of dysthymia, major depression, anxiety disorder, and somatoform pain disorder than men (Gove & Tudor, 1973; Gove, 1980; McGrath, Ketia, Strickland, 1990). Women are twice as likely to be prescribed psychotropic drugs (Cooperstock, 1978; Chioton et. al., 1976; Fidell, 1981) and are more likely to receive ECT treatments (Ussher, 1991) than men. In spite of these findings, until recently most research concerned with health issues was conducted using male subjects.

In recent years, women's health has become the focus of more attention and research effort and women have been included as subjects in studies aimed at investigating the relationship of emotion and health. Although little attention has been focused on gender differences, gender is now being recognized as a mediating factor (Smith & Christensen, 1992). Goldstein and his colleagues (Goldstein et. al., 1988) found that suppressed anger was positively associated with elevated blood pressure in both men and women, while expressed anger was inversely related to both systolic and diastolic blood pressure in women but to only diastolic blood pressure in men.

In a study which included 372 women and 324 men, Julius and his associates (Julius et. al., 1986) found that subjects who held their anger in when they were unjustly attacked by their mate were 2.4 times as likely to die over the 12 year follow-up period than subjects who expressed their anger to their mate. Subjects with an high overall score on a suppressed anger index were 1.6 times as likely to have died than those with low or moderate scores. The small number of deaths

among the women suggested that there may be significant differences in the impact of suppressed anger on health but precluded a reliable gender-specific analysis.

In the Framingham study cited in Chapter 2 (Haynes, Feinleib, & Kannel, 1980), women were found to be more likely to suppress their anger than men. Further, suppressed anger and Type A behavior were the strongest psychosocial predictors of coronary heart disease among working women in this sample. Thomas (1989) found that men and women did not differ in the tendency to suppress their anger (anger-in), but women were found to be more likely to discuss their anger than men. Of the four modes of anger expression (anger-in, anger-out, anger-discuss, and somatic symptoms), anger-discussion was found to be the only mode of expression associated with positive health status in both the Framingham study (Haynes, Feinleib, & Kannel, 1980) and a study by Thomas and Williams (1991).

Scherwitz and Rugulies (1992) found that hostility was inversely related to physical activity and fitness among caucasian women but not among men or black women. Johnson-Saylor found (1991) that anger-in and anger-experience were positively associated with hostility and negatively associated with hardiness and positive health habits, such as exercise, relaxation, nutrition, safety, and substance use among women.

Although most research concerning hostility and its possible impact on health continue to include predominantly males subjects, some studies have been designed to investigate anger in women. Malatesta and Culver (1988) conducted a study of important events and the feelings which accompanied them in the lives of women

across 19 years. Anger was found to be the predominant feeling which accompanied memorable events.

In an investigation of the relationship of health habits (sleep, substance use, exercise, and body mass) and anger among women, Modrcin-McCarthy & Tollett (1993) found that expressing anger through somatic symptoms and cognitive anger were negatively related to perceived positive health status.

As mentioned in Chapter 2, a number of studies have been conducted involving women with breast cancer. In a two-year study involving 52 women with breast cancer, Jensen (1985) found a cluster of psychological traits in women whose cancer had spread. This cluster was characterized by a repressive personality style which included a helpless/hopeless stance, chronic stress, a tendency to engage in comforting daydreaming, and the inability to express negative emotions.

Wirsching (1982) and Scherg (1987) conducted separate studies in which women with breast lumps were tested before they were diagnosed with (or without) breast cancer. Wirsching (1982) found that all of the women with breast cancer avoided conflict by suppressing their negative emotions. Scherg (1987) found that cancer patients expressed less anxiety, displayed less Type A behavior, and were more committed to religious and social norms.

The findings of the current study are consistent with the research findings presented in Chapter 2, which strongly suggest a positive association between certain behavior patterns, personality characteristics, and the occurrence of cancer. The characteristics displayed by the women with breast cancer in this study fit the

model of 'Type C' behavior observed by Temoshok and Dreher (1992) and by Greer and his associates (Greer & Morris, 1975; Pettingale, Greer, & Tee, 1977; Morris, Greer, Pettingale, & Watson, 1981; Watson, Pettingale, & Greer, 1984, Greer & Watson, 1985).

In their book, *The Type C Connection*, Temoshok and Dreher (1992) have compiled extensive findings from their own research and that of other leading researchers and have presented a cogent argument for the existence of the 'Type C Connection.' Temoshok is careful to emphasize that she does not consider 'Type C' to be a personality type, which might limit the hope of significant change without extensive long-term psychotherapy. Instead, she considers 'Type C' to be a behavior pattern which is the opposite of the Type A behavior pattern and which is amenable to change.

Temoshok has presented the following characteristics as typical of melanoma patients (Temoshok & Dreher, 1992, p. 39).

1) They were "nonexpressors" of anger. Often they were unaware of any feelings of anger, past or present.
2) They tended not to experience or express other negative emotions, namely anxiety, fear, and sadness.
3) They were patient, unassertive, cooperative, and appeasing in work, social, and family relationships. They were compliant with external authorities.

4) They were overly concerned with meeting the needs of others, and insufficiently engaged in meeting their own needs.

The women with breast cancer in this study exhibit many of the characteristics which Temoshok found among the melanoma patients, providing support for the existence of the 'Type C' connection.

Temoshok (Temoshok & Dreher, 1992) presents an explanation of the possible connection between hopelessness/helplessness and the onset and progression of cancer. She cites work with rodents by Shavit in which "helpless" mice were found to have more sluggish natural killer cells and faster growing tumors than mice who were not subjected to experimental conditions which produced helplessness. Shavit also found that helpless mice had higher levels of opiates and that opiates were responsible for weakening the immune cells and accelerating tumor growth. Shavit concluded that, under stress, helpless animals experience a state of "mind-body analgesia" in which their brains release opiates, which then attach to immune-cell receptors and impede their functioning, resulting in reduced natural killer cell functioning.

This research is consistent with research conducted by Schwartz (1990) with human subjects. Individuals who were classified as emotional repressors or rigid responders experienced increased physical tension, heart rate, breathing, and skin resistance, and decreased defender cells when compared with their more flexible counterparts. Temoshok's (1992) work is also consistent with the findings of Levy

et al. (1984) discussed in Chapter 2 that endogenous opoids perform as mediators between the endocrine and immune systems.

Based on her own research and the finding of both Shavit and Schwartz (1990), Temoshok (1992) has proposed that emotional stress activates processes based on the "fight or flight" instincts. In individuals with Type C behavior patterns, an emotionally threatening situation triggers the hopeless/helpless response in which she/he is unable to either fight or flee. Although the stress hormones (including adrenaline) are being produced, the opiates (corticosteroids) also are being produced and are depleting the immune system, reducing the level of T-cells and other immune defenders. The higher levels of both opiates and stress hormones combine to suppress immunity by damaging T-cells and natural killer cells, both important forces in protecting the individual from the proliferation of cancer cells. Temoshok has concluded that helplessness erodes the individual's defense against disease through the communication network which originates in the emotional centers of the brain, is mediated by the neuropeptide messengers (opiates) and stress hormones (adrenalin), and changes the defenders in the immune system.

These findings have important implications for the women with breast cancer in this study. The experience of anger creates tension in the body and a sense of overwhelming helplessness in most of the women in this group, and their helplessness tends to immobilize them. When they are angry, not only does their mind fail them, but the physical response which is triggered may contribute to the deterioration of their immune system and more rapid progression of their disease.

The research findings of Greer and his associates (Greer & Morris, 1975; Pettingale, Greer, & Tee, 1977; Morris, Greer, Pettingale, & Watson, 1981; Watson, Pettingale, & Greer, 1984; Greer & Watson, 1985) were presented in Chapter 2. Briefly, Greer and his colleagues found that cancer patients tended to be conforming, compliant, unassertive, and patient and that they tended to suppress emotions, particularly anger. Further, women who were judged to be "extreme suppressor" (they had only shown their anger once or twice in their lives) and "exploders" (women who displayed their anger explosively) had higher rates of diagnosed breast cancer than women who expressed their anger more normally. Women who were judged to have a "fighting spirit" (accepted the diagnosis of cancer, adopted an optimistic attitude, sought information about the disease, and were determined to fight the disease) had a higher rate of survival than women who were classified as "deniers" (rejected the diagnosis or minimized the seriousness), "stoic" (accepted the diagnosis, did not seek further information, and adopted a fatalistic attitude), or "helpless/ hopeless" (overwhelmed by the diagnosis, experienced extreme disruption in daily living, became preoccupied with the disease and dying). Based on their findings, they proposed the existence of a personality type known as the 'Type C' individual. The women with breast cancer in this study exhibited many of the characteristics found in Greer's 'Type C' individual.

Research by both Temoshok and Greer suggests that emotional control may be important in the etiology and progress of the disease process. The research conducted by Greer and his associates (Greer & Morris, 1975; Pettingale, Greer, &

Tee, 1977; Morris, Greer, Pettingale, & Watson, 1981; Watson, Pettingale, & Greer, 1984; Greer & Watson, 1985) emphasizes the importance of suppression of anger, while Temoshok (1992) work emphasizes the importance of repression (the inability to acknowledge or remember their anger). The women with breast cancer in this study used both forms of emotional control. Most of the women were unable to remember many angry incidents, and they all tended to suppress their anger by holding it in or hiding it.

The findings in the current study were also consistent with findings of research by C. B. Thomas and her colleagues (Thomas & Greenstreet, 1973; Harrower, Thomas, & Altman, 1973; Thomas, Ross, & Duzynski, 1975) presented in Chapter 2. Thomas found that individuals whose Human Figure drawings indicated ambivalence and conflict tended to develop cancer. The need of women with breast cancer in the current study to understand others often led to ambivalent feelings toward those who had offended them. This contributed to their sense of confusion and further hampered their ability to direct or resolve their anger by making decisions or taking positive action.

Theoretical Considerations

The findings of the current study will be discussed in light of two theories. First, Blatt's theory of personality development (Blatt & Schichman, 1983; Blatt, 1990) will be presented, and the similarities between the personality configurations presented by Blatt and the personality traits of women with cardiovascular disease

and breast cancer will be discussed. This will be followed by a brief description of Eysenck's coronary-prone and cancer-prone personality types which have been presented in more detail in Chapter 2. The findings of this study will then be discussed in light of recent research findings regarding women's health and literature concerning the psychology of women.

Blatt: Interpersonal Relatedness and Self-Definition

According to Blatt (Blatt & Schichman, 1983; Blatt, 1990), personality development involves two primary tasks: the establishment of the capacity to form enduring, stable, mutually satisfying relationships and the achievement of a stable, realistic, consolidated, differentiated sense of self. He has proposed that personality development progresses along two developmental lines -- an anaclitic developmental line, which leads to the development of satisfying and intimate interpersonal relationships, and an introjective developmental line, which leads to the development of a positive, realistic, and stable identity. Development along both lines are interrelated; the development of a healthy concept of the self is dependent on having satisfying interpersonal experiences, and the continuation of satisfying interpersonal experiences is dependent on the development of a healthy concept of the self. In the healthy individual, development progresses along both lines and interpersonal relatedness and self-definition become integrated. When either of these developmental lines is interrupted, psychopathologies occur. The resulting configurations differ in terms of character traits and behavioral styles.

In the extreme, the anaclitic configuration is infantile and hysterical in nature, while the introjective configuration is paranoid, obsessive-compulsive, and narcissistic. In anaclitic psychopathologies, there are exaggerated and distorted attempts aimed at maintaining interpersonal experiences at the expense of the self. In introjective psychopathologies, there are exaggerated and distorted attempts at establishing a concept of the self at the expense of interpersonal relationships.

Individuals whose personality configurations are primarily anaclitic are concerned about interpersonal relationships and the capacity for closeness, intimacy, and giving and receiving love. They use thought primarily to employ the avoidant defenses of denial and repression, and their cognitive processes tend to be simultaneous and figurative, focusing on images and affects. Cognitions tend to be global, impressionistic, and intuitive, and may be diffuse and lacking in clarity. They tend to ignore factual detail, subtleties, and ambiguities, and they avoid contradiction and critical analysis. The development of a sense of self is neglected in the interest of establishing satisfying interpersonal relationships.

Individuals whose personality configurations are primarily introjective are concerned with self-definition, self-worth, self-control, and identity. They primarily employ the counteractive defenses of projection, which includes splitting, externalization, and intellectualization. Their cognitive processes are literal, and they focus primarily on things, actions, and thoughts rather than interpersonal ties, people, and feelings. Thinking is analytical, and they are concerned with cause and effect, responsibility, and blame. They are also concerned with power and control

and tend to be controlling, critical, and aggressive toward others. Interpersonal relationships are often neglected in the interest of establishing identity and self-definition.

The similarities between the cancer-prone individual and the anaclitic configuration on the one hand, and the coronary-prone individual and the introjective configuration seem applicable to the findings of the current study. This observation is not made to imply that the women who participated in this study are suffering from a severe form of psychopathology, but simply to consider the possibility that the woman with breast cancer displays characteristics of the anaclitic configuration, while the woman with cardiovascular disease displays characteristics of the introjective configurations.

In what ways do the women with cardiovascular disease reflect distortions in the development of the introjective configuration? Women with cardiovascular disease are interested in self-definition, self-control, and identity at the expense of interpersonal relationships. They consider themselves "independent" and "determined" and are more interested in defining themselves than in preserving relationships. A primitive forms of distortion in this configuration is expressed as paranoia, but is reflected in a less virulent form in the cardiovascular patient's suspicious attitude toward others.

The psychological defenses used by individual in the introjective configuration are an expression of a struggle to achieve a sense of self-definition and control. They are counteractive defenses and they include projection, splitting,

externalization, disavowal, negativism, intellectualization, and rationalization. Blaming, making harsh negative evaluations, and rejecting others are forms of projection used by women with cardiovascular disease. The cognitive processes of the introjective individual are focused primarily on actions (deeds), things, and thoughts rather than on feelings, people, and interpersonal relationships. The women with cardiovascular disease were less concerned with other people than on taking a stand based on their principles. Thinking is critical, analytic, and precise. Women with cardiovascular disease know what they will tolerate and what they will not. They are motivated by a sense of helplessness to make decisions and take action when they can and to move on. Individuals with a primarily introjective configuration are concerned with responsibility and blame. The women with cardiovascular disease were angry with others whose behavior they considered irresponsible, and they engaged in an excessive amount of blaming.

One emphasis in introjective individuals is on control and power. Control of themselves and others was very important to the women with cardiovascular disease. The introjective individual struggles to achieve separation from a controlling, punitive, critical, and a judgmental parental figure. Of the nine women with cardiovascular disease, only Kate spoke at length about a critical parent. Anne mentioned her step-father's verbally abusive treatment of her mother but said little about her relationship with him. Although three other women mentioned their parents in passing, there was little emphasis on this aspect of their lives.

In what ways do the women with breast cancer reflect distortions of the anaclitic line of development? Women with breast cancer are most concerned about interpersonal relationships, the capacity to give and receive love and care, and the ability to be close and intimate. These concerns are overdeveloped at the expense of a well defined sense of self. The defenses of the anaclitic individual include denial and repression. The failure to recognize anger (denial) and the tendency to forget angry incidents (repression) exemplify the two forms of defense which the women with breast cancer in this study used to avoid dealing with angry feelings. The cognitive processes of the anaclitic individual are figurative and simultaneous and are aimed at avoiding contradiction and critical analysis. This cognitive style accounts for the proclivity for feeling disorganized and confused which women with breast cancer experience when they are under duress, i.e., when they are angry. Among anaclitic individuals, unresolved issues of care, love, and affection are related to childhood trauma and a depriving, unpredictable, inconsistent, and rejecting parental relationship during childhood. Early deprivation is believed to result in vulnerability toward feelings of confusion and helplessness in the absence of a caregiving object. When others do not support them, women with breast cancer feel helpless and confused. Of the ten women with breast cancer, seven spoke of a difficulties during childhood. Iris' father died when she was young, leaving a dependent young mother with several children, all of whom have developed cancer. Diane and Yvonne both had invalid mothers, and Deborah had an invalid sister.

Blatt's theory of personality development seems applicable to the findings of the current study and seems sufficient to account for the development of the personalities of the women with cardiovascular disease and breast cancer. Blatt's theory is consistent with Eysenck's personality typology which was formulated to account for the occurrence of coronary disease and cancer.

Eysenck's Personality Typology

Eysenck's theory (1990) has been presented in detail in Chapter 2. It is mentioned here, because this theory was formulated to account for the occurrence of both cardiovascular disease and cancer and seems applicable to the findings of the current study. Briefly, Eysenck (1990) has proposed that coronary-prone individuals and cancer-prone individuals are both vulnerable to stress because of their respective personality characteristics. Cancer-prone individuals are dependent on a highly valued object for their happiness and well being. They experience this object as absent and withdrawn, and they are chronically stressed by isolation from it. The cancer-prone individual has not achieved autonomy and experiences hopelessness and helplessness as she/he continues to seek nearness to the unavailable object. Likewise, coronary-prone individuals are dependent on a highly valued object, but this object is the source of distress and unhappiness. They experience chronic stress, because they are unable to disengage from the object in spite of its negative valence. The findings of the current study are consistent with Eysenck's formulation of cancer-prone and coronary-prone personality types.

The findings of this study support the possible link between personality and disease. Blatt's (1990) theory accounts for the development of two personality configurations which seem vulnerable to each of the two diseases investigated in this study. Eysenck's (1990) theory, which is presented in less detail, accounts for different personality types which are predictive of the occurrence and progression of coronary disease and cancer. Although there is still considerable controversy over whether the differences in individuals is due to a personality type or to a behavior pattern, researcher like Eysenck (1990) and Temoshok (1992) are committed to finding interventions which will facilitate the growth and development of individuals with life-threatening disease so that their quality of life and length of survival will be enhanced.

Psychology of Women

The psychology of women grew out of the feminine social movement of the 1960s and 1970s and provided impetus for research aimed at investigating the behavior of women. Three important events contributed to the establishment of the psychology of women as a distinct field within psychology: the formation of the Association of Women in Psychology in 1969, the formation of Division 35 of the American Psychological Association in 1973, and the publication of the *Psychology of Women Quarterly* in 1977 (Kahn & Yoder, 1989).

Hyde and Rosenberg (1980) trace the psychology of women to an area of specialization within the field of psychology known as "differential psychology," (p.

4) which focuses on individual differences in behavior. According to these authors, the psychology of women has emerged as a distinct area of specialization in which research has revealed important differences and similarities among women as well as differences and similarities between women and men.

According to Hyde and Rosenberg (1980), there are several reasons for studying the psychology of women. First, they recognize that many of the traditional psychological theories are actually "theories about man" and that women have been viewed as a "variation from the norm" (p. 5). Similarly, they acknowledge that a sex bias has existed in psychological research, which has resulted in the selection of male subjects as a focus of investigation. Finally, they view the female experience as qualitatively different from the male experience because of culturally-defined gender roles which are unique to women and because of biological-produced experiences, such as menstruation, pregnancy, child-birth, and breastfeeding, and motherhood.

Much of the recent research points to the importance of socialization and impact of cultural expectations on the experience and expression of emotion.In their book entitled *Women, Gender and Social Psychology*, O'Leary, Unger, and Wallston (1985) include research relevant to the psychology of women in which several important trends are noted. While some biological differences (e.g., menstruation, lactation, pregnancy) between the sexes have been found to result in gender-specific psychological phenomena, most behaviors traditionally assumed to be more characteristic of one sex than the other were found to reflect social learning

and values. Behavior was found to vary as a function of the social situation and could not be adequately explained apart from the social context in which it occurred.

In their review of traditional and feminist models of masculinity and femininity, Spence and Sawin (1985) found that masculinity and femininity tend to be perceived differently for the self and others. Both women and men were found to organize their perceptions of others based on physical characteristics. Women were found to define themselves in terms of their roles, while men used traits to organize self-perceptions.

In her book *In a Different Voice*, Gilligan (1982) challenges traditional theories of moral development, which were based primarily on psychological studies in which women were excluded. Gilligan's conclusions concerning moral development in women were based on the analysis of interviews collected from three studies conducted over a ten year period. Two of the studies, the College Student Study and the Rights and Responsibility study, included male and female subjects; only women were included in the Abortion Decision Study. On the basis on these studies, Gilligan concluded that women and men conceptualize moral problems and describe relationships between themselves and others differently. Gilligan found that, in keeping with Kohlberg's conception of moral development, men identify morality with "justice," which includes basic rights, a sense of fairness, and universal ethical principles rights (p. 20). In contrast, women identify morality with an "ethic of care" (p. 74). In the Abortion Decision Study, Gilligan observed a sequence of three basic shifts in subjects' thinking as they developed the ethic of

care. The initial focus on was on caring for the self as a means of survival. This was followed by a transitional phase in which the judgement was criticized as selfish. Criticism signaled a new understanding of the connection between the self and others which was based on the concepts of "responsibility" and "maternal morality" (p. 74). According to Gilligan, maternal morality equates good with caring for others and insures the survival of dependent and unequal others. When a woman identifies others as the only legitimate recipient of her care, disequilibrium is created and a transition in the woman's thinking occurs. At this point, the woman experiences the third shift as she reconsiders the relationship, dissipating the tension between selfishness and responsibility by establishing a balance between self-sacrifice and care. About the new understanding of the relationship of self and other, Gilligan writes:

> *Care becomes the self-chosen principle of a judgment that remains psychological in its concern with relationships and response but becomes universal in its condemnation of exploitation and hurt...In this sequence, the fact of interconnection informs the central, recurring recognition that just as the incidence of violence is in the end destructive to all, so the activity of care enhances both others and self. (p. 74)*

Gilligan's findings regarding differences in anger and aggression among subjects in the College Student Study are of particular interest. In addition to interviews, 50 female and 88 male subjects were asked to write stories in response to six TAT cards. Two of the cards provided illustrations of close personal affiliation and two were chosen to illustrate impersonal achievement situations. The thematic analysis centered on a comparison of stories written about these two sets of

pictures. Gilligan found that, not only was there was a far greater incidence of violence in stories written by men than those written by women, but there was a statistical difference in the distribution and substance of violent fantasies, indicating a difference in the ways women and men imagine relationships. The male subjects tended to project violence into stories about intimate relationships, while the female subjects tended to project violence into situations of achievement and competition. Images of violence in men's stories were greater in pictures where people were closer together, while images of violence were greater in women's stories about pictures in which the people were set further apart. Gilligan concluded that "men and women may experience attachment and separation in different ways...each sex perceives a danger which the other does not see---men in connection and women in separation" (Gilligan, 1982, p. 42).

In her book *Anger: The Misunderstood Emotion*, Carol Tavris (1989) defines anger as "a process, a transaction, a way of communicating" (p.19) which occurs in a social context. Tavris writes:

> *...most angry episodes are social events: They assume meaning only in terms of the social contract between two participants. The beliefs we have about anger, and the interpretations we give to the experience, are as important to its understanding as anything intrinsic to the emotion itself" (p.19).*

Tavris believes that the meaning one assigns to their emotions and actions is in keeping with their history, needs, and understanding of the social rules which govern appropriate expression. According to Tavris, "the decision about whether or

not to express anger rests on what you want to communicate and what you hope to accomplish" (p.131).

Miller (1991) suggests that the experience and expression of anger are defined and constrained differentially for women and men by cultural norms. Further, Miller contends that the fact that anger has been encouraged differentially continually produces anger. Miller sees society as being largely patriarchal, with men as the dominant group holding all legitimate authority, leadership, and power, and women as a subordinate group. Miller proposes that members of a dominant group behave toward members of any subordinate group in the following predictable ways: they tend to act destructively toward subordinates; they restrict subordinates' range of action; they do not encourage the full and free expression of experience among subordinates; they characterize subordinates falsely; and they accept all of the aforementioned behaviors as "normal" or "natural." (p. 183). Further, subordinates are usually dependent on the dominant group economically, politically, and socially, and their views and experiences are usually excluded from what is commonly accepted as "knowledge." According to Miller, subordination by virtue of its oppressive nature inculcates and constantly generates anger among the members of subordinate groups. Miller contends that women, as members of a subordinate group, have been socialized to feel weak, unworthy, and as if they have no right to be angry. According to Miller, women have been socialized to believe that anger will disrupt her relationships and, thus, represents a threat to her life's work, which has been defined by cultural norms as "upholding, maintaining,

supporting, and enhancing other people's development as well as relationships between people" (Miller, 1991, p. 187). Miller contends that women, as subordinates, have accepted their role as caretakers for society, while men, as members of the dominant group, have been exonerated from their responsibility to contribute to the development of and care for others.

In her book *Women's Reality*, Schaef (1981) proposes the existence of various systems within western culture and emphasizes the importance of the "White Male System" (p.1) in shaping the lives of women and in maintaining the status quo. In the following excerpt, Schaef expresses her belief that the White Male System determines every aspect of American life. Schaef writes:

> *It is crucial to be able to define this system and deal with it simply because it surrounds us and permeates our lives. Its myths, beliefs, rituals, procedures, and outcomes affect everything we think, feel, and do...It is the system in which we live and in it, the power and influence are held by white males. (p. 2, 3)*

Schaef believes that there are other systems within American culture, including the "Black System," the "Asian-American System," the "Native American System," and the "Female System," which are subordinate to the White Male System. Members of all of the other systems must understand the White Male System as well as their own system in order to survive in everyday life. Schaef likens the White Male System to pollution, because it is everywhere in our culture and is, therefore, difficult to see. Schaef believes that women (and members of other subordinate groups) define themselves according to the White Male System, because they have been trained in it and survival depends on knowing and supporting the

system. Schaef contends that women often comply with the expectations of the White Male System in order to win acceptance; in so doing, they often betray themselves.

According to Schaef, women (and members of other subordinate groups) are understandably angry at have been defined as inferior since birth, and they have channelled their rage in several ways. Some women have become "super-competent" (p.56), venting their rage by exercising power over others. Other women handle their rage by becoming a "seductress" (p. 56) and using their sexuality to attract and control men. A third way for a woman to manage her anger is to become "ultrafeminine" (p. 56), being passive and deferring to men, who she sees as stronger and wiser, while making them dependent on her for reassurance of their maleness. Some women vent their anger by abusing their bodies through chemical dependency or obesity, while other women use depression as a weapon, making themselves and those around them miserable. Finally, some women become the "Good Christian Martyr" (p. 57), releasing their rage through suffering and sacrifice and controlling others by inducing guilt. Schaef believes that women resort to these modes of anger expression because they do not have direct or healthy outlets for the anger that naturally accompanies the inequity of their culturally-defined inferior position. Schaef's assertions are reminiscent of those made thirty-five years earlier by French existentialist Simone de Beauvoir (1953/1974), who described woman as "the second sex."

The stereotypical behavior patterns described by Schaef (1981) embody some of the feminine characteristics considered pathological by mental health professional of various disciplines in the classic study by Broverman and his colleagues (Broverman et. al., 1970). This study, aimed at investigating the effect of gender bias on diagnosis, revealed that the criteria for healthiness in men and adults were the same, but the criteria for healthiness in women were different. Broverman and his associates (Broverman, et al., 1970) wrote:

> *healthy women differ from healthy men [and healthy adults] by being more submissive, less independent, less adventurous, more easily influence, less aggressive, less competitive, more excitable in minor crises, having their feelings more easily hurt, being more emotional, more conceited about their appearance, less objective, and disliking math and science. (p.4)*

The findings of Broverman and his colleagues strongly suggest that femininity is seen as pathological and, therefore, women are faced with a paradox. They must conform to the female sex role stereotype to be considered a healthy woman, but healthy women are seen as unhealthy adults. To be considered a healthy adult, the woman must reject the feminine role model, but is then seen as being an unhealthy women. Clearly, women are presented with a double bind in which they are labeled as unhealthy one way or the other.

More recently, Sherman (1980) reviewed 10 studies of attitudes of therapists and counselors toward women and found that, in spite of the publicity of the Broverman findings and the expected changes in society's attitudes toward women, stereotyping still exists among mental health professional.

In her book *Women's Madness: Misogyny or Mental Illness?*, feminist Jane Ussher (1991) examines the nature and causes of mental illness in women. Ussher emphasizes the importance of social construction in the diagnosis and treatment of women and places female "madness" in the sociopolitical arena. About labelling of women's anger, Ussher writes:

> *The labels applied to women, labels which so cleverly place the problem within her as a person, distracting from the social reality of her life, serve to mystify the reality of her oppression, a process buttressed by the gender bias in psychiatric nosology, the labeling process itself. (p.168)*
>
> *The message to women is clear--dabble with the muse, attempt to enter the male world of learning, of thinking, of creativity, and you may pay the highest price...This somewhat depressing analysis makes clear why many women are distressed. Many women are angry; many women are mad; and many others are labelled as such. When we look at the discursive practices which regulate women's lives, at the reality of the misery of many women's existence, at the absence of alternatives to madness as a form of expression, this is not surprising. (p.282)*

Harriet Lerner has written articles and books concerning anger, intimacy, and therapy with women. In her book entitles *Dance of Anger*, Lerner (1985) explicates the causes and patterns of anger based on her understanding of psychoanalytic and family systems theory and provides strategies for using anger constructively to make lasting changes in important relationships. In the following excerpt, Lerner defines anger as a "signal" (p. 1) which may warn women that they are being hurt, violated, ignored, or exploited. Lerner writes: "Just as physical pain tells us to take our hand off the hot stove, the pain of our anger preserves the integrity of the self" (p.1). Lerner asserts that most women fall into one of two categories: the "nice

lady" category, which is composed of women who avoid anger and conflict, and the "bitchy" category, which is composed of women who fight, complain, and blame others. Lerner notes that both styles of managing anger are ineffective, serving to "maintain, and even rigidify, the old rules and patterns in a relationship, thus ensuring that change does not occur" (Lerner, 1985, p. 4). There are striking similarities between Lerner's description of the "nice lady" and the woman with breast cancer on the one hand and the "bitchy" women and the woman with cardiovascular disease on the other.

In her book *Women in Therapy* Lerner (1988) asserts that, while biological and developmental factors contribute to the difficulties women experience with anger and aggression, socialization plays a major role in determining the ways women manage their anger. According to Lerner, anger and aggression are still considered masculine in men and unfeminine in women in spite of changes which have occurred as the result of the feminist movement. Lerner describes the "envious, castrating man-hater," the "passive-aggressive housewife," and the "infantile, irrational... hysterical bitch" as examples of neurotic positions often adopted by women when the direct and appropriate expression of anger is inhibited (p. 52). According to Lerner, the thought of female anger arouses deep intrapsychic fear, resulting in the "myth of the feminine women" (p.52) as being devoid of anger and aggression.

Lerner traces sex role stereotypes, as well as the devaluation of women, to the infant-mother relationship. Lerner asserts that cultural stereotypes of adult gender

interactions is a reversal of the infant-mother dyad, in which the child is helplessly dependent on the powerful mother figure, who has the power both to gratify and to frustrate the infant's dependency needs. Lerner sees men's needs for independence, intellectual superiority, and physical prowess, as well as their needs to seem older and more experienced, unemotional, and active (versus passive) as unconscious reactions to their position as weak, affective labile, and passively dependent infants in relations to an active, intellectually and emotionally controlled, and omnipotent mother. According to Lerner, the male infant is encouraged to master his environment and, in so doing, he masters the primary object of dependency and establishes himself as dominant and in control of the female object on whom he was initially dependent.

Lerner recognizes that this reversal could not occur if women did not also accept the culturally determined sex-role stereotypes which have become institutionalized as values and mores in cultures throughout the world. Lerner contends that women's difficulties with anger stem not only from the feminine socialization process, but also from deep intrapsychic conflict. According to Lerner, there are two intrapsychic determinants which are central to the understanding of women's fear of their own anger: women's irrational fears of their own omnipotent destructiveness and difficulties in separation and individuation in the mother-daughter relationship.

According to Lerner, a woman's fears of her own omnipotent destructiveness can be traced to the early maternal imago. As a mother, a woman not only

provides rewards for the growing infant, but she must also inflict unavoidable punishment and narcissistic injury as she socializes the child. The child must move from fused, undifferentiated symbiosis with the mother to increasing individuation, separation, and autonomy. The struggle between regressive dependent wishes and autonomous strivings inevitably generates rage and aggressive impulses toward the object of dependence. Lerner writes:

> *Because of the child's heavy reliance on primitive projection, one aspect of the early maternal imago that persists in the unconscious of even the most 'rational' adults is that of a vengeful, angry, possessive, all-powerful bad mother who restricts her child's autonomy, freedom, and growth" (p. 55).*

According to Lerner, the negative elements (destructive, omnipotent, bad) of the internalized maternal imago present a dilemma for females as they identify with their mothers, and they may defensively shift to a position of helplessness to avoid such a fearful identification. Therefore, the self-experience of being helpless may mask the self-experience of being destructive and omnipotent, especially in relation to men.

Lerner believes that difficulties in separation and individuation between daughter and mother also contribute to women's fear of their own anger. According to Lerner, the experience of anger involves feeling separate, different, and alone. Feelings of separateness arouse an unconscious fear of object loss and separation anxiety, mobilizing the woman to cry, apologize, criticize herself, or express hurt in an effort to draw the object closer or to nullify the anger. According to Lerner, separation anxiety in women stems from the experience of lacking attachment to an

object and to feeling alone which accompanies anger. Separation anxiety in women can be traced to the difficulty which women experience in achieving separation and autonomy for their mothers.

Lerner contends that establishing separateness and difference from a mother is a more complex and difficult task for women than for men. Males go through the developmental process by assimilating differences from the mother, while girls assimilate sameness to the mother. Because the boy and his mother are anatomically different and because of the bipolar concepts of femininity and masculinity, most mothers want their sons to be masculine and help them to assert their differences. In contrast, females are not only anatomically similar, but the bipolar concepts of femininity and masculinity may discourage the girl from being different from the mother and encourage the acceptance of traditional feminine roles. If the mother unconsciously reacts to her daughter's efforts toward separation and individuation by subtly withdrawing approval and love instead of reinforcing these efforts with love and approval, the girl may interpret her mother's reaction as an indication that she (the daughter) has been disloyal by violating the bond between them. She may attempt to restore and preserve the threatened object relations by assuming a passive, conforming, and helpless stance. According to Lerner, the expression of anger arouses too much anxiety in women who have not achieved the degree of autonomous functioning which would allow them to tolerate the risk of standing alone and facing disapproval. Women who have unconscious wishes to remain loyal to their mothers are not only inhibited in the expression of anger, but

also experience difficulty in engaging in any activity which would elicit feelings of aloneness and autonomy. Therefore, they may find it difficult to think creatively, to act assertively, to tolerate the competition necessary to achieve success in a profession, or to establish and maintain loving relationships based on equality and mutual respect.

Gilligan and Lerner have challenged traditional psychological theory and have contributed to a deeper understanding of female development, motivation, and personality. The writings of Tavris, Miller, Ussher, and Schaef have emphasized the importance of socialization, cultural expectation, and social context in shaping and constraining women's behavior.

Kahn and Yoder (1989) envisioned improvement in the status of women through social change as one of the primary goals of the psychology of women and have expressed dissatisfaction with the lack of progress. The writings cited in this section emphasize the importance of cultural norms, social learning, and social construction in defining and restricting women's experience through stereotype, subordination, labelling, and differential diagnosis and treatment. It is clear that the strong social prohibitions against the expression of anger in women have a profound negative impact on their emotional and physical health and that more investigative work concerning women's anger and its effect on physical and mental disorders is needed.

Limitations of the Study

The women who participated in this study were not selected randomly and may not be representative of women with cardiovascular disease and breast cancer. First, all of the women who participated in the study were white and were of middle socioeconomic status. They were all members of organizations which provide educational and/or psychological support to its members. As women of middle socioeconomic status and as members of these organizations, these participants had been exposed to educational materials concerning with the relationship of hostility, stress, diet, heredity, and other factors believed to contribute to the development of health problems.

Additionally, most of the women with breast cancer actively participated in psychotherapy groups which were led by licensed psychotherapists. As members of psychotherapy groups, these women were beginning to explore their emotions, to become more "connected" to their anger, and to differentiate and articulate their feelings. It is likely that the women with breast cancer who participated in this study may have been more aware of their anger than women with breast cancer who had not participated in group psychotherapy.

Some women who were informed of the study chose not to participate. One woman with cardiovascular disease expressed concern regarding the impact of the interview process on her health and declined to participate. In phone conversations in which the interviews were scheduled, eight of the ten women with breast cancer stated that they did not feel angry often and did know much about anger but would

be willing to participate. It is likely that the women who agreed to be interviewed about anger may be atypical of some individuals with these two diseases.

Implications for Further Research

As the concept of the Type A behavior pattern has been refined over the past thirty years, hostility has emerged as an important contributor to the development of cardiovascular disease. Most research on cardiovascular disease has been conducted along an individual-difference dimension with little attention to the social contexts in which hostility occurs. The results of a small number of studies using the Hostility Scale of the Minnesota Multiphasic Personality Inventory and social stressors are consistent with the psychophysiological reactivity model. Investigation of hostile cognitions and hostile behavioral styles would isolate psychosocial correlates of hostility and contribute to an clearer understanding of the dynamic relationship between hostile individuals and the social environment.

Studies designed to investigate the correlates between hostility and the early family context are also needed. This could provide important information concerning possible risk factors for the development of cardiovascular disease.

Spiegel and his colleagues (Spiegel, Bloom, & Yalom, 1981; Spiegel, Bloom, Kraemer, & Gottheilie, E., 1989) have carried out some important research on the benefits of expressive-supportive group psychotherapy with breast cancer patients. Half of a group of 86 women with advanced metastatic breast cancer were randomly assigned to a group therapy program, and the other half received routine medical

care. After ten years, the women who had participated in the therapy groups had lived almost twice as long as those who had not been in the group. Most of the women with breast cancer in the current study have participated in psychosocial group therapy and have begun to explore their emotions. Research efforts must continue in this area in order to provide the opportunity for improvement in the quality of life and survival for women with this disease.

More studies are needed to track the progress and survival of cancer patients in order to determine the relationship of emotional expression to the progression or remission of disease. In addition, research is needed to identify the cognitive correlates associated with helplessness among women with breast cancer so that therapeutic interventions may be designed to help them recognize their tendency toward becoming immobilized by a sense of helplessness, despair, and resignation.

In the past decade, there has been a growing awareness that women have been excluded as subjects of scientific exploration. Although progress has been slow, women are now being included as research subjects. It will be important for this trend to continue. In addition, long-term studies like those conducted by Caroline Bidell Thomas, Sandra Thomas, and Lydia Temoshok are needed using healthy as well as diseased populations to determine the precursors of disease.

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APPENDICES

APPENDIX A-1

RECRUITMENT LETTER AND SIGNUP SHEET FOR PARTICIPANTS

(Date)

Wellness Community - Knoxville

Dear Member:

My name is Gayle Garrison and I am a doctoral student at the University of Tennessee. I am currently working toward my Ph.D. degree in Clinical Psychology, and I have a special interest in behavioral medicine and health psychology. Health Psychology is a specialized area in psychology that deals with the relationship between psychological components, such as emotions, and physical illness. Within the next few months, I will be conducting research designed to explore the experience and expression of emotion in women.

In recent years, there has been a growing awareness of the importance of the emotion of anger on physical health. I am interested in learning more about the experience and expression of the emotion of anger in women, especially women with breast cancer. The founder and directors of the Wellness Community have recognized the value of this research and have agreed to allow men to ask for participation by members of the Knoxville Wellness Community.

My study will consist of interviews, which will take about 45 minutes to one hour, in which the participant will be asked to describe her experience of anger in as much detail as possible. The interview will be analyzed and, at a later date, the participant will have the benefit of a feedback session in which the results of the interview and implications for positive health status will be discussed. I am looking for participants who are 40 years old or older and who have been diagnosed with breast cancer for at least six months.

I believe that this is an important study for women with breast cancer, and I would appreciate your considering participation in the study. Please sign the attached sheet if you might be interested in participating and I will call you to discuss the project in greater detail. Thank you.

Sincerely,

Gayle S. Garrison, M.A.T., M.A.

WOMEN INTERESTED IN PARTICIPATION IN A
STUDY OF EMOTION IN WOMEN WITH BREAST CANCER

This study offers an opportunity for exploration of the life-world of women in the area of emotional expression. Thank you for your willingness to participate in research into this important area of experience among women.

Name	Age	Length of time since diagnosis (at least 6 months)	Phone #

APPENDIX A-2

INFORMED CONSENT FORM

You are invited to participate in a research project designed to explore the relationship of emotional expression to physical health. You were selected as a possible participant in this study because you have been diagnosed as having cardiovascular disease.

Each participant in this study will be interviewed separately. Interviews are expected to require one to two hours. In order to ensure accuracy, all interviews will be audio-recorded and transcribed verbatim by the researcher or a legitimate research associate. Identifying information will be changed in the transcripts to ensure confidentiality, and transcripts will be reviewed only by the investigator or qualified researchers who are trained in phenomenological analysis. No names will be on the interview data.

Audio-recordings and transcripts will be stored in secure computers and locked file cabinets. Audio-recordings will be erased after they have been transcribed, and a numerical identification code will be assigned to the data. Precautions will be taken to secure identified information so that only the investigator and legitimate research associates will have access to it. There will be no supplemental uses of the tapes which might open them to use by unauthorized individuals.

Participation in this study is voluntary, and you are free to withdraw or discontinue participation at any time without penalty or loss of benefits. The results of this study will be made available to you if you so choose. They may be helpful in understanding and managing emotions in ways which are conducive to positive health status.

Your signature indicates that you have read and understand the above information, that you have discussed this study with the investigator, that you have decided to participate based on the information provided, and that a copy of this form has been given to you.

_____

Signature Date

_____

Signature of the Investigator or Witness

APPENDIX A-3

FOLLOWUP LETTER TO ALL INTERVIEW PARTICIPANTS

(Date)

Dear (Name of Participant):

Enclosed you will find a typed copy of out interview about your experience of anger and two summaries for your review. If there are any summary statements which do not seem accurate, feel free to make comments, change the wording, and make any revisions or additions you feel are necessary to describe your experience. If revisions are necessary or if you wish to make any additions, please send the revised copy to me in the enclosed self-addressed stamped envelope. I will contract you by phone in the next few weeks to arrange a feedback session to discuss the results of the study and the implications for positive health status.

I appreciate your interest and participation in this study and look forward to talking with you again in the near future.

Sincerely,

Gayle S. Garrison
(615) 691 - 7527

Enclosures

APPENDIX B-1

VERBATIM INTERVIEW TRANSCRIPT OF PATIENT WITH CARDIOVASCULAR DISEASE

I: Please think of some times when you have been angry and tell me about one or two of those times in as much detail as possible.

S: Well, the first one that comes to mind is when I was...after you have heart surgery, you have a complete change of perspective and you view things much differently than you did before. You realize your mortality. You realize that it's pretty silly to get upset over much that isn't very important. And you have this desire to help other people who are going through the same thing. And so I volunteered. The only thing they had available at the hospital at that time was pink ladies and then they called them patients' representatives. Well, as it turned out, they were not patients' representatives. They were representatives for the hospital, you know. They'd go in and say, "How do you like your service?" Well, of course, that just tied me up like that (gesture) because you're not in the hospital for service. You're in the hospital for care. And I went in with the stipulation that heart patients would be the people that I would see, that I would deal with, because I was not interested in the other. And for a while that went along just fine and the nurses reported back to my supervisor that I was, you know, being very successful at it and I think some of the other women did not like that. And so one day when I went in she said, "Well, (name), you're not going to be on the heart floor anymore. You're going to float." I didn't say anything. I went through with it and I... she said, well ... and then when I finished, she said, "Are you going to lunch with us," and I said, "No, I'm going home." And the more I thought about it, the angrier I became. I was livid! And she did not have the courtesy to call me on the phone and tell me what the story was. She had someone else do it. Well, I'm afraid I was anything but a lady when I was talking that way because I was so miserably upset that they would do me that way. And so I resigned. And then a couple years after that I found out about Mended Hearts and, of course, I joined mainly so that I would be able to be a visitor, and so I did and I took the training and I've been doing it for over five years now. And um I um we had to go into (place) previously because there wasn't any heart surgeon here in (place). But um once it opened up, I started...I told them in (place) from the beginning that when we had a hospital out here that was doing heart surgery, that that's what...that I wanted to be out here. Well, no one assisted me in setting up the program at all. I don't know what it was that quite got into (name)'s craw, but anyway, something, and...but I just went ahead and pushed ahead and made the arrangements and I had to go through lots of people and get help and that sort of thing, and finally I was ready to start. And she still wasn't terribly pleased about the whole thing. And so I...I thought well, I'm

going to go ahead and do it...and then she said, "Well, (name), if it were anyone but you I wouldn't let them do it." But...and I started out on my own. I didn't have any help at all because people didn't know about it. And I didn't want anyone to be in the program who did not volunteer, because if you coerce people into something like that, they're not effective. And I have five of the greatest people in the world working with me, you know, and they're all men for some reason. I don't know. They're the ones that...well, of course, there are a lot more men heart patients, although that percent is changing rather drastically now and...

I: So where is that program?

S: That's at the (place) Hospital.

I: I see.

S: The (place) Center.

I: Uh-huh, I see.

S: And so we've been...I've been doing that for two years now. For six months I was on my own, and then one fellow came in and then it wasn't too long after that that I had...well, my husband from the beginning did not like to visit and he didn't feel that he was qualified since he hadn't had heart surgery. So he does the book work, which is what I hate. And these other four men are just marvelous.

I: I want to go back to the incident in which you were so angry so that I can begin to understand what it was like for you. You mentioned that the woman told you that you would no longer be able to do work on the heart floor (Uh-huh.) and that you would be floating. Can you describe your feelings at that time?

S: Well, I felt that she had betrayed me because we had...I had gone with the understanding that I would be seeing, you know, heart patients. And I felt that she was being probably influenced by some of these other women who liked to think of themselves as socially ...(laughter) whatever you want to call them anyway and they may have been friends that she played bridge with and that sort of thing. Well, I don't play bridge. I find other ways to spend my time. But I just felt betrayed. And the longer I thought about it, the more I was totally out of control. I really was. I have never been as angry in my life, I guess.

I: Okay. Were you angry when she told you?

S: I was, but I held it in.

I: Do you remember what that was like for you to hold it in?

S: It was a struggle for me to get through the couple hours that I had to work and to get my report in. It was all I could do to, you know, maintain any composure at all.

I: Can you describe that feeling for me?

S: I really don't know how to describe it. It just...I just felt...well, like I say, I had been betrayed and I just couldn't accept that. I mean, she had given me her word and it was very distressing to me.

I: And it was a struggle to stay and work.

S: Yes, very much so.

I: What would you have done if you weren't doing that?

S: What do you mean?

I: Was there an urge to...I mean, if it was a struggle for you to stay there, what was your wish?

S: I wanted to be out of there as soon as possible. Because I was afraid I would lose control there and I didn't want to.

I: You mentioned that you got angrier after you left. Can you say more about what that was like for you?

S: I (laughter) felt like I would explode if I just did not get rid of that because I was just ...I don't remember ever being as angry as I was then.

I: How did you know you were angry?

S: Well, it was very obvious to me that I was angry. I felt out of control really. I didn't feel that I had control of my emotions or my actions. I just was overwhelmed.

I: So there was a fear that you would explode?

S: That's the way I felt, yes.

I: Was that located anywhere in you; did you feel it anywhere?

S: I think I was just totally consumed by it. I don't recall any particular area.

I: It just felt overwhelming and you felt it everywhere ...a fear of exploding. (Uh-huh.) And so after you left, what was it like for you to have that anger continuing, or building is what it sounds like.

S: Well, obviously,I was very uncomfortable, I'm very ... I think my husband thought I overreacted. And then when he heard me on the phone, I think he was shocked. But it was something that I just couldn't help.

I: So someone then called you? (Yes.) And then is when...

S: I exploded (laughter).

I: Okay. Can you tell me what that was like for you? What happened?

S: I seemed to go on and on and I, you know, should have finished it off in a few sentences and let it go, but there was just something inside of me that I had to get rid of ...I just ...it was as if I didn't get ...if I didn't get rid of it then it would just destroy me, you know.

I: Very destructive kind of (Yes.) feeling inside. (Uh-huh) Like you were being destroyed by it. (Yes.) And so, when this person called, you were able to talk about
it.

S: (Laughter) I certainly was. I was...like I say, I wasn't as polite as I should ...as they say a lady should be, but I was no longer a lady. I was furious (laughter).

I: Can you describe that in more detail?

S: I don't think I understand quite what you're driving at.

I: I'm just wondering ...did you yell? Did you curse?

S: I didn't curse. I talked loud and I repeated myself at great
length.

I: Was there this feeling of being out of control?

S: Yes, there definitely was. And that's not a good feeling. I'm a control freak as far as I am concerned, not other people, but I like to feel that I am in control of the situation. And of course, you're not always...it's not always possible, but as much as possible I want to be in control of my reactions and my feelings and...like I hate to have a general anesthetic because I feel here I'm going to be out of it. I don't know what's going to happen to me. What will they do to me?

I: So control seems to be related to...or being out of control seems to be related to this feeling of overwhelming anger. (Uh-huh) And once it was over, once you had once talked to this person, what was that like?

S: Well, I felt better. I was a little ashamed that I had lost my temper so thoroughly, but...and later, not too long ago, the woman who was in charge of volunteers at that time was on the same elevator I was and she said, "Oh, I guess you're going to see your little heart patients today, aren't you?" And I said, "Yes, I'm going to see my little heart patient (laughter)" and I just smiled and got off of there and I thought "You're not going to get me this time, lady."

I: What was your feeling at that time?

S: Well, I thought she made an ass of herself, frankly.

I: So there was some anger there.

S: A little bit, but I forgot it as soon as I got off the elevator because I thought, "Well, I'm in control here, lady. (laughter) You're not getting to me."

I: So this was...that was a very mild...

S: Oh, very mild, it was ...I was...like I say, I was proud of myself that I didn't say anything to her. I just went on about my business. I thought, "Well, you certainly have diminished yourself. You haven't done anything to hurt me."

I: So that was not one (No.) where you allowed it to build.

S: No. No, once I get in...in the hospital and I start dealing with those patients, there's no world anywhere else. I'm right there and that's it and that's the only thing I'm concerned with. And I just...I don't pay any attention to the time or anything else. I'm just...I'm there for the people that I'm trying to help.

I: So it was easy to put that incident (Oh, sure.) behind you. You mentioned at the very beginning of our talking that after surgery you learned not to let yourself get too worked up about something. Those weren't your words...

S: Small things because, like my neighbor says...he's had heart surgery, too. He said, "Don't sweat the small stuff." And I think that's a perfect, you know, way to put it. Now, my husband can get upset about little things and I just don't even...you know, I think, "Well, what the heck, I don't care." But if it's something where I feel that there's an injustice or...and you see that all the time ... and where there's bigotry and all of the sort of things that diminish other people ... now, that upsets me. And like the situation in Somalia now, I feel that we should

get out of there as fast as we can. We have gone through war after war after war in my life. It has not...the only one that we were in any danger was World War II, and we were fighting for our lives. The rest of them have been over oil or pride or something like that. And someone says they are ashamed to cut and run from this situation. Well, we have no...we went there to feed those people. We did not go there to free them of a dictator. And I just...one of my dearest friends lost his son in Vietnam and I just feel it so strongly when I think of someone losing a child because I know that the whole family is just devastated by it. And for what?

I: Does that make you angry when you think about the injustice or the concern you have about people who might be over there in Somalia? (Yes.) It makes you angry? What's that like for you?

S: Well, I think it's a feeling of helplessness because I know that I have nothing...there's nothing I can do. There are people who are in charge, and for various reasons or another, they have some interest in it. And I don't...you know, and when you don't feel that you have any power, it is upsetting.

I: So it makes you feel helpless and upset like there's nothing you can do. (Uh-huh) Is that something that you think about a lot?

S: (Laughter) When I'm silly enough to sit down and watch the news or read the newspaper. I really should not...you know, if something upsets me that much and I know I can't do anything about it, I should just cut it and run, I mean, walk away from it. There are just situations where you can't do anything and you might as well just accept that fact and hope for the best. But other than that, I don't know what you can do.

I: But there are times that world issues or issues of injustice bother you.

S: Yes, definitely.

I: Can you think of a time in particular, say, pretty recently when something like that has happened?

S: Well, the Women's Club in (place) ... it's supposed to be the Women's Club of (place) ... and they get special privileges and prices to use the Civic Center and all of this. Now, it has always been strictly white. Now, this started 30 years ago, and they decided to have a black ball system where if, you know, if they didn't want somebody, they wouldn't have them in, which meant it was confined to white Anglo Saxons. And I said, "You know, this is the Women's Club of (place). It is not the White Women's Club of (place)." So I resigned. And now recently, or a few years ago, the issue came up again. And I wasn't a member of the club but a lot of my friends were. And I wouldn't belong to any organization like that

anyway, a bunch of little old ladies that don't have anything better to do. You know, they play bridge and they make crafts and they do all that. Well, that's all right with me if it suits them, but it doesn't suit me (laughter). But somehow I got drawn into the conversation somewhere and I reiterated that I just felt that anyone who wanted to be a member...and I don't know why anybody would want to be a member...well, they tried to get two token blacks, you know. Well one of them, during the fight she said, "I don't want any part of this." And the other one, Ithink,joined..temporarily. But it's such a bunch of old biddies anyway, you know, that (laughter) don't have anything better to do, that I...I don't know what the situation is now. I think this...that organization just by nature will become extinct because there are nothing but old women in it now and in this day and age young women go to work. They don't belong to things like that. So, you know, it resolved itself, but in the meantime, it has taken a bit of time.

I: Was there ever an incident in which you felt particularly angry or has this been sort of a constant irritation?

S: It's not a constant irritation.

I: Was there an incident or some time when you really felt angry?

S: I guess when someone stood up and said, "Well, we'll just, you know, have this black ball system and that way we can keep it the way we want it." But I knew that nothing I said or did would make any difference, so I resigned very quietly and that was the end of it. And I didn't waste any more time thinking about it.

I: Do you remember what it was like for you being in that meeting and hearing that? What were you aware of at the time?

S: Well, I was aware that I was with a group of people who just didn't think the way I thought and I didn't want any part of it.

I: How did you know you were angry then?

S: Well, I just knew I wanted out.

I: I see. So there was a desire to leave.

S: Just leave it, because if you can't change it, you know, you accept it and you go on. Now, some things are worth getting in an uproar about and fighting for ... that you truly believe in, but some things are not. And you just have to try to have sense enough to know which is which.

I: Have there ever been times when there was something that you thought was worth fighting for?

S: Yes. During World War II, as soon as I was old enough, I decided that I would join the Navy because I wanted to be in the hospital corps. Well, all of the other girls were either getting married or going on to college or they'd say, "Well, my mother won't let me." Well, I felt, you know, I was ... I was an adult. My mother didn't have any right...you know, they were afraid to really was what it amounted to. And a lot of the boys would say, "Well, nice girls don't do that." And I thought, "What do you know about what nice girls do? And I thought, "You know, this is really ridiculous. I'm going to do it. I've made up my mind, and anybody that doesn't like it, that's just tough." And I met (name), I guess the thing that attracted me most to him was that he was home on leave from the Navy and we were both over at the (place) Club. Our parents were both faculty members, our fathers, when we were growing up, but he was five years older than I was and I didn't know him. But he was over there and back then he had curly hair and a round face, you know, he was cute as a bug. And so I told my mother, I said, "I'm not leaving here until I meet this young man." And so she introduced us. And he asked me, you know, several questions. I told him I was waiting to go into the Navy. And he said, "Oh, I think that's fine. I hope, you know, I really hope you enjoy your experience." I thought (laughter), "Boy, there's one in a million right there." And I said I wasn't interested in other men during the time we were separated. And we just wrote each other kind of very, you know, newsy letters. We didn't ... there wasn't any romance involved at all, because I was interested in someone else at the time. I thought ...and then when I came home I thought well, "If I don't ...if I was in the Navy two years and didn't find anybody I wanted to marry, I guess I'm hopeless (laughter)."

I: You liked his attitude too, didn't you (laughter)?

S: I liked his attitude and we just, you know, hit it off perfectly and that was it. And he's always supported me in anything that I wanted to do. And I see men that don't support their wives in their desires to do certain things and I think "Oh, my gosh. You and I would last a week, buster." I'm pretty independent, I guess.

I: So something about the situation when you were considering going into the Navy, something about the helplessness in other women and the attitude of the men, sort of an intolerant attitude or negative attitude toward women who would do something like that ...something about that made you angry.

S: It made...it didn't really make me angry. I thought, "Well, you know, you're just really kind of naive. If you want to believe that you're free to believe it, but I believe something else, so you're not bothering me."

I: You mentioned, I believe on the phone, that there were a couple times that people had promised something and they hadn't come through. There were a couple things that came to mind. Was there another incident?

S: Well, there was one thing. My mother was diagnosed with Hodgkin's disease when she was 49 years old and she was a patient, a research patient out here. And she lived for eleven years. And I was the only daughter here, so...and I had three young children and it was largely...I guess I took it on myself to, you know, be as much help as I could ...be a good daughter. And my father completely refused to accept the reality of the situation. And of course, I got...I became terribly...I became so exhausted from all of this that I became deeply depressed. And so my family doctor sent me to a psychiatrist out here and I saw him two times. And he said, "Well, if you don't quit going to see your mother every single day, you are either going to land in the hospital physically or emotionally ...dead." So ... and ... fortunately shortly after that she died and I didn't have to make that decision, because if I had been at home I would have been under just as much stress as I would have if I'd gone. And she saved all of the things, bad things to tell me, you know, that went on in the hospital, and , of course, when you're sick you imagine a lot of things, too, that you think people are doing. And when she died he had not made any arrangements. He had not bought a funeral plot or anything. It was on the 2nd of July. Well, on the 4th they don't do anything. That night (name) had to go out and make all of the arrangements, and I had my father promise me that he would not have an open casket. Well, he went against his promise and had an open casket, and so I refused to go into the room where we were meeting, where, you know, friends were coming. And I said, you know, he promised me and then he...I thought he owed it to me to stick to his promise because it didn't serve any purpose. To me, that is the most ...I don't know. I guess it's a southern custom, but to me an open casket is just the most revolting thing I can think of. How can you subject some poor dead soul there to people staring at them, you know, and saying how good they look. Well, they wouldn't have died if they (laughter). My God. So I was pretty upset with him. Of course, my father and I never got along too well anyway.

I: What was it like at that particular time for you? Do you remember what it was like to be so upset with him?

S: Well, I just felt betrayed. But I was in very deep mourning and I just...I guess I just didn't pay too much attention. But at the time I refused to go into the room where the casket and the body was, because I couldn't do it. You know what they do. They fill your face with paraffin and they have a hairdresser and a beautician and all this other stuff. Well my husband and I have both decided that we're going to be cremated and there is going to be as little folderol as possible. We just don't believe in all that garbage. But anyway it was, you know, I guess all of these things happen to people and you get over it, but...and I find it...you know, when

something is past and done with and resolved, I find it painful to go back over it and talk about it. I don't...you know, I just think that the dead should bury their dead and let it alone, that once it's been resolved once, you know, why...why waste any energy on it.

I: So is it difficult for you to go back and think about that at this time?

S: Not at this time. It's been a long enough that it's alright.

I: And did I understand you to say that the way you expressed your anger was to refuse to go into the room?

S: That's right.

I: Did you express it any other way at that time?

S: No, I don't think so. But I'm sure my father got the message.

I: But not because you told him.

S: I think I said, "You promised me that he would not do this. That's all I said."

I: But this was not an explosive kind (No, no.) A very different kind of expression of anger.

S: I was in ... too much in mourning.

I: You were very depressed.

S: Yes, extremely depressed.

I: And exhausted.

S: I think the exhaustion brought on the depression.

I: You probably didn't have much energy.

S: No, I didn't. I had three small children to care for. And I actually reached the point where I was contemplating suicide. And it seemed like such an easy thing to do and I thought, "Well, my children will be fine. My husband will be okay." You know, totally irrational. It just didn't make any sense at all.

I: You were depressed.

S: I really was. I was...if my family physician hadn't been so good, I hate to think what, you know, could have happened. But he picked up on it and he realized that I needed more than he could do. But I only saw the man twice. I wish I could remember...oh, (name) was his name. His family has an orphanage up farther East (place). And he was nicest,loveliest man. In general I don't have too much use for (laughter) psychiatrists. I think they're a bunch of nuts themselves. But he was different, and there are others who are different. But... and my daughter is working with them all the time (laughter). They all know who the good ones are and who the nuts...you know, some of them are nuttier than the patients. They wouldn't have gone into it in the first place.

I: Okay. Are there other incidents or examples of anger? You mentioned that after the surgery you learned not to sweat the little stuff. (Uh-huh) Prior to the surgery was there a difference in the way you looked at things or ...

S: I think so. You're more -- you don't have as broad a view of things, I think, as you do afterwards. You're more drawn into yourself, I think, instead of out into other people and the world.

I: Was your anger different before and after had the surgery? I guess that's what I'm wondering.

S: I really...I can't think of an incident in recent years where I've really been angry. I had a high...my boiling point is very high, but once I reach it (laughter), you know, it's pretty apt to be explosive, but very few times have I really been angry. I can be, you know, irritated with something and think "Oh, why did you do that stupid thing?" or "Why did you say that to me?" or whatever, you know, but not to the extent that I let it really bother me because I figure they're the one that's out of control.

I: That control comes up again.

S: Uh-huh. That's supposed to be a bad (laughter) ... if what I read is correct ... they talk about people who are control freaks and that sort of thing. I pretty much save that for myself to keep myself in control and if I can keep myself in control, well, I think in general the ones around me can. Now, once in a while I get ... recently I was upset with a friend of mine. (laughter) I don't know whether she's a friend or not. She's always finding some way to give me a hard time, but I really don't pay much attention to her. But uh she's been a widow for 5 or 6 year and she hasn't remarried and I can see why and I told (name) if I died before he did and he married her, I'd rise up and smite him (laughter). She can be so hateful and I had serious eye problems and I was told that within five to seven years I would probably be blind. And she's...because of macular degeneration...and I mentioned it to the people in this investment club that I...we've been together for 20 years. We just

have fun, but we have made a little bit of money. And I said something and she said, "Oh, you won't be blind. Just your...you'll still have your peripheral vision." Well, she doesn't know that I have glaucoma, too, and that I'm losing some of that. No...you know, no "I'm sorry" or anything like that. And I've encountered that...I haven't told many people, but the few that I have, they all seem to try to avoid that ... any comment. I think that's because people who have been like I have, they felt well, you know, I'd almost rather be dead than to be blind. And the one person who said to me, "I'm sorry," was this wonderful little cardiologist that I have. I just adore the man. He's such a gentleman, he's kind, wonderful person. And I don't worship doctors by any means. Most of them, you can take as far as I'm concerned (laughter), although I've had a good family physician. But I just thought that was so thoughtless on her part, you know. And so unkind, really. But I didn't say anything...well, that was true to form for her, so I just let her go on (laughter).

I: When you think back on that, what are you aware of when you think about the anger at that point when she didn't seem to understand or didn't seem to appreciate...

S: I think she appreciated what it meant. Her son is a...he's an ophthalmologist. But she just ... since it was me, it didn't bother her, you know.

I: Do you remember what you were aware of at that time?

S: Well, I thought that she was terribly insensitive and I really didn't like what she said, but I just let it pass. I thought, "You know, she's the type of person that you don't try to reason with anyway." She knows it all so just let her know it all (laughter).

I: Was it similar to the incident in the elevator where you didn't allow...

S: I just wouldn't let it upset me because I was upset enough about the whole situation as it was. I didn't need anything from
her.

I: Is that the way anger is for you now a lot of the time? (Yes.) Sort of an awareness of irritation perhaps, or...

S: Probably irritated that people are either so uncaring or thoughtless sometimes ... or even malicious. You know, you can tell when people are being that way. And I'm not paranoid. I don't go around looking for insults, because if you do, you can find them, heaven knows.

I: So there's a real effort not to allow things to bother you now.

S: That's right, because I have to take care of myself. And I think I owe it to myself and to the people who I love.

I: Are there any other incidents that come to mind that would help me to understand what anger has been like for you over your lifetime?

S: Well, I was the oldest of three girls and my mother was always in poor health, or at least said she was. I was never really sure. I think a lot of...I think she had a lot of emotional problems. And so, from the very earliest that I can remember, it was up to me to get all of us children up and fed and ready for school and just, you know, so much responsibility at such an early age. I felt that I never really had a childhood. I think I probably have more now (laughter) than I did then, you know.

I: Does that make you angry to think about that?

S: Well, I don't know if it makes me angry as much as it makes me sad and maybe feel a little ...a little deprived, I guess. But we take what life hands us. I'm not one that believes... some of these people that say, oh, well, the Lord doesn't give you any more than you can handle. Well, I think that is just a bunch of bologna, I mean, I don't think that has anything to do with it, just like my heart problem. I was a statistic. I wasn't singled out for doing something wrong or anything like that. I was just one of those that it happened to. So I just can't, you know, kiss things off by saying "Oh, it's the Lord's will" and all that. That's just not my way of thinking.

I: Does that irritate you to hear people say that?

S: Well, I think they're kidding themselves, but you know, there again, that's their privilege. I have allergies. I keep blowing my nose (laughter).

I: Okay. When I asked you about if there were any other incidents that would help me understand your anger, you did talk about what it was like when you were younger and all the responsibility. Were there times then that you remember as feeling angry?

S: I think I felt more overwhelmed than angry. And at an early age, you know, I did most of the cooking and that sort of thing and a lot of the housework and...not that anything like that's going to kill you, but I do feel that possibly I was robbed of my childhood.

I: Were you able to express that or is that something you feel when you look back?

S: That's something I feel when I look back. I didn't ...I just thought, you know, I guess I thought that's the way things were.

I: Would you describe yourself as having been angry at the time about it or were you more overwhelmed?

S: I would say overwhelmed by being expected to do so much at a young age. You know, when I saw people around me, those things were not required of them. Of course, I saw people that were worse off than I was in many ways, so, you know, it's like one of these little ladies I have in the hospital, bless her heart. She's on Social Security and she had the munificent amount of $325 a month to live on. She said, "You know, sometimes I feel real bad about that, but" she said, "I looked around and I see people worse off than I am." And I thought, you know, "I really can't believe this." You're really humbled by people like that. Their acceptance of things like that ... but ... and I guess the most -- it has nothing to do with anger, but the most emotional experience I ever had with a patient was with a black man who was, oh, I guess he was about 60 and he was...he had had macular degeneration and he was blind and in his life he had raised about four boys and educated them. He wasn't...he was an intelligent man, but he was not an educated man. And I was talking to him and, you know, trying to see how he felt about things and I said, "When we come to see you, we bring you a rose to remind you of our concern and care." And that dear man broke into tears and just sobbed. Here I was (laughter), you know, with tears flowing down my face and down his too, and I was just totally overwhelmed with him. But I got control of myself and then we started talking again. I said, "Well, would you like me to read to you the literature that I have?" So I sat down and I read to him. And we talked some more and everything and I felt that I left him feeling, you know, pretty good. The poor man's chances were ... before surgery they just said they didn't expect him to come out of it, but he did somehow. And he bounced back in a hurry, although his heart disease was very severe and I doubt that he's still alive. But I always remember him, to think that somebody had gone through life and nobody had ever given them a rose, you know, that was just heartbreaking.

I: That was an overwhelming experience for you. (Uh-huh) You mentioned that you and your father didn't get along very well. Was there anger in that relationship?

S: Yes, I was very angry with him because he never would...he never would say, give me a compliment without putting a barb at the end of it. And it just...and I would be in tears. And (name) finally said, you know, "I really wish you wouldn't be around your father any more. He really upsets you too much." And I shouldn't have let him get through to me, but I was one of these that I thought well, you know, you're supposed...they say honor thy father and thy mother. Well, there again, that's a great big fallacy. If they deserve your honor, you give it, but if they don't, you really, you don't owe it to them.

I: So were there times when you and your father had angry interchanges?

S: Not many, because he always seemed to have the upper hand and he delighted in upsetting me. That was his, I think, main joy in life. and I should have, you know, come to that realization much sooner than I did. But...so I guess I have to blame myself as much as him.

I: Can you think of a time when you were very angry or was it more that he upset you?

S: I was more hurt than anything. And in many cases when something upsets me, I'm more hurt than angry that people would be so insensitive and in some cases malicious, you know.

I: And is that the way it felt, that he was malicious?

S: I felt so.

I: But something about that seems to carry some element of anger.

S: Yes. I didn't shed a single tear when he died. That's terrible to say, but I did not.

I: It sounds like you were very angry with him.

S: I just thought, well ... that's, you know, well, he was 89 years old, for gosh sakes (laughter). It was time to go.

I: Did he stay angry with you a lot? Was that the way it was?

S: I don't think so. I think he just enjoyed making me upset.

I: I see.

S: I think his father was that way. My sister says that our grandfather was that way. I never felt that way about our grandfather because I think maybe he singled me out as maybe his favorite or something. And I obviously was not my father's favorite. He said so to other people, you know. And here I was the one that had done everything for my mother and when he married again, I was...the only reason I was against it was because she was a horrible woman. But I did everything, you know, arranged the wedding and the reception and, I mean, you know, the whole bit. And well, no thanks, no nothing, you know, and nothing but a hard time from her too, so I (laughter) thought "I'll just leave those two old ..." They were meant for each other (laughter).

I: Did you feel angry with her?

S: Not...I wouldn't let...I wouldn't let myself be bothered too much by somebody like her.

I: I see. You just didn't like her. You didn't like your dad much, it sounds like.

S: No. And I don't feel guilty in saying that (laughter). I'm sure there were times when my children have hated me, you know. I haven't deliberately done anything, but you know, we all grow up and we imagine, I think, a lot of times as children ... slights. I remember my daughter telling me sometimes she thought that she was adopted and I just laughed. I could not believe that she said that. But she was between two boys. There's an older brother who is four years older and a younger brother who is three years younger. And they're thick as thieves. They love each other, but they can't stand their big brother because when I wasn't looking he picked on them, you know. I don't know, families are strange things. And I don't think mine is the only one. I look around and I see people, you know. All families are -- what is it that they say ...dysfunctional families. I don't think there is anything as a purely functional family, do you?

I: There are problems in every family. No question about that.

S: Look at all these personalities, all of them different. There's bound to be problems. I have fewer problems with my husband that any human being I've ever known.

I: Is he easy to get along with?

S: Oh, yes, he's helpful and thoughtful and he's a loving sort of person. He's secure within himself and never had great desires to be upper management or anything like that.

I: All right. Are there any other things that you feel like you need to tell me to help me understand your anger? It sounds to me at this point like ... you said you have a high boiling point. You don't get really angry often. There was one incident when you really became explosive and at that time talked a lot, felt out of control. Your tendency, especially now, is if things irritate you, you don't let it bother you. You think it's not worth getting upset about.

S: It's not worth getting upset about. Maybe I'm just too soon old and too late smart (laughter).

I: It sounds like...there was something about the anger that you felt when it got...it really grabbed hold of you that was destructive to you. That was something that came through that one incident. The others don't seem to have that quality. (Huh-uh) There's a tendency to want to withdraw, to move away from it.

S: Well, if staying in it just causes more tension and more problems, why...you know, why bother with it. You know, just walk off and leave it. You don't walk off and leave your responsibilities and that sort of thing, but if somebody makes a snide remark to you, the best thing to do is to just to pass it off because that's their problem. It's not mine.

I: Does that sound like it pretty much summarizes or did I leave out anything that you feel was important?

S: No, I think that's it.

I: I surely do appreciate your willingness to sit down with me.

S: And spill my guts.

I: Yes.

APPENDIX B-2

SUMMARY OF TRANSCRIBED INTERVIEW OF PATIENT WITH CARDIOVASCULAR DISEASE

The participant is a 69 year old married white female who was diagnosed with a prolapsed mitrovalve, suffered congestive heart failure, and underwent open heart surgery to replace the valve in 1976. She reported no family history of coronary disease and no other major illnesses or chronic health problems. She named her husband as her primary source of emotional support. She is retired and is actively involved in volunteer service which provides educational and peer support to cardiovascular patients. The prominent themes in her description of anger are "Feeling Betrayed," "Struggling To Maintain Composure," "Exploding," "Walking Away From It," "Letting It Pass," "The Earliest That I Can Remember," and "Tears."

Our interview may best be summarized as a progressive flow. She began by discussing her anger at learning that her duties as a volunteer at the hospital had been changed. She had agreed to be a visitor with the stipulation that she would only visit heart patients. When she was informed that she would no longer see only heart patients, but would instead be a "floater," she became very angry. She felt betrayed but said nothing about it at the time. Fearing that she would lose control and explode, she struggled to keep her composure and to complete her work. The more she thought about it, the angrier she became. When someone called her at home to explain the situation, she exploded, talking "at great length" in a loud

voice. She felt totally "consumed" and "out of control," as if there were something destructive inside that she had to "get rid of." Once she had expressed her anger, she felt better but was a little ashamed of having lost her temper. She decided to resign and was responsible for establishing a new program at a hospital in her area.

She carefully evaluates whether an issue is "worth fighting for," and she "walks away from it" if she feels that she cannot change the situation. There have been times when she has quietly taken a stand and has resigned rather than participating in activities of which she disapproved. She finds injustice and bigotry intolerable, and she resigned from her local Women's Club in response to the suggestion that a black ball system be used to prevent black women from joining.

She is careful not to let unimportant things bother her. When she recently saw the woman responsible for reassigning her duties at the hospital, she had some angry thoughts but was polite. When a friend was insensitive and minimized the seriousness of her eye condition, she felt irritated but did not let it upset her.

Her description of "The Earliest I Can Remember" revealed the impact of her mother's chronic illness on her. As a young child, she felt overwhelmed by the responsibilities of housework, cooking, and caring for two younger sisters. Although she recognizes that she was deprived of a normal childhood, she prefers to think of those who are worse off than she was. She was especially moved by her experiences with two heart patients she visited during her volunteer work at the hospital. She felt "humbled" as she remembered a woman who expressed gratitude for not being "worse off" in spite of living on a very small Social Security check.

She remembered her "most emotional experience" with a patient as having occurred when she presented him with a rose as a symbol of concern and care and he "broke into tears and just sobbed." This experience overwhelmed her and she began to cry and sat with "tears flowing down her face" until she could regain control and begin to speak again. She finds it "heartbreaking" to think that he had spent his life caring for others and that no one had ever given him a rose.

Not only has she shed tears over someone else's misfortune, but she also shed tears of hurt and anger because of her father's criticism of her. He always seemed to "have the upper hand" and to take delight in upsetting her, and he never gave her a compliment without "without putting a barb at the end of it." She spoke of intense anger toward him many years ago when he betrayed her trust by breaking an important promise. She was so hurt and angry at his insensitive and malicious behavior that she did not "shed a single tear" when he died.

In summary, she becomes angry primarily when others betray her trust or are insensitive. She has not been really angry many times, but once her "boiling point" has been reached, she is likely to be explosive. She is careful to consider which things cannot be changed and which are worth fighting for. She becomes angry when she thinks of bigotry, injustice, and wars which are based on economics or pride. When she feels that she cannot do anything about a situation, she chooses to try to acknowledge her sense of helplessness, accept the situation, "walk away from it," and "hope for the best," instead of getting upset.

APPENDIX B-3

VERBATIM INTERVIEW TRANSCRIPT OF PATIENT WITH BREAST CANCER

I: Please think of some times when you have been angry and tell me about one or two of those times in as much detail as possible.

S: I found in trying to think about that, that I had a difficult time coming up with things. And I have known for some time, because in the aftermath of my cancer I did have therapy and that I tend to not express my emotions and I tend to forget because I like peace. So, and in fact I generally try to understand why something has made me angry. Anyway, the one thing that came to mind in trying to think of something that I can describe is when I have been angry was about six months after I had cancer. And I had heard some way...oh, I know...of course, I had read the Simonton book. And I had heard that they had this clinic that I wanted to go to. I was so impressed with their approach. I was in...I was taking...I had a year of chemotherapy because the cancer had spread to my lymph nodes. So they want your spouse or any other...some important person in your life to come with you because they realize the effects, whether you're able to continue with suggestions and changes that you make while you...so I broached the subject to my husband and...oh, he was wonderful through my cancer. But this, you know, he...this was something a little different. And you can imagine, that was a number of years ago. It's much more acceptable now, but at that time it really wasn't and...or at least in this area. Or at least not in...I had realized that it was something a little unusual for me to be doing and so he had a hard time accepting the idea that we would be going out to (place) and this psychological program. And so he finally came up with the idea and said, "Why don't we just go to (place) shopping instead." (laughter) But, you know, the emotional state I was in then, it hurt me terribly. And I was angry and I cried because I felt that my life was involved and that going to (place) shopping was not a suitable alternative to going to (place) to the (name) Clinic.

I: Can you remember...it sounds like it has been a while, 10 or 11 years. Can you remember what it was like at the moment when you asked him if he would be willing to do that?

S: No, I really can't. As I say, I try, tend to bury things and I forget them. I don't think that this particular incident that I'm describing was the first time that I had mentioned it because I think I kept bringing it up over a period of time.

I: You mentioned you cried.

S: Uh-huh. That's the only time I remember crying about it. Somehow the idea, the mention of (place) and shopping was sort of the straw that broke the camel's back about it. And we had talked about it before. And it was actually another member of the family that...who...his brother, in fact, to finally say, "Why don't you go on with her." And somehow I think that maybe having somebody else think that well, maybe it wasn't such a wild thing to do. And somehow I think from that time on he became more aware, but it was a very gradual process. But I can understand it, you see, because I remember when I first thought about going to the LeShan seminars, I kept that application for a year before I had the courage to send it in and maybe suggest that I might be going to something like that. I just didn't know anybody else who did those things. And that's...that experience with trying to get to the (name) Clinic, and yet, you know, once he made up his mind, he went and cooperated and I think he got as much or almost more out of it than I did.

I: You said it is hard for you to remember what it was like to be angry but that does stand out as having been an angry situation.

S: That and...it was funny that the only other thing that I've been able to bring up that I can remember...I know I've been angry but I can't remember the particular circumstances. But there was another situation years earlier, had nothing to do with my cancer. But in a way it was a similar situation, somewhat similar, in that I had been for a routine physical and the doctor thought I had a mass in my stomach or around my uterus and suggested that I have exploratory surgery. And I had two little children and I was worried and...but (name) thought that unless he was surer than he was...and looking back on it, I think (name) was worried about my going into unnecessary surgery. But he suggested that maybe I ought to wait and see what developed. But there again, I was hurt and angry because I felt that this was... and I got, I remember I got extremely angry at that time when he suggested I not have the surgery.

I: Are you able to remember what that was like for you to be extremely angry?

S: In a way, yes, because I get very upset if I get extremely angry and that may be one reason that I hold it. So, because it never seems to help when you get extremely angry. I end up being even more upset than I was before.

I: Can you remember that particular incident? It seems difficult for you to consider it and think about it, but when you were extremely angry in that situation, what was like for you? What was going on?

S: I think one of the problems is that I have such a hard time articulating what it is that is bothering me at the time. And my husband is so articulate. He's so...you know, he's really an extremely understanding person, but when we do have differences of opinion...and it's not just with him...I find that true with anyone. I

find it's been difficult for me to express what it is. And I tend to go blank. And I think that may be one reason that I end up more upset than if I just held it in and tried to understand the situation more.

I: So sometimes you feel you go blank when there is a disagreement? Can you think of a time perhaps recently when that occurred?

S: Not recently, because more and more I try to look at what's happening and try to understand...I think I've always tried to do that but I do it some ways more now. I don't, you know, don't get my feelings hurt as easily now as I used to. I sort of take a look at the situation and realize that someone else...I think most of my anger has usually been from hurt feelings or fear. I think the two seem related. Primarily hurt feelings.

I: Before we leave the second incident...because I may come back and ask you to talk more about the hurt feelings...the second incident of the disagreement with your husband, you said you got really upset. Can you say more about that?

S: Well, I remember we were already ready for bed. It came up at bedtime. Somehow the argument came up at bedtime. And I was so angry that I ran out of the room and ran downstairs. But he realized how much he had upset me and so he came down after me.

I: So there was a desire to run away? (Uh-huh) In fact, you did run away from him.

S: My tendency through the years whenever I would get angry was just to clam up, you know, to get out of the situation or just to quit. And I can remember...oh, I can't remember what the causes were...of being so angry that I just wouldn't want to talk to the person I was angry with for a long time.

I: How do you know when you're angry?

S: Well, except that I'm terribly...I feel so terrible inside.

I: Can you say any more about that?

S: I think I would sort of describe it as a sinking, tight feeling in my chest. It's a feeling of complete frustration. Sometimes I'll cry, not always. I know I cried in that first incident I told you about. I cried...I think I did in the one years ago in connection with the surgery. It's a kind of helpless feeling.

I: You mentioned that at times others seem more articulate. You want to clam up. Can you say any more about that?

S: It's almost as if I just close down when I get angry and I can't...I can't argue. I just...I just become completely inarticulate.

I: And that blankness, you mentioned you sort of go blank and feel helpless.

S: When someone else says something or makes a point, I can't think of anything to say, so often. And I guess it's a strategy I've worked out through the years is just to retreat.

I: You say there's a strategy, a strategy for what?

S: For coping, I guess. I guess in essence I realize that it's not the end of the world, whatever it is, and most of the incidents I'm thinking of, you know, not going to make or break things, and I've never felt that things were completely out of my control. Fortunately, I think I'm happy. The family I had when I was growing up and my husband and family I have had later have certainly not dominated me completely. I've always had a certain amount of freedom. It's just...I guess essentially I want too much to please people. Of course, I've learned, since having cancer, that tends to be a cancer personality, a trait, and I certainly feel that way. I think I told you at the beginning that I hate controversy and I just go out of my way to avoid it and to keep things peaceful in the family.

I: So, for you anger would be displeasing for someone else; is that what you're saying?

S: I guess so. Well, it's a...it's a manifestation of an unpleasant situation...disagreement, discord.

I: So keeping the peace is all important.

S: I've learned, you know, since I've had cancer, to express my feelings a little more, but it's hard to overcome a lifetime of wanting to keep peace. Plus the fact that I really have discovered that it works for me better to try to analyze the situation and try to understand it and understand where the other person is coming from, because I tried in the aftermath of my cancer in having some therapy to express my anger and I found that really didn't help at all. And I would consciously try to express it. And all I did was to end up shaking and just feeling, you know, drained instead of empowered.

I: So something about getting in touch with anger would make you feel drained instead of empowering you.

S: Uh-huh. I read things about going ahead and expressing your feelings and expressing your anger. It doesn't help. Maybe I don't express it in the right way or what. I don't know what it is. It just doesn't help.

I: Can you think of a time when you tried to do that?

S: Yes. Oh, I can't think of specific times, but I know that I have in just my little everyday arguments that I might have at home. But I end up thinking "Why did I get angry over that? It wasn't important enough for all this unpleasantness."

I: Uh-huh. It sounds like it's something you've tried to work on.

S: Oh, I have.

I: And somehow it's not worth it.

S: Huh-uh. I think that it works much...I'm pretty much convinced that, at least for me, it works better to try to anticipate situations to a certain extent and avoid and to understand them and just not let things get to the point where there is an explosion.

I: So you try to anticipate. I've heard you mention situations and trying to analyze and anticipate. Can you say more about what you mean by that?

S: Well, for instance, our son and his family were coming to visit and we began, my husband and I began making some plans. And I found out through my daughter that that irritated him because he didn't want anyone to make plans. He wanted to be able to plan his own visit. And I didn't realize that. So now I am very, very careful not to make any plans and if there's something...it's something I feel has to be anticipated, I will call him and ask him whether he would like for us to do something. But never assuming anything...in other words, why get into that if that bothers him. It doesn't make that much difference to me. So I try to do things like that.

I: You mentioned avoiding conflict and that's what it sounds like. (Uh-huh) You're avoiding unpleasant situations. Can you think of other ways that you did that in your life, other ways that you avoid an angry situation?

S: Well, of course, I guess this is typical of children, but my daughter also is very sensitive to being told what to do or anything so I try very hard never to make suggestions or anything to do things to keep things as calm there as possible.

I: What happens if you do try to tell her what to do?

S: It makes her angry.

I: And you mentioned that your son who would get irritated.

S: He lives out of town and if he were coming into town to visit it would irritate him if we made extensive plans. I didn't know that. She had to tell me that.

I: So it sounds like a part of the relationship with your two children has been to be accommodating (uh-huh), to avoid their anger. (Uh-huh) Is that a part of what I'm hearing?

S: I think so.

I: What is it like for you when they get angry? Can you think of a time when one of them has been angry with you?

S: I really can't. I'm sure they have. But it's...when I was in therapy I was told that somehow in our family we had seemed to avoid, when I was growing up, and then...and my immediate family still does this, calling a spade a spade and saying, you know, just what we were thinking and how we felt. We sort of skirted around everything to keep everything all right on the surface.

I: This was in your family of origin?

S: Uh-huh. Whereas, my husband's family doesn't do that at all. And in fact, when we were first married it was quite a shock to me to see the way they would confront each other about things. And he and his brother sometimes would get into violent arguments and it frightened me.

I: So they would be angry.

S: With each other.

I: With each other. And that was frightening for you.

I: Can you say more about that?

S: I used to go out of the room, even though I wasn't even involved.

I: So there is this need to withdraw from anger.

S: And they don't do...I mean, they very seldom get...you know, and we all I guess mellow to a certain extent with age. They don't argue much anymore, but when they were young they did and I used to be afraid it would break into a fight.

I: That was very disturbing.

S: Uh-huh, because I had never...I had come up in such a different, completely different atmosphere. I say because...I don't know what. I think I...for whatever reason, I had come up in a completely different environment. And I often wish that maybe we had been more frank with each other in my own family and that way perhaps it wouldn't have been so difficult for me.

I: Was everyone in your family not expressive...

S: I didn't realize that it was...I just...my father was a very kind, patient, compassionate person, and he died very young, but he and Mother had a very happy marriage, I thought, as afar as he was concerned, it seemed that she adored him. And ...but I think she was the typical...she married when she was very young and he was about 10 or 12 years older than she was. I always felt that she went from a strong father to a strong husband. But she seemed to like it that way. She wanted him to make her decisions. And so, yes, I guess it was...I had just never...I never thought we were withholding anything. It was just the way our family was.

I: I'm gathering from what you've said that there was not a lot of conflict in the family.

S: No. My brother and sister were a good deal younger than I was, so...now, they were very close in age to each other and they used to...well, I don't remember their really fighting so much as that they were just very lively (laugh) and just uh...but there was no conflict for me particularly with them because they were so much younger. They were almost like my children, seven and nine years' difference. And my mother was a very sweet person, just completely devoted to the family. So, I don't know. I just guess I wasn't...sometimes I think maybe it's good to learn how to...how to fight and argue when you're growing up (laughter).

I: But you feel like you didn't learn to do that. That's what it sounds like. (Uh-huh) So when you ever saw it later on, it was alarming. (Uh-huh) It was disturbing and you wanted to withdraw.

S: And as I say, I married into a family that was, just , I mean, they...I don't mean that they were extremely argumentative, but they didn't believe in holding back if something displeased them. They just called a spade a spade.

I: Can you think of a time when that happened?

S: Well, as I say, I remember the arguments that my husband and his brother would have. And I remember one time I was going to some family party or something, something that my mother-in-law thought was important. I've forgotten

what it was and I thought I had...and I had put on a dress that was part of my trousseau that I thought was a beautiful dress and she didn't think it was quite nice enough for the occasion we were going to. And I've forgotten now whether she suggested that I change or my husband suggested I change. It seems like it was such a minor thing but I remember how much it hurt my feelings. So I guess I wasn't even very good at taking criticism at that point even if it was not anything destructive. She was just probably trying to be helpful.

I: But it sounds like it did hurt. (Uh-huh) Do you remember what that was like for you?

S: I guess it's...it's part of my pattern of trying to please all the time, and so then when I find out I haven't pleased, then it upsets me.

I: What happens when you get upset when you discover you haven't pleased?

S: I become very anxious. I want to do something to make it right.

I: What's it like for you to be anxious?

S: It's funny that that question brings back a memory that goes back to the days in (place) when I had a, when I was at (place), I had a position, I paid my way through school, as assistant social director for the dormitory I was in. So I was left in charge one weekend and one of the women living there had a stomachache and asked me if I would get her some, I don't know, some kind of medicine. And I went down to the drugstore and got what she asked for and brought it back to her. And I remember when the social director came back she found out about it and she said, "Oh, you shouldn't have gotten that for her," whatever it was. "If she happened to have appendicitis, it might cause it to burst." I don't know. There was some problem. It doesn't make much difference what it was. It's just that it frightened me and I really felt horrible that I had done something to cause...and I remember I was going out to visit a cousin in (place) which, you know, was a nice outing for me to visit this family and...but I couldn't think about anything else the whole time I was there... whether this woman was going to be all right, whether I had done something.

I: Sounds like you were very worried about that.

S: I was. And I think that's the way I tend to be when I find that, even that I've displeased somebody. (laughter) I've often laughed and said , you know even if a plumber came to the house and seemed displeased with something I had said to him, I would worry about it. I don't know.

I: So pleasing people is very important (Uh-huh) and when you don't, you feel very worried about it, (Uh-huh) it makes you anxious.

S: Uh-huh. And the anxiety will not usually go away until I can assure myself that somehow I've made it right, or at least found out that I hadn't done anything...that everything was all right and that I hadn't done anything.

I: So it's important...it sounds like it's important to reassure yourself or to take some action (Uh-huh) to make sure.

S: You know, it's funny, I just noticed that I'm getting a headache.

I: You're getting a headache (Uh-huh) just talking about it?

S: Uh-huh. And I never have headaches.

I: So it's hard even to consider what's involved in anger.

S: I don't know whether it's that or whether it's...of course, I'm naturally very much of an introvert. Talking is hard for me period. I am so very much interested in...do you know the study that...is his name Lynch's study about how people's...that just talking is more anxiety producing. I think his name is James Lynch. We had him here for the health conference. I'll look something up if you're interested in it. I have it at home. Anyway, it's a study he's made about how blood pressure and everything else goes up when you talk versus when you're being quiet. So I don't know whether it's...I don't know whether it's, I don't know what to attribute it. The fact that I suddenly realized it isn't bad, you know, it was just a slight...feeling in my head. I don't know whether it's the subject matter or just trying to think of those things and articulate them.

I: It sounds like it's difficult. From what you said in the beginning you've thought about it. It's hard for you to think of times and when you do it sounds like it's really hard for you to describe what it's like or what it was like for you.

S: It is because I really don't remember it in detail.

I: So forgetting seems to be a part of the experience of anger for you.

S: Yes. I just suddenly thought, I remember when I was in (place), there was someone I had dated and he came up there and we went out to dinner together. And I remember we had a violent argument and, you know, the next day I couldn't remember what happened. And I remember trying to recall what he had said and why -- and I couldn't remember.

I: So part of your experience of being involved in or witnessing a violent argument, I guess you were involved in it (Uh-huh) is that when you try to recall it, it's gone. (Uh-huh) You forget it immediately. And even though you might like to recall it (Uh-huh) it sounds like you can't.

S: Uh-huh. I can't tell you, for instance, anything that was said in that incident about going to the (name) Clinic. I just remember that there was a disagreement about whether to go or not. I remember, I sometimes remember the big picture but almost none of the details.

I: But it seems like from your descriptions that there's a tendency to feel...to need to withdraw (Uh-huh) to feel disturbed (Uh-huh) to then forget. Once it's over, to forget the details. (Uh-huh) That sounds like something that has been common to many of the experiences you've described. And the effort on your part to do whatever you can to avoid it (Uh-huh) if you can anticipate it. (Yes).

S: Yes, if I can anticipate it. I think that's a pretty good...I've learned to live with this aspect of myself better in recent years by trying to understand the overall picture. I found that getting angry...I tried getting, expressing my anger and that didn't work, so...because so often, you know, if you can really talk to someone and find out where they're coming from, there ends up not really being any real reason to be angry.

I: Uh-huh. So trying to understand, that sounds very important to you to try to understand and a lot of times you feel it's just not worth it (Uh-huh) to express anger. Is there anything else, (name), that you feel like you want to tell me about your experience of anger?

S: I can't really think of anything. I think we summarized pretty well, the way I feel about it. I think, as I said, I have changed somewhat in the way I approach anger. I don't approach situations that might be anxiety and anger producing. I don't run away from them as much. I do try to anticipate and avoid them. But once I'm involved in them...I really...I can give you a good example of that rather quickly. I did something that...there was something that came up that where I could have used my daughter's husband's expertise to help out in some work and I didn't think about it and didn't call him and his feelings were hurt. Now, that's...that's a perfect situation. In other words, he was angry. He didn't express his anger to me but I found out from my daughter that he was angry and hurt and I just couldn't stand that. So I arranged to meet them both in his office and take lunch and talk it out and explain just how bad I felt about it and it just was an oversight on my part and I didn't mean it.

I: So it upset you to think that he was angry with you. That's another thing I hear, that it's very upsetting for you to think that someone is angry with you, and you

then try to make it better (Uh-huh) repair it, in a way. (Uh-huh) Do you remember what it was like for you when you heard that he was angry with you?

S: Well, I was upset. (Uh-huh) And I immediately started trying to think about what I could do to make it right. (Uh-huh) And I really...you know, I just was...well, I was angry with myself for having overlooked the fact that I...you know, that he was the obvious person to have called him in...

I: What was it like for you to be angry with yourself?

S: That's very hard.

I: Can you describe that or say more about that?

S: Well, it's...it has almost the same result in that I become very anxious and feel that I have to do something. And I can't rest until I do something. I can't get it off my mind. I can't go ahead and do other things and just put that on a back burner.

I: So something about it creates anxiety for you. It creates a desire to act. And not just a desire, but almost you're compelled to act, to do something about it.

S: Uh-huh. I think that's a good word, It's almost a compulsion. It's like something's got hold of me that...like I've got a tiger by the tail or something and I can't turn loose of it until something is resolved. But actually, of course, I've...I've been in two very relatively happy family situations. I don't know why I'm that way. It's so important to avoid conflict.

I: That does sound important to you.

I: Well, I appreciate your participating.

S: Well, it's been interesting and I appreciate your letting me and asking me to participate.

I: Thank you.

I found in trying to think about that, that I had a difficult time coming up with things. And I have known for some time, because in the aftermath of my cancer I did have therapy and that I tend to not express my emotions and I tend to forget becasue I like peace.

I generally try to understand why something has made me angry.

I try, I tend to bury things and I forget them.

...the straw that broke the camel's back.

I know I've been angry but I can't remember the particular circumstances.

...I was hurt and angry.

...I get very upset if I get extremely angry and that may be one reason that I hold it. So, because it never seems to help when you get extremely angry. I end up being even more upset then I was before.

I think one of the problems is that I have such a hard time articulating what it is that is bothering me at the time. And my husband is so articulate. He's so --- you know, he's really an exptremely understanding perons, but we do have differences of opinion -- and it's been difficult for me to express what it is. And I tend to go blank. And I think that may be one reason that I end up more upset than if I just held it in and tried to understand the situation more.

More and more I try to look at what's happening and try to understand. I think I've always tried to do that, but I do it some ways more now.

I think most of my anger has usually been from hurt feelings or fear. I think the two seem related. Primarily hurt feelings.

I was so angry that I ran out of the room and ran downstairs.

My tendency through the years whenever I would get angry was just to clam up, you know, to get out of the situation or just to quit. And I can remember...oh, I can't remember what the causes were...of being so angry that I just wouldn't want to talk to the person I was angry with for a long time.

I feel so terrible inside. I think I would sort of describe it as a sinking, tight feeling in my chest. It's a feeling of complete frustration. Sometimes I'll cry, not always I know I cried in that first incident I told you about. I cried...I think I did in the one years ago in connection with the surgery. It's kind of a helpless feeling.

It's almost as if I just close down when I get angry. I can't argue. I just become completely inarticulate. When someone else says something or makes a point, I can't think of anything to say, so often. And I guess it's a strategy I've worked out through the years is just to retreat.

I guess essentially I want too much to please people.

...I hate controversy and I just go out of my way to avoid it and to keep things peaceful in the family.

I tried in the aftermath of my cancer in having some therapy to express my anger and I found that really didn't help at all. I would consciously try to express it. And all I did was to end up shaking and just feeling, you know, drained, instead of empowered.

I read things about going ahead and expressing your feelings and expressing your anger. It doesn't help. Maybe I don't express it in the right way or what. I don't know what it is. It just doesn't help.

...I end up thinking "Why did I get angry over that? It wasn't important enough for all this unpleasantness."

I'm pretty much convinced that, at least for me, it works better to try to anticipate situations to a certain extent and avoid and to understand them and just not let things get to the point where there is an explosion.

I try very hard never to make suggestions or anything, to do things to keep things as calm there as possible.

...when we were first married it was quite a shock to me to see the way they would confront each other about things. And he and his brother sometimes would get into violent arguments and it frightened me.

I often wish that maybe we had been more frank with each other in my own family and that way perhaps it wouldn't have been so difficult for me.

...sometimes I think maybe it's good to learn how to...how to fight and argue when you're growing up.

...it's part of my pattern of trying to please all the time, and so then when I fing out I haven't pleased, then it upsets me.

And I think that's the way I tend to be when I find that, even that I've displeased somebody. (laugh). I've often laughed and said, you know, ene if a plumber came to the house and seemed displeased with something I had said to him, I would worry about it.

I remember when I was in (place), there was someone I was dating ahd he came up there and we went out to dinner together. and I remember we had a violent argument and, you, know, the next day I couldn't remember what happened. And I remember trying to recall what he had said and why...and I couldn't remember.

I can't tell you, for instance, anything that was said in that incident about the Simonton Clinic. I just remember that there was a disageement abouth whether to go or not. I remember, I sometimes remember the big picture but almost none of the details.

I found that getting angry...I tried getting, expressing my anger and that didn't work, so...because so often, you know, if you can really talk to someone and find out where they're coming from, there ends up not really being any real reason to be angry.

I think, as I said, I have changed somewhat in the way I approach anger. I don't approach situations that might be anxiety and anger producing. I don't run away from them as much. I do try to anticipate and avoid them.

What is it like for you when others get angry?

It frightened me.

I used to go out of the room.

I used to be afraid it would break into a fight.

It's part of my pattern of trying to please all the time, and so when I find out I haven't pleased, then it upsets me.

I become very anxious. I want to do something to make it right.

I worry about it.

I was angry with myself. (?) ..it has almost the same result in that I become very anxious and feel that I have to do something. I can't rest until I do something. I can't get it off my mind... It's like something's got hold of me that --- like I've got a tiger by the tail or something and I can't turn loose of it until something is resolved.

It's so important to avoid conflict.

The subject got a headache.

APPENDIX B-4

SUMMARY OF TRANSCRIBED INTERVIEW OF PATIENT WITH BREAST CANCER

The participant is a 74 year old married white female who was diagnosed with breast cancer in 1982. At that time, she underwent a mastectomy and one year of chemotherapy. She is retired and is currently working toward a Ph.D. degree, and she is actively involved in volunteer service which provides educational and peer support to cancer patients. She reported a the occurrence of cancer among other family member, including a grandmother, a sister, and a brother. She has had no other major illnesses or chronic health problems, and she named her husband as her primary source of emotional support. The most prominent themes in her description of anger are "My Life Was Involved," "Forgetting," "Keeping The Peace," "Anger Never Seems To Help," "Needing To Please," "The Way Our Family Was," "Making It Right," and "A Tiger By The Tail."

Our interview may best be summarized as a progressive flow. She opened the interview by stating that she had experienced difficulty in thinking of incidents of anger. She began by describing two incidents which occurred when her husband did not seem to recognize the seriousness of situations in which her "life was involved." She felt angry and cried when he suggested that they go shopping instead of participating in a program for cancer survivors. Many years before, she had become upset and had run out of the room when he advised her to "wait and see

what developed" instead of having exploratory surgery for a suspicious mass in her stomach.

She described anger of her as "a sinking, tight feeling" in her chest. While it was difficult for her to remember specific angry incidents, she was able to describe her experience of anger in abstract terms. When she is angry, she tends to "go blank," to feel helpless, and to become inarticulate. Because her anger is so upsetting, she tends to hold it in, "clam up," get out of the situation, or avoid the person who has made her angry. She dislikes controversy and feels that it is important to keep things peaceful in the family.

During therapy following her cancer, she was encouraged to openly express her anger, and she found that this left her feeling shaken and drained instead of empowered. She has concluded that expressing anger "never seems to help," so she tries to understand the other person's point of view and to anticipate and avoid situations that might result in controversy.

Her description of "The Way Our Family Was" revealed the impact of restricted emotional expression in her family of origin on her emotional experience over a lifetime. Because she learned to "skirt around everything" in order to keep things alright on the surface, she was unprepared for the open expressions of anger among members of her husband's family. Their confrontations alarmed and frightened her, and she would leave when they argued, fearing that "it would break into a fight." She sometimes wishes that her family had been "more frank with each other" so that anger would not be so frightening and difficult for her.

She spoke of her need to please others and how upset she becomes when she discovers someone is not pleased. She remembered incidents from early adulthood in which she felt hurt and anxious that she had been displeasing to others. This led her to describe an incident in which she was angry with herself when she discovered that she had overlooked her son-in-law's expertise when making a decision. She became very anxious and was unable to "get it off her mind" until she did something to "make it right." When she is angry with herself, she feels as if she has "a tiger by the tail" which she cannot "turn loose" until she has resolved the situation.

She concluded the interview by commenting on the fact that she has had two happy family situations and that, while she is not sure why, it is important to her to avoid conflict.

APPENDIX B-5

PROTOTYPICAL DESCRIPTIONS OF ANGER AMONG WOMEN WITH CARDIOVASCULAR DISEASE AND BREAST CANCER

For a woman with cardiovascular disease:

Anger is triggered by behavior in others which she considers irresponsible, irritating, critical, insensitive, or unjust. It is an immediate negative feeling of nervousness and shakiness during which she may feel "out of control," explosive, violent, consumed, and overwhelmed, and which requires a struggle to control. It usually includes a sense of helplessness, negative thoughts about the other, a desire for revenge, and a need to take action. It is recognized as something destructive which must be "gotten out of the system" and is usually expressed verbally in a determined manner, but it may build up, resulting in "a good cry" or an explosion. Its expression usually brings relief, but it may be reexperienced when she thinks or talks about it.

For a woman with breast cancer:

Anger does not occur often, and when it does, it is when she feels something has occurred that "shouldn't have happened" --- when she feels misunderstood or unsupported, when she or someone she cares about is being mistreated, or when others are behaving in an irresponsible or offensive manner. It is a "terrible" feeling of tightness, heaviness, and being "tied in knots," which usually includes hurt, disappointment, and sadness. It may occur quickly, but more often it "stews," building and welling up as it comes closer to the surface. It creates confusion, a sense of helplessness and resignation, and it is usually held in, hidden, and forgotten. When expressed, it is usually spoken calmly and quietly, but it may "leak out" in tears or "break loose" in screams. Its expression does not bring relief and is often followed by having to do something to "make it right."

VITA

Gayle Louise Stubbs Garrison was born in Atlanta, Georgia, on December 1, 1944. She is the daughter of William Lollie Stubbs, Jr., and Sara Louise Cash Stubbs.

She entered elementary school at Pape Elementary School in Savannah, Georgia, when she was five years old. Because she had learned to read at an early age, she was placed in the second grade. After moving to Fernandina Beach, Florida, for two years, she and her family moved to East Point, Georgia, where she attended Jere Wells Elementary School and Headland High School. She entered Agnes Scott College in Decatur, Georgia, at the age of 16, and graduated with a B.A. in Psychology in 1965. Following graduation, she entered Emory University in Atlanta, and graduated with a M.A.T. degree in 1966.

She married Webb Black Garrison, Jr., in 1966, and taught in elementary school until the birth of their first child in 1968. During the next twenty years, she dedicated herself to caring for her five children--Kathryn Patricia Garrison, Webb Black Garrison III, Gregory William Garrison, Benjamin Stubbs Garrison, and John Paul Garrison. In 1988, she entered Western Carolina University in Cullowhee, North Carolina, to study Clinical Psychology. She earned a M.A. in Clinical Psychology in 1990, and moved with her family to Knoxville, Tennessee, to work toward her Ph.D. degree at the University of Tennessee (Knoxville). She completed a psychology internship at the Psychology Consortium at the Medical College of

Georgia Department of Psychiatry and Health Behavior in Augusta, Georgia, and received her Ph.D. from the University of Tennessee in 1995.