

HOPE AND WAYS OF COPING AFTER BREAST CANCER

BY

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(i)

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ABSTRACT

The aim of this study was to ascertain the coping methods of women in long term follow-up of breast cancer treatment. Furthermore, personality traits that deal with the spectrum of positive affectivity were introduced to determine whether these impact on women's appraisal of their situation and their subsequent choice of coping mechanism. Thus, a process approach to exploring coping strategies and a goal-attainment conceptualization of hope were used to determine whether hope is associated with coping appraisal in the long term follow-up of breast cancer treatment. Furthermore, high hope women were expected to use more problem focused coping methods and low hope women were expected to use more emotion focused coping skills. Women in cancer remission who attend yearly or six-monthly check-ups at the Johannesburg hospital were approached to complete the questionnaire and brief interview. Although the study did not confirm that low hope and high hope women use different kinds of coping strategies, the predicted relationship between hope and challenge appraisals was supported by significant correlations. However, it was found that hope may be analogous to positive affect, thus indicating the need for further validation of the Hope Scale. Finally, it was concluded that breast cancer need not be seen as a devitalising disease and that there are a variety of coping strategies which can be utilized to enhance patient's positive emotional state. The women in this study use the emotion focused coping skill of positive reappraisal which concentrates on the possibilities for mastery and growth that inhere in their long term follow-up treatment. Moreover, women are extremely positive and hopeful in their daily outlook and while this personality trait seems to suggest that denial is at play, it is more likely that women in long term

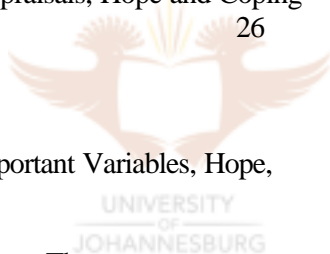
remission have a strong belief in their own personal qualities and future. Women in this study choose to distance themselves from the implicit trauma of the threat of recurrence in favour of an active belief in their personal resilience to overcome any stressful event or outcome.

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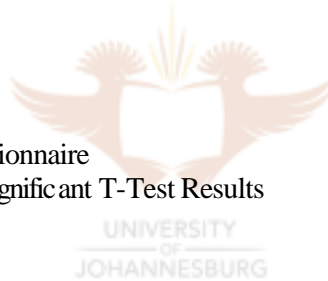
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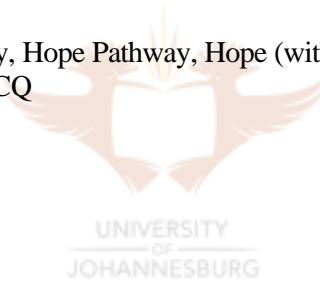


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**CHAPTER 1. INTRODUCTION**

Breast cancer is widespread among South African women. The National Cancer Registry indicates that it is the most frequent histologically diagnosed cancer in Asian and coloured women and it is second only to cervical cancer in blacks and to skin cancer in whites (Said, 1993). This picture is reflected in universal figures and the understanding of breast cancer has increased to the extent that it no longer remains exclusively within the medical domain. Measurement of the psychological and social effects of cancer have been assessed and strategies for combating these effects have developed, culminating in what is known as the science of psychooncology (Sanders,

1993). Breast cancer is now seen as a rehabilitation concern, encompassing all factors from medical care to full personal readjustment (Joiner & Fisher, 1981).

Since the early 1950s the psychosocial morbidity connected to the diagnosis and treatment of breast cancer has been well documented (Ganz, Hirji, Sim, Coscarelli Schag, Fred & Polinsky, 1993). Early seminal documents, while mostly anecdotal, highlighted that anxiety and depression, as well as impairments to physical and sexual functioning were common sequelae, while more recent and controlled studies have also reported significant psychological and emotional distress amongst women with breast cancer (Hopwood, Howell & Maquire, 1991; Jarrett, Ramirez, Richards & Weinman, 1992). The figures currently noted by Fallowfield and Hall (1991), suggest that between 25% and 35% of all women with breast cancer will develop anxiety and/or depression at some stage of their treatment. A reasonable interpretation of this data is that women with breast cancer face severe traumas. The reality of a cancerous growth in the body may lead to anxiety over the patient's future, her continuing health and life. Moreover, treatment of breast cancer (mastectomy or lumpectomy) entails an assault on the body. The ensuing and profoundly negative effect on feelings of self-esteem, body-image and psychological and sexual behaviour is, Gilboa, Borenstein, Floro, Shaffir, Falach and Tsur (1990) believe, a direct result of this assault on a women's body in general and on her



femininity in particular. This would certainly be the case for women living in a culture that promotes breasts as symbols of sexuality, fertility and femininity as strongly as the one in which we live (Fallowfield & Hall, 1991; Apfel, Love & Kolinowski, 1994; van der Pompe, Antoni, Visser & Garssen, 1996).

The study of breast cancer from the psychosocial perspective has highlighted its characteristics as a systemic disease (Rowland, 1998). In 1996 there were six million Americans alive with a history of cancer (Wyatt & Friedman, 1996). This highlights that for many, cancer has been transformed from a rapidly fatal condition to a chronic illness (Ganz et al., 1993). Moreover, cancer patients regardless of their age or phase in the life cycle also fear recurrence, fear becoming dependent, fear a loss of function, social value or inability to complete the goals of their assumptive world (Fawzy, Cousins, Fawzy, Kemeny, Elashoff & Morton, 1990). As a result of these concerns, women living with a disease like breast cancer must often meet a new set of demands that are not among their usual repertoire of skills and knowledge (Richardson, 1992). Neither, do they have endless time to resolve these threatening and disruptive changes. Nature and reality allows only a temporary suspension of the normal responsibilities of being a wife, a mother and so on (Cohen, Cullen & Martin, 1982). However, if stressors, like acceptance of disfigurement and potential relapse, are not resolved, it will be extremely hard for the patient to begin building a new life. Furthermore, the psychological work when living with breast cancer over time highlights different challenges and opportunities from the initial shock of the diagnosis (Apfel et al., 1994). Once women

have coped with the initial treatment and threat of cancer, each follow-up visit to the oncologist reawakens fears of “what will they find this time” (Baum, 1981: p. 78).

This data notwithstanding, many studies have indicated that there is considerable variability in adaptation to cancer and cancer treatment (Sommerfield & Curbow, 1992). While researchers have examined factors like cancer site in an attempt to

explain these differences, findings by Levy, Herberman, Lippman, D’Angelo and Lee (1991) and Spiegel (1996) suggest that immunological variables and psychosocial variables, along with important biological variables may possibly contribute more to the explanation of the greater outcome variability of cancer than has been believed in the past. This need to include additional psychological variables in the interpretation of breast cancer outcome has also been acknowledged by Jarrett and colleagues (1992). They believe that patients' cognitive and behavioural coping responses to cancer may explain a large proportion of these individual differences in psychological adjustment.

It has been found that coping responses depend not only on situational factors such as the stressors of breast cancer but also on the intrinsic resources of patients, mostly their personality traits (Heim, 1992; Sommerfield & Curbow, 1992; Edgar, Rosberger & Nowlis, 1992). Researchers from medical or psychodynamic traditions have tended to focus on negative constructs in understanding how individuals cope with and respond to cancer. References to items such as hopelessness, repression and denial are used more frequently in the cancer literature than are references to positive motivational states (Snyder, Harris, Anderson, Holleran, Irving, Sigmon, Yoshinobu, Gibb, Langelle & Harney, 1991). However, a positive trait which has been suggested to enhance physical well-being is hope. While it is a fairly new concept in the field of psychooncology, several studies suggest that it is of importance to cancer patients (Yates, 1993).

The goal of this study is to highlight characteristic ways of coping in response to long term follow-up of breast cancer treatment. As coping involves an appraisal of the specific stressor this will also be assessed in order to gather information on whether women cope adequately with their treatment. The construct hope will be included as a personality factor in order to determine whether a hopeful appraisal is related to one's ability to cope with cancer. Thus, this study will explore whether breast cancer patients view their condition as challenging or threatening, whether they use primarily emotion-focused coping or problem-focused coping and how their level of hope relates to their ways of coping. There are an increasing number of

women who are being treated for and surviving breast cancer and this demands that the medical community identify and treat the psychological issues that arise during the

course of treatment.

This research study is a precursory inquiry into the cognitive and behavioural coping strategies women employ in the long term follow-up of breast cancer treatment. The following chapter will discuss the theoretical paradigms proposed in this study in order to contextualize the association between coping strategies and the variable hope. The third chapter describes the methodology of the study as well as the questionnaires used, while the fourth chapter presents the results of the study itself. The fifth chapter focuses on a discussion of these results and concludes with a summary and proposals for future research.



CHAPTER 2. LITERATURE REVIEW

2.1 Stress and Health

The combination of social science and medicine has spawned many subdisciplines: behavioural medicine, health psychology, medical sociology, psychosocial and psychiatric epidemiology, psychosomatic medicine and psychoneuroimmunology (Cooper, 1996). The human body and its balance are extremely complex and there are many factors that can compromise health. Stress is one such factor. The research regarding the correlation between psychosocial variables like stress and coping and progression of disease are still controversial. Nevertheless, certain diseases have been shown to be primarily immune related, including cancer, autoimmune disorders and infectious diseases. Further, psychological processes have been shown to affect immune function. According to van der Pompe et al. (1996), different findings may be

the result of the design and analysis of studies. Furthermore, there are many prognostic variables like tumour stage as well as behavioural variables like diet and use of alcohol that may be responsible for inconsistent findings. In addition, patients may vary in immune system status. Nevertheless, a woman is surely not only a product of risk factors like genetic make-up. The question to ask is: how much control does a woman have over her health and common sense and empirical results suggest the middle ground (Blechman, 1998). Thus, in order to obtain insight into the relation between breast cancer and psychosocial factors like coping, it is imperative to work in the line of psychoneuroimmunology.

2.2 Psychoneuroimmunology (PNI)

It has been hypothesised in the PNI literature that the impact of psychosocial variables on breast tumour progression is mediated by the immune and neuroendocrine system (van der Pompe et al., 1996). This premise seems reasonable taking into consideration that (a) the mammary tumour can discriminate



specific hormones (oestrogen and prolactin) and (b) the function of the immune system seems to be related to progression of breast cancer. The majority of cancer patients, including women with breast cancer, have a well functioning immune system at the time of the initial diagnosis but as disease progresses, immunological changes have been noted. Bearing in mind that in chronically stressed individuals an equal pattern of immunological changes can be seen as in relation to progression of breast cancer, it could be possible that psychosocial factors influence the course of breast cancer. This might be caused "directly by modulating endocrine processes, which are related to tumour growth, or indirectly via decrements in immunologic control over tumour development and metastases" (van der Pompe et al., 1996: p 215).

Stress has long been known to affect an individual's autonomic, endocrine and immune systems and the discipline of PNI advances that the central nervous system, behaviour and the immune system regulation are highly involved. The work of the immune system is to fight against disease-causing micro-organisms and tumours. The immune system comprises three types of cells, lymphocytes, phagocytes and auxiliary cells, each of which plays a certain role in the immune reaction. Lymphocytes include natural killer (NK) cells, B cells and T cells, which are further split into T helper and T cytotoxic cells. NK cells attack virally infected cells and certain types of tumours, while B cells and T cells destroy bacteria, viruses, parasites and fungi. Phagocytes include monocytes, neutrophils and eosinophils, which help in the phagocytosis or destruction of invading microorganisms (Bower, 1998).

According to Andersen (1998), stress impacts on the immune system by way of the central nervous system or through the activation of neuroendocrine immune pathways

(release of hormones) and in the latter case, a variety of hormones released during stressors have been implicated in immune adjustment. When a person appraises a situation as threatening, strong physiological reactions arise in

the sympathetic adrenomedullary and hypothalamic pituitary adrenocortical systems. Endogenous opioid activity also occurs. Excessive sympathetic nervous system activity may result in cardiovascular disease, whereas excessive adrenocortical activity may suppress the immune system and contribute to cancer (Lightsey, 1996). Moreover, experts in the field of the immune system in relation to cancer highlight the following important findings with regard to the specific importance of natural killer (NK) cell activity: "1. Patients with a variety of solid malignancies and large tumour burdens have diminished NK cell activity in the blood, 2. Low NK activity in cancer patients is significantly associated with the development of distant metastases, and 3. In patients treated for metastatic disease, the survival time without metastasis correlates with NK activity" (Andersen, 1998: p 575). These results have similarly emerged in the field of breast cancer. Thus, cancers that are etiologically related to hormonal stimuli, such as breast cancer, may react more to stress as stress predicts lower NK cell lysis and T-cell function (Andersen, 1998).

One of the early foundations of psychooncology was the recognition that psychological factors were related to the course of disease in cancer patients. The more significant findings were that patients with a fighting spirit or denial, good social relationships and family support and low depression, distress and helplessness were more likely to live (Kreitler, Kreitler, Chaitchik, Shaked & Shaked, 1997). Furthermore, Spiegel and colleagues (1998) found that breast cancer patients who were involved in group therapy for 1 year, lived significantly longer than patients in the control group. There has also been research that indicates that psychosocial factors may determine in part the specific kind of cancer in question (Grossarth-Maticek, Eysenck, Pfeifer, Schmidt & Koppel, 1997). In the area of PNI, studies have focused mainly on coping strategies that incorporate emotional regulation. There is evidence to suggest that the inhibition of emotional experience or expression has a negative effect on immune functioning while, active coping has been associated with increases in NK cell activity among HIV-positive gay men (Bower, 1998).

It is beyond the scope of this research to describe in detail the possible mechanisms along which psychosocial stressors may influence progression of breast cancer. However, in view of the evidence that stress compromises immune system functioning and time-limited stressors such as examinations result in negative immunological changes in relatively healthy persons (Lightsey, 1996), this paper will look at to what

extent does attending a six monthly or yearly check-up carry the potential for renewed threat or the opportunity for personal growth among cancer survivors ?

2.3 Traditional Definitions of Coping in Cancer

A person's coping skills during a stressful event such as a medical check-up are a very important component in determining the influence the event will have on the individual. Interest in the theory of coping can be traced back to initial psychoanalytic conceptualizations (Sommerfield & Curbow, 1992). Freud conceptualized coping as a defense mechanism that was primarily an unconscious response of a person to intrapsychic conflict (Blanchard & Harper, 1996). Researchers, such as Margarey, Todd and Blizard (1977), used psychoanalytic definitions of coping in the study of cancer patients that differentiated between "coping" and "defences". Coping responses were judged realistic, flexible and adaptive responses to stress. "Defences" were believed to be rigid distortions of reality and therefore maladaptive. Thus, most of the early research likened coping to psychological adjustment and a successful outcome. According to Jarrett et al. (1992), these studies confounded the nature of the coping response with the outcome of psychological adaptation.

This traditional approach to coping was encompassed in trait theory, which focuses on what individuals do or would do in managing stressors. In recent years, however, the trait approach has been judged as incomplete for several reasons. First, this approach assumes consistency of coping across situational context, an assumption that has not been supported by empirical evidence (Sommerfield & Curbow, 1992).



Second, evidence demonstrates that coping traits are poor predictors of actual coping processes and finally, the trait-approach underestimates the variability and complexity of actual coping behaviour. Moreover, if people have distinct traits and some traits are better suited to coping with disease, then there is little that can be done, even in theory, to aid or prepare therapeutic intervention (Sommerfield & Curbow, 1992).

One of the best known and quoted studies (Greer, Morris & Pettingale, 1979), which explored coping in women with breast cancer, organised patients' replies to a structured interview into four mutually exclusive coping scales. These included denial, fighting spirit, stoic acceptance and helplessness/hopelessness. However, an attempt to replicate these results with a more semi-structured interview, the Faith Courtauld Schedule for Coping with Cancer, was mostly unsuccessful (Burgess, Morris & Pettingale, 1988). Instead it was found that patients with cancer employ a variety of cognitive and behavioural responses, which often reflected all four coping styles in one interview. Since coping is so crucial to a person's well-being, developing models and instruments that can accurately measure coping strategies is according to Clark, Bormann, Cropanzano and James (1995: p. 434), "vital".

2.4 Folkman and Lazarus' Process Model of Coping

With the current attention to stress research and, in particular, to the impact of stressful life events on psychological and physical functioning, there has been a shift to conceptualizations of coping as an active, conscious response. Contemporary research on coping with cancer has moved away from the inquiry into enduring coping traits and towards more comprehensive approaches to the coping process such as outlined by Folkman and Lazarus (Sommerfield & Curbow, 1992). These authors define coping as "the person's constantly changing cognitive and behavioural efforts to manage specific external and or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984: p. 141).

The first noticeable focus of Folkman and Lazarus' model is that coping should be assessed in relation to a specific context. More specifically, one should desist with global assessments of coping in favour of situation or problem specific assessments in which coping is measured with regard to particular stressors. Every encounter, even the most simple, is usually complex and contains multiple facets and implications for well-being that either exist side by side or arise sequentially. This is why there can be more than one emotion or coping strategy in any encounter and sometimes, contradictory ones (Heim, 1992). Historically, coping was viewed as a response to emotion (Monat & Lazarus, 1991). However, according to Folkman and Lazarus (1988), the effects of coping on emotion are equal to, if not greater than, the effects of emotion on coping. This principle highlights the complex and dynamic nature of emotions and coping and points the way for us to investigate the precise mechanisms through which coping mediates emotional response.

The word "manage" in the above definition is also important. It indicates that coping efforts can be quite varied and do not necessarily lead to a solution of the problem. Although coping efforts can and some would argue, should be aimed at correcting or mastering the problem, they may also simply help the person alter his or her perception of a situation, endure or accept the threat or escape or avoid the situation (Sarafino, 1990). A practical advantage of this process approach for the formation of therapy to assist coping of cancer patients is that it may be easier to change what people do (the process approach) instead of who they are (the dispositional approach) (Blanchard & Harper, 1996).

Folkman and Lazarus (1984) describe two general ways in which people cope with stressful circumstances. The first, termed problem-focused coping, consists of attempts to deal with the source of the stress. Problem-focused coping involves some kind of action aimed at removing, reducing or circumventing the threatening stimulus. By erasing or reducing the demands of the stressful situation, problem-

focused coping allows one to move forward toward the attainment of goals with which the stressor may be interfering.

The second strategy, termed emotion-focused coping, involves the attempt to control or eliminate the emotional distress associated with, or prompted by, the stressful situation. In the view of Folkman and Lazarus (1984), regulating one's emotional responses through thoughts or actions has two potential benefits. First, the reduction in distress is itself beneficial. Second, the emotions aroused by the stressor impede active attempts to confront it. Thus, emotion-focused coping, by reducing subjective distress, should make it easier for one to return to problem-focused coping (Folkman & Lazarus, 1984).

The classification of coping into two categories does not imply that we use one or the other process exclusively. Rather, it is most likely that people engage in a mixture of the two strategies in most stressful circumstances. There is evidence, however, that certain variables influence which strategy will predominate in people's responses. Problem-focused forms of coping are more likely to be used in situations where people believe that something constructive can be done about the stressor. Emotion-focused coping is more likely employed when people believe that little can be done to alter the events of the situation (Scheier & Carver, 1987).

An issue that frequently emerges in discussions of coping is whether some coping processes are more effective than others (Jarrett et al., 1992). There is, unfortunately, no simple answer due to factors such as culture, values, stage of encounter and specific context. For example, conduct which might be effective from, say the biological perspective, might have harmful consequences for the psychological sphere. Traditionally, emotion-focused coping (particularly defence mechanisms such as denial) was viewed as pathological or maladaptive. Nonetheless, Monat and Lazarus (1991) argue that emotion-focused coping may be damaging when it prevents essential direct action but may also be extremely useful in helping a person maintain a sense of well-being, integration or hope under conditions otherwise likely to encourage psychological disintegration.

Folkman and Lazarus (1984) view coping as a multidimensional process and thus they have identified eight kinds of coping, which according to the context of this study can be divided into two primarily problem-focused strategies in that they are directed at altering the distressing situation. Five additional kinds of coping are primarily emotion-focused in that they are directed at managing distress rather than altering the troubled environment. Finally, there exists a single category, which is both problem-focused and emotion-focused. These strategies are listed later in the description of the measures to be used in the research (see page 31).

Coping plays an important role in the mediation of the relationship between the appraisal of a situation and adjustment (Mishel & Sorenson, 1991). Within the framework of Folkman and Lazarus' theory (1985), appraisal includes two processes namely, primary and secondary appraisal. Through primary appraisal a person judges whether a situation is stressful or not. Stressful appraisals then are characterised by threat, challenge, harm or benefit. The first two appraisals belong to the anticipatory stage of an encounter with threat referring to the potential for harm or loss and challenge referring to the potential for growth, mastery or gain. The latter two appraisals belong to the outcome category with harm referring to injury already done and benefit referring to advantages already incurred. In secondary appraisal the person evaluates their coping resources and options available in an encounter. However, similarly to emotion and problem focused coping, primary and secondary appraisal processes operate interdependently producing certain emotions indicative of threat, challenge, harm or benefit appraisals (Folkman & Lazarus, 1985). These emotions are listed later in the description of the measures to be used in the analysis. Furthermore, appraisals of threat and harm are normally related to the use of destiny, wishful thinking and styles of coping with the purpose of reducing anxiety by reconstructing the event or its expected outcome. Challenge and benefit appraisals, on the other hand, are related to more dynamic and diverse coping strategies such as rational action, persistence, positive thinking, restraint and drawing strength from adversity (Snyder et al., 1991). This process is summarized in Figure 1 (see page 13).



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STRESSFUL ENCOUNTER

APPRAISAL

PRIMARY

SECONDARY

EMOTION
Quality and Intensity

COPING

Problem-focused

Emotion-focused

Altered Stressful Encounter

Change in Attention or meaning

Reappraisal
EMOTION
Quality and Intensity

Figure 1 Coping as a Mediator of Emotion

Somerfield and Curbow (1992) cite authors who emphasize the pragmatic advantages of the process approach for designing coping interventions for cancer patients. They emphasize the need for situationally orientated approaches and have suggested, for instance, that it may be easier to change features of individuals' coping repertoires (ie: what they do) than to change individuals' preferred styles of coping. The process approach offers promise that individuals can be trained in effective responses for coping with the psychological consequences of illness (Somerfield & Curbow, 1992). Finally, coping is extremely important in any long term adjustment to a stressful situation, in securing rehabilitation and overcoming distress and in regaining a proper equilibrium, intra-psychically, in relationships and social duties (Heim, 1992). The process of appraisal and the coping strategies employed during breast cancer check-up are thus, crucial in understanding the mediating processes through which this event impacts on health. Figure 2 (see page 15) presents an integration of the stress and coping process as described in relation to follow-up treatment and well-being (adapted from Miller & O'leary, 1993).

YEARLY FOLLOW-UP TREATMENT

PRIMARY APPRAISAL

- Anticipatory Stage

* Threat appraisal: potential for relapse

* Challenge appraisal: remission

-

-

- Outcome

Expectancies

* Harm: mastectomy/lumpectomy/self-esteem

* Benefit: growth

SECONDARY APPRAISAL

- Coping self-efficacy

- Generalised Coping expectancies
helplessness/optimism/hopelessness

- Perceptions of external resources

COPING STRATEGIES AND STYLES

- cognitive and behavioural strategies to manage:

* problems * emotions

STRESS-PSYCHOLOGICAL REACTIONS

- Sympathetic arousal

- Pituitary adrenocortical activation

- endogenous opioid activity

HEALTH OUTCOMES

- Cardiovascular

* myocardial infarction

* angina pectoris

* hypertension

- Immune related

* infectious disease

* cancer

* autoimmune disease

- Pain/Muscle tension

Figure 2 The stress and coping process in relation to long term follow-up treatment

2.5 Personality Variables in Breast Cancer

The factors defining our coping styles in specific circumstances like breast cancer are undeniably complex and largely unexplained at this time but likely depend on personality as well as upon the situation being faced. Personality influences the coping strategies people select and these coping strategies influence subsequent outcomes such as changes in emotional distress. This contributes to the understanding of how static personality traits reveal themselves dynamically under stress.

While so called Type C cancer prone patients have been characterized as "cooperative, conforming, compliant and unassertive, with a tendency to suppress negative emotions, particularly anger" (Cooper, 1996: p. 37), until recently the role of personality factors in coping with cancer had been largely neglected (Somerfield & Curbow, 1992). Those studies that have examined this role suggest that personality variables may be implicated in coping with cancer in various ways. They may obscure the relationship between coping and adjustment, or they may help to predict both the efficacy and the frequency of using various coping styles. They may also influence the nature of primary and secondary appraisals, two central features of the coping process (Somerfield & Curbow, 1992; Lightsey, 1996).

According to Shewchuk, Elliot, MacNair-Semands and Harkins (1999), personality traits need to be accorded appropriate consideration in relation to stress appraisal and coping. Their data indicates that "other mechanisms germane to stress appraisal and coping remain unmeasured and outside the theoretical model" (Shewchuk et al. 1999: p. 701). While the Type C cancer patient profile is well known and focuses more on negative personality traits, in recent years, psychologists have become increasingly concerned with the positive end of the psychological well-being spectrum. Rather than highlighting factors that lead to disorders such as depression and anxiety, researchers have begun to examine the



antecedents and consequences of happiness, self-esteem, optimism and other indicators of positive well-being. However, Lucas, Diener and Suh (1996) believe that because these constructs often arise from different research traditions, the psychologists who develop them may not be familiar with finding outside their own field. As a result, research that "systematically examines the relations among the constructs is scant" (Lucas et al., 1996: p. 616).

2.5.1 Snyder's Conceptualisation of Hope

The concept of hope has been intertwined with the Western psyche through the ages. According to Greek mythology, Hope was the final and only good spirit to escape from Pandora's box (Magaletta & Oliver, 1999). Constructs akin to hope made an appearance into psychological literature around the 1950s with authors noting the importance of hope in therapeutic change, willingness to learn and general well-being. Twenty years later, hope became recognised as a moderator of stress on physical well-being. From Bandura came a fortune of literature regarding expectancies, a construct that shares with hope the belief that desired outcomes will occur. Furthermore, Scheier and Carver (1987) developed the construct of optimism, which was similar to hope in highlighting the expectancy of experiencing good outcomes in ones life.

While the emphasis of authors writing about hope has varied, most agree that hope is a psychological construct indicating positive expectation for goal attainment and most

emphasize that it is deserving of investigation (Staats, 1989). Earlier conceptualizations of hope presumed that human beings were guided by goals but they usually did not attempt to explain the means by which such goals were pursued. In this study particular attention is paid to the recent definition of hope proposed by Snyder and his colleagues (1991; 1995) who augmented these earlier theories of hope by stressing both the person's goals and the strategies by which those goals are met. They submit that there are two major, interrelated ingredients to the hope process. First, it is assumed that the hope process is activated by a

sense of effective goal-directed determination (the agency component); second, hope involves a successful sense of planning to meet one's goals (the pathways component). More specifically, hope is defined as a "positive motivational state that is based on an interactively derived sense of successful (a) agency (goal-directed energy) and (b) pathways (planning to meet goals)" (Snyder et al., 1991: p. 287).

While this overall definition of hope stresses cognitive factors relating to goal-related behaviours, the agency component particularly describes a sense of personal energy and perseverance and is likely to have more emotional manifestations than the pathways component (Snyder et al., 1991). Thus, while previous definitions of hope fulfilled either a cognitive or an emotional function (Staats, 1989), Snyder's definition of hope encompasses both cognitive and emotional aspects of goal-directed behaviour (Magaletta & Oliver, 1999; Nunn, 1996). The hope construct is cognitive in its emphasis however, it does not follow that emotions are irrelevant. Rather, Snyder (1995: p. 355) suggests that the "quality of emotions reflect the person's perceived level of hope in the particular situation".

It would also appear from Snyder's conceptualization, that self-efficacy, optimism and hope are related but not identical constructs. They share a central belief in expectancies and the fact that they are cognitive sets that "(a) pertain to the individual's outcomes or goals, (b) pertain to the future and (c) are powerful, if not the strongest, determinants of behaviour" (Magaletta & Oliver, 1999: p. 541). However, hope is unique in that it includes dimensions of expectancies about both self-efficacy and outcomes.

Higher hope people as compared with lower hope people are presumed to report more agency and a greater number of pathways in the goal-directed endeavours of their lives and therefore are more likely to have a higher cognitively perceived probability of goal attainment than lower hope subjects (Staats, 1989). Thus, the

underlying assumption of the theory described in this chapter is that both the agency and the pathways components must be studied in order to discover the full meaning of the hope concept (Snyder et al., 1991).

Phenomena such as hope are very complex and subjective in nature. Phenomenological descriptions or ethnographic accounts that may contribute to our understanding are lacking. Therefore, it is important that we remember that problems can arise when we try to oversimplify complex phenomena and that there are limits to how current research methodologies have been applied in the study of hope (Yates, 1993). Nonetheless, according to Nunn (1996), there are many reasons why hope should be researched to a greater degree than in the past. He believes that hope is important in mind-body interactions and that the function of hope and loss of hope in the onset, perpetuation and emotional sequelae of physical illness, reveals both indirect and direct relevance.

2.5.2 The Relationship between Positive and Negative Affectivity and Hope

Although the terms "Positive Affect" (PA) and "Negative Affect" (NA) may imply that these two items are opposites and clearly negatively correlated, they have in fact appeared as highly unique dimensions that can be meaningfully portrayed as orthogonal dimensions in factor analytic studies of affect (Watson, Clark & Tellegen, 1988). Briefly, PA indicates the extent to which a person feels enthusiastic, active and alert. High PA is a state of "high energy, full concentration and pleasurable engagement" (Watson et al., 1988: p. 1063) whereas low PA is distinguished by sadness and apathy. In contrast, NA is a general dimension of subjective anxiety and disagreeable engagement that includes a variety of aversive mood states, including anger, contempt, disgust, guilt, fear and nervousness, with low NA being a state of tranquillity and placidity. Trait PA and NA roughly correspond to the dominant personality factors of extraversion and anxiety/neuroticism, respectively (Watson et al., 1988).

According to Snyder et al. (1991), these two constructs should be moderately related to the hope construct. Since higher hope subjects may be less prone to exhibit NA and self-deprecatory cognitions across goal-related situations, hope scores should exhibit significant negative correlations with indices of NA. Moreover, the person who is hopeful or envisions the possibility of a positive future is more apt to engage in activities directed toward that future. By anticipating success and focusing on its consequences, people with high hope may indeed enhance their chances of success by fostering positive affective states that are related to a greater degree of behavioural determination and organised action (Snyder et al., 1991). In contrast, those persons who have no hope and view the future negatively are less apt to engage in positive

behaviour and are less likely to receive future reinforcements.

However, hope as perceived by Snyder et al. (1991) is not only intrinsically a positive, affective state in the subjective present, but also increases the likelihood of actual improvement in quality of life through increasing intentions to act. Indeed, in their validation of the Hope Scale, hope was found to have unique variance in relation to coping and planning that was not explained by PA and NA, suggesting that hope has discriminant validity in relation to these constructs (Snyder et al., 1991).

2.5.3 The Relationship between Optimism and Hope

Optimism and pessimism have been defined as "generalised positive and negative outcome expectancies" and they represent relatively stable traits that have been shown to promote or discourage psychological and physical well-being (Chang, 1998: p. 1109). Moreover, a recent study cited in Miller and O'Leary (1993) highlights that optimists have better cell-mediated immunity than pessimists. Dispositional optimism is measured by the Life Orientation Test (LOT) and has been linked to coping, adaptation and health in studies with different populations (Boland & Cappeliez, 1997). It has been suggested that optimists chose more effective



problem-solving techniques with less harmful consequences as well as perceive stress in a different way to pessimistic people. However, relative to the theories of optimism, hope theory is somewhat more complex due to a focus on two components. According to Snyder (1995), while an optimist might believe that a solution will appear, the optimist lacks the pathways cognitions relevant to reaching such a solution. Therefore, the optimist may flounder when blocked from a goal whereas the high-hope individual should produce new pathways in such a scenario.

Another approach to optimism has also recently been expanded by Seligman and colleagues (Seligman, 1991). Nonetheless, Snyder (1995) believes that hope theory differs from this theory of learned optimism in that hope is conceptualised as a cognitive process involving how people link themselves to positive goals while optimism is basically envisaged as an "excuse-like strategy whereby people distance themselves from negative outcomes" (Snyder, 1995: p. 356).

2.6 The Relationship between Ways of Coping and Hope

Researchers hold that the amount of stress related to a specific event is a function of how that event is appraised by the individual. Beliefs about hope seem especially relevant to appraisals of stress because they pertain to whether things will eventually work out in the end and are also likely to affect the judgment of a potentially stressful encounter as a challenge or a threat (Folkman & Lazarus, 1985).

High hope individual's appraisal of situations in generally positive terms may pertain to

their assessment of stressful positions as challenging rather than threatening which in turn leads to different kinds of coping strategies. It has also been argued that problem-focused coping is more likely in situations that seem amenable to positive change. However, problem-focused coping is also more likely among persons who expect to see positive change (Scheier & Carver, 1987). Since hope has been operationalized in terms of generalized desire for good outcome, it follows

that hope should be associated with active attempts to deal with stressors in problem-focused ways.

Prediction with respect to emotion-focused coping is somewhat more ambiguous, partly because emotion-focused coping involves a broad range of rather different tendencies. There is evidence that people who have unfavourable expectancies focus on those expectancies and the subjective distress associated with them (Scheier & Carver, 1987). A reasonable extrapolation from this finding is that low hope may be associated with a tendency toward certain kinds of emotion-focused coping. Because it is often assumed that emotion-focused coping occurs in the service of problem-focused coping, however, it also seems plausible that high hope would be associated positively with the use of certain emotion-based strategies.

2.7 Exploring the Link between Coping Styles and Hope in Breast Cancer

Although not all breast cancer patients are struggling to or are unable to adapt, all have to cope with many demands. In the long term follow-up of cancer, many of the fears mentioned previously continue to burden women. It is therefore crucial to understand accurately in what way the quality of life of cancer patients is affected by coping strategies and how these can be improved (Heim, 1992).

According to Richardson (1992), little is known about how patients manage the illness of cancer and in particular what behaviours they develop and perform to cope with it. Moreover, in spite of the sizeable literature and the documentation of the psychosocial distress associated with the diagnosis and treatment of breast cancer, the quality of coping research is often poor (Heim, Augustiny, Blaser, Burki, Kuhne, Rothbuhler, Schaffner & Valach, 1987; Burgess et al., 1988; Somerfield & Curbow, 1992). Most criticism concerns methodology, secondly conceptualisation and thirdly, those studies that have explored coping styles are mostly interested in them as mediating factors in somatic outcome, usually expressed as relapse or

survival time (Buddeberg, Wolf, Sieber, Riehl-Emde, Bergant, Steiner, Landolt-

Ritter & Rocjter, 1991; Levy, Herberman, Lippman, D'Angelo & Lee, 1991). Thus, coping research in cancer has become somewhat one-sided by neglecting the effect of psychosocial responses to cancer on adjustment in a broader, psychological sense.

Furthermore, while stress and its harmful effects have been examined extensively, less systematic thought has been given to the ways in which humans react to stress positively (Monat & Lazarus, 1991). The human capacity to cope with demands is much greater than is usually assumed (Heim, 1992). Researchers, medical practitioners and the general public have shown a fascination with the question of whether the psyche, working through the immune system, can influence the biological course of cancer (Good, Good, Schaffer & Lind, 1990). The hope concept described by Snyder and colleagues (1991) has been related to positive appraisal among cancer patients and may predict a patient's psychological adjustment to cancer. Therefore, it appears to be the ideal variable to shatter the perpetuation of cancer's grim, hopeless image.



CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This chapter is made up of five sections. Within this introduction (3.1), the rationale of the research is presented. Thereafter the aims and hypotheses of the research are formally stated (3.2) followed by a brief description of the research procedure (3.3). The sample is then discussed (3.4). Finally, the chapter is concluded with a description of the different measurement instruments (3.5).

The theoretical overview raises a number of issues for further research. This study will develop the issue of coping based on Folkman and Lazarus' theory. The study will therefore explore characteristic ways of coping in response to the specific stressor,

long term follow-up of breast cancer treatment. An appraisal of breast cancer patient's perceptions regarding their coping styles may provide direction for further research. Firstly, this appraisal would increase our understanding of the contextual determinants of the selection of coping styles (Sommerfield & Curbow, 1992). Secondly, Folkman and Lazarus' theory assesses the mediating effects of coping on emotion. Since Gross' (1989) review of 18 studies supports the hypothesis that emotional expression may be involved in cancer onset and progression, using their theory may also provide valuable data on the needs of individual breast cancer patients for clinical interventions. Psychotherapy could be offered to those women who might be coping inadequately with the stress of breast cancer, which as suggested by Folkman and Lazarus (1988) affects one's emotional responses. Thirdly, Folkman and Lazarus' measure widens the to date limited measures of coping.

There have been numerous studies exploring psychological adaptation and other aspects of quality of life of patients in the early stages of cancer however, there is a



scarceness of information on long-term survivors and how they have coped and integrated cancer into their lives (Kurtz, Wyatt, Kurtz, 1995; Wyatt & Friedman, 1996; Heim, 1997). According to Stanton, Estes, Estes, Cameron, Danoff-Burg and Irving (1998) breast cancer survivors fear recurrence more than they feared losing a breast. Furthermore, less information is available on the long-term coping of the older patient with cancer which according to Kurtz et al. (1995: p. 254) is "distressing, in light of the fact that the vast majority of cancers occur in people over the age of 55". Advances in treatment have led to prolonged survival and thus, cancer is no longer merely an acute disease but rather a chronic disease for which long-term follow-up care is necessary (Ganz, 1993). According to Stanton and Snider (1993), patients show a remarkably rapid recovery from negative mood but experienced elevated fatigue and lack of vigour. They ask how long this lack of energy persists as patients confront long-term treatment.

Wyatt and Friedman (1996: p. 387), have highlighted the need to develop an understanding of the "uniqueness of the long-term female cancer survivor". In the studies to date, the spiritual dimension of survival has not been cited or proposed and these authors suggest that the bio-psycho-social framework be extended to include the domain of spirituality and the meaning of the illness for long-term survivors of cancer.

Furthermore, despite earlier work pointing to the effect of optimism on physical well-being (Scheier & Carver 1987), this aspect has not been investigated adequately. Scheier and Carver (1987) suggest that the effects of optimism may be partly due to the strategies that people use to cope with stress. Sommerfield and Curbow (1992) also note that personality factors should be included in studies with coping, since part of the relation between coping and adjustment may be attributable to personality. Hope and optimism share certain characteristics, however Snyder et al.'s (1991) concept of hope

is more goal-directed. They view hope as part of an individual's belief system and have related a hopeful assessment of one's ability to cope with cancer to better psychosocial adjustment. Therefore, using the hope

construct together with ways of coping may contribute to an understanding of the way in which breast cancer patients appraise their situation.

In conclusion, the increasing number of women treated for and surviving breast cancer, greater involvement of care and growing demand for patient, family and societal interaction in this process, has placed many demands on the medical community to identify and address psychological issues across the course of treatment (Rowland, 1998).

3.2 The Aims and The Hypotheses

Within the theoretical frameworks discussed in Chapter 2, this study will explore whether differences in hope correlate with the way breast cancer patients use coping strategies. More specifically the study aims to explore whether breast cancer patients in long term follow-up treatment:

- (a) view their condition as challenging or threatening,
- (b) utilise more emotion-focused coping or problem-focused coping or
- (c) are high or low in hope and how this relates to their ways of coping.

This study wishes therefore, to investigate the assumption that hope is a factor of importance to breast cancer patients. From these above objectives the study will endeavour to highlight the potential for identifying hope-fostering categories in the long term follow-up of treatment in women with breast cancer.

The research hypotheses are:

1. There will be a significant difference between subjects with high hope and low hope in terms of their appraisal of their condition.
2. (a) Subjects high in hope will be more likely to see their condition as challenging whereas,
(b) subjects low in hope will be more likely to see their condition as threatening.
3. (a) Subjects high in hope will use more problem-focused coping while,
(b) subjects low in hope will use more emotion-focused coping.
4. Women who have low hope and expectancies for negative outcomes as they approach long-term follow-ups may attempt to disengage while women high in hope are likely to cope through addressing the stressor and maintaining a positive

focus.

In their validation of the Hope Scale, Snyder et al. (1991) indicated that hope, negative affect and positive affect each accounted for unique variance in general self-reported well-being, coping and planning. However, there is some doubt over whether these constructs are indeed distinctive (Turton, 1993). Thus, a measure of positive and negative affect will be included to re-evaluate this claim in the context of long term follow-up of breast cancer treatment.

3.3 The Research Procedure

The subjects of this study met the inclusion criteria of surgery involving a lumpectomy or a mastectomy. Subjects were approached randomly at the Johannesburg Hospital breast clinic where they were attending a six monthly or yearly check-up. A main criteria for inclusion in the study was the ability to complete the form in English. Interviews took place in a vacant consultation room at the Johannesburg Hospital. While subjects were randomly approached in the waiting room, no suitable person was not included in the study hence, all people who met the inclusion criteria completed the study.

Each subject completed the self-report, structured psychological tests, which included the Ways of Coping Questionnaire (WCQ), the Hope Scale, the Positive and Negative Affect Scale (PANAS) and the Life Orientation Test - Revised (LOT-R) individually, followed by a brief semi-structured interview. This procedure was carried out between January and December 2000. The researcher described the



purpose of the study and explained to subjects how the questionnaires should be completed. Participation in the study was voluntary and a signed consent form was mandatory, evidencing the participant's agreement to take part in the study (see Appendix A).

3.4 The Sample

All subjects were in remission at the time of the study, with remission time ranging from around 1 year to 18 years. The total sample size was 24, which consisted of two groups: 79.8% (n=17) and 29.2% (n=7), mastectomy and lumpectomy respectively. The sample was mostly white (n=22) and their home language either English, 91.7 % (n=22) or Afrikaans, 8.3% (n=2). The age of the women ranged from 42 to 80 years old with a mean age of 62.04 years. Educational standard attained was varied, with all the women having some high school, most having matriculated 79.2% (n=19) and the remaining having attended either college 12,5% (n=3) or university 20.8% (n=5). In terms of work, 16,7% (n=4) work fulltime, 20.8% (n=5) work part time and 62.5% (n=15) are currently

not working. Marriage status data indicated that 8.3% (n=2) of the women are single, 41.7% (n=10) of the women are married, 25% (n=6) are divorced, 8.3% (n=2) are separated and 16.7% (n=4) are widowed. Approximately two thirds of the women, 66.7% (n=16) have children.

3.5 Materials - The Questionnaire

3.5.1 Biographic/Personal Information/Interview

The semi-structured interview used in the study (see Appendix A) was partly derived from a short version of the Bernese Coping Modes (Heim, 1991) an interviewer-rating instrument developed for use in long-term research in cancer. This instrument has satisfactory construct properties and inter-rater reliability (Heim, 1991) and is

useful for accessing qualitative data on ways of coping. Thus, the answers elicited expanded on those coping scales assessed by the Ways of Coping Questionnaire. The question on Hormone Replacement Therapy (HRT) is included in this interview at the request of the surgeon based on his own literature review. Biographical and personal information was also elicited in the interview. It was also felt in accordance with Hughes (1987), that a personal interview instead of questionnaires would more likely elicit the cancer patient's true state of mind.

3.5.2 Ways of Coping Questionnaire (WCQ) (Folkman & Lazarus, 1985)

This questionnaire is an assessment of coping methods developed by Folkman and Lazarus and has two parts. A 5-point Likert scale (0=not at all, 4=a great deal) that evaluates 15 emotions, which are grouped into their appraisal categories:

Anticipatory: Threat emotions - worried, fearful, anxious
Challenge emotions - confident, hopeful, eager
Outcome: Harm emotions - angry, sad, disappointed, guilty, disgusted
Benefit emotions - exhilarated, pleased, happy, relieved.

The subjects were asked to recall their emotions in relation to their long term follow-up of breast cancer treatment.

Subjects also completed a 4-point Likert scale, which measures a broad range of cognitive and behavioural strategies that people use to manage internal and/or external demands in a stressful situation. These strategies are then grouped into emotion-focused coping and problem-focused solving. The present research specifically focuses on eight coping scales derived from the most recent factor analysis by Folkman and colleagues (1986):

- (a) Confrontive Coping describes aggressive efforts to alter the situation (e.g. "stood my ground and fought for what I wanted")
- (b) Distancing describes efforts to detach oneself (e.g. "went on as if nothing has happened")

- (c) Self-Control describes efforts to regulate one's feelings and actions (e.g. "I tried to keep my feelings to myself")
- (d) Seeking Social Support describes efforts to seek informational and emotional support (e.g. "accepted sympathy and understanding from someone")

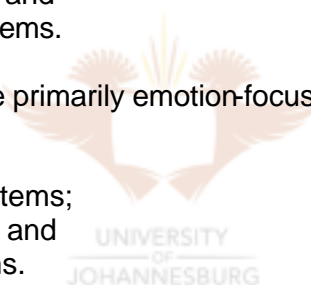
- (e) Accepting Responsibility acknowledges one's own role in the problem (e.g. "criticized or lectured myself")
- (f) Escape-Avoidance describes wishful thinking and behavioural efforts to escape (e.g. "wished that the situation would go away or somehow by over with")
- (g) Planful Problem-Solving describes deliberate problem-focused efforts to alter the situation coupled with an analytic approach to solving the problem (e.g. "I made a plan of action and followed it")
- (h) Positive Reappraisal describes efforts to create positive meaning by focusing on personal growth and includes a religious tone (e.g. "changed or grew as a person in a good way").

Two of the scales are primarily problem-focused:

- (i) Confrontive coping, 6 items and
- (ii) Planful problem-solving, 6 items.

Five additional scales measure primarily emotion-focused coping:

- (i) Distancing, 6 items;
- (ii) Self-Controlling, 7 items;
- (iii) Accepting responsibility, 4 items;
- (iv) Escape-avoidance, 8 items and
- (v) Positive reappraisal, 7 items.



Finally, one scale measures mixed problem and emotion-focused coping:
Seeking social support, 6 items.

It is, however, important to note that the designation of a scale as problem or emotion focused is dependent on the psychological context in which it occurs (Lazarus & Folkman, 1984) and thus, problem focused coping can sometimes be used to regulate emotions and an emotion focused strategy can have a problem focused function.

Validity findings for the WCQ are mostly general and there are no specific results and levels of significance. Nonetheless, the tests main function is to inventory people's responses to stress in their life experiences (Hess & Conger, 1992). Moreover, because it is not a "test" in the conventional sense, Folkman and Lazarus view test-retest estimates as inappropriate and chose to focus on internal consistency estimates such as Cronbach's alpha.

The WCQ scale is suitable since it is not limiting and assesses actual coping processes related to Folkman and Lazarus' theory of coping instead of just coping traits. It describes a wide range of cognitive and behavioural strategies which may be used in response to a specific stressful circumstance. Subjects were asked to ponder their long term follow-up treatment for their condition (breast cancer) before responding to the items.

3.5.3 The Hope Scale (Snyder et al., 1991)

On the basis of the theoretical model of hope described in Chapter 2, Snyder et al. (1991) developed a dispositional self-report scale, the Hope Scale. The scale contains eight hope items and four filler items. The content of the four agency items tap a sense of successful determination in relation to the person's goals generally. The four pathways items tap people's cognitive appraisals of their ability to generate the resources for reaching goals.

In an interview study exploring whether Hope Scale scores were predictive of actual agency and pathways cognitions and behaviours in six life arenas, results provided strong support for the initial hypothesis that higher hope persons would report more agency and a greater number of pathways in the goal-directed activities of their lives (Snyder et al., 1991) Thus, as suggested by Snyder et al. (1991), it is an important instrument for understanding how people appraise their goals in several different life situations. Furthermore, they suggest that individual difference measures such as the Hope Scale may help in the clarification of the personality factors that operate in the treatment of cancer (Snyder et al., 199).



The respondent is asked to indicate on a 4-point scale ranging from definitely false to definitely true, the number which best describes them. The model assumes that hope is a consistent personality trait across situations and time. Therefore, higher hope people should sustain their agency and pathways behaviour and conversely, lower hope people are more likely to decrease their agency and pathways in the face of increasingly stronger goal obstructions.

The internal reliability of the scale seems adequate for research purposes (Cronbach's alpha = .76), as does its 10-week test-retest reliability of 0.82. Findings bearing on the convergent and discriminant validity of the Hope Scale have also been positive (Snyder et al., 1991 & Snyder, 1995). In a more recent study (Snyder, 1995) reported that higher hope people exhibit more mental energy and pathways for their goals when there are obstructions to those goals suggesting that the scale has construct validity.

Furthermore, the scores on the Hope Scale predict coping, well-being and reported psychological health responses "significantly beyond projections related to measures of anxiety, positive and negative affectivity, optimism, positive outcome expectancies and locus of control" (Snyder, 1995: p. 357).

3.5.4 Brief Measures of Positive and Negative Affect (PANAS) (Watson et al., 1988)

In their validation of The Hope Scale, Snyder et al. (1991) incorporated the PANAS as a measure of discriminant validity. Their results suggested that hope, negative affect (NA) and positive affect (PA) each account for unique variance in overall self-reported well-being. Furthermore, they concluded that PA and NA do not serve as viable alternative explanations for the obtained relations between Hope Scale scores and active coping and planning. The inclusion of this scale is warranted due to scepticism over these claims.

The PANAS is a 20-item scale, 10 items measuring PA and 10 items measuring NA. Subjects were instructed to "respond as they feel generally" in order to assess PA

and NA as general personality traits. These 10-item scales are internally consistent and have excellent convergent and discriminant correlations with lengthier measures of the underlying mood factors. They also demonstrate appropriate stability over a 2-month time period.

3.5.6 The Revised Life Orientation Test (LOT- R)

The Life Orientation Test (LOT) was first developed by Scheier and Carver in 1985 to measure the construct of dispositional optimism which was conceptualized as positive outcome expectancies having important health implications. Recent research using the LOT has shown convergent data that highlights the beneficial health effects related to the construct of optimism and high scores on the LOT have been correlated with good health results in breast cancer patients (Lai, Cheung, Lee & Yu, 1998). The LOT-R is a revised test that appears to be valid in terms of its content with the two items that measure coping rather than outcome expectancies having being deleted. It has been found to correlate .95 with the original test and it demonstrates convergent and discriminant validity as well as a coefficient of internal consistency of .70 and a test-retest reliability of .66. (Lai et al., 1998; Chang, 1998; Scheier, Carver & Bridges, 1994).

In their assessment of the Life Orientation test, Hjelle, Bellongia and Nesser (1996) report a reliability coefficient for the scale of .76 and a temporal reliability across a 13 week interval of .72. Evidence of convergent validity was demonstrated by the fact that scores on this test were correlated in the expected direction with theoretically similar constructs. Furthermore, construct validity was demonstrated with correlations in the predicted direction with indices of physical and psychological well-being and relatively unrelated to measures of social desirability.

The LOT-R is a 10-item scale, in which respondents are asked to indicate the extent to which they agree with statements like "I hardly ever expect things to go my way". Subjects are instructed to be as accurate and honest as possible and to try not to let their answers to one question influence their answers to the other questions.



CHAPTER 4: STATISTICAL RESULTS

4.1 Introduction

Women in long term breast cancer treatment are reminded at each check-up that they are in remission from an illness that has claimed many lives. Although there has been much research on how women cope following their initial diagnosis, there has not been much research conducted in South Africa particularly with regard to women in long term remission.

This research has been conducted to ascertain the way in which women appraise their treatment. It is a quantitative study whereby the impact of personality variables are assessed in relation to appraisal and ways of coping with the stress inherent in women in long term follow-up treatment for breast cancer. The personality variables hope, positive affectivity and optimism will be explored in

order to flesh out the difficulties surrounding the conceptualisations of these positive attitude states. Furthermore, additional variables, such as trauma, that have been suggested as important in research with cancer, will be examined.

4.2 Analysis of the Ways of Coping Questionnaire (WCQ)

Frequency analysis showed that the distribution of the WCQ scores is quite uneven. Some coping modes were frequently employed and others more rarely. Over 70% of women identified 6 of the 67 ways of coping responses they used "quite a bit" or "a great deal". These items reflected distancing, planful-problem solving, positive reappraisal and control of emotional expression (see Table 1(a)). In addition, there were a number of ways of coping which were almost never used. Over 70% of subjects identified 20 of the 67 items which they never used. These included strategies of seeking professional help, confrontive coping, blaming of self or others, self-controlling behaviour, planful problem-solving and escape-avoidance (see Table 1(b)).

Table 1 Frequency of coping responses used by women in long term follow-up of breast cancer according to the WCQ

(a) Items to which > 70% of women responded "quite a bit" or "a great deal"

| WCQ Item | Frequency % |
|---|-------------|
| "Tried to look on the bright side of things" | 89.3% |
| "Rediscovered what is important in life" | 75.0% |
| "I reminded myself how much worse things could be" | 75.0% |
| "I prayed" | 70.8% |
| "Just concentrated on what I had to do next, the next step" | 70.8% |
| "Accepted it, since nothing could be done" | 70.8% |

(b) Items to which > 70% of women responded "not used"

| WCQ Item | Frequency % |
|--|-------------|
| "Took a big chance or did something very risky" | 100% |
| "I expressed anger to the person(s) who caused the problems" | 95.8% |
| "Tried to get the person responsible to change his or her mind" | 91.6% |
| "I apologized or did something to make up" | 91.6% |
| "Avoided being with people in general" | 91.6% |
| "Took it out on other people" | 91.6% |
| "Drew on my past experiences; I was in a similar situation before" | 91.6% |
| "Tried to make myself feel better by eating, drinking, smoking, using drugs or medication etc. | 87.5% |
| "Refused to believe that it had happened" | 87.5% |

| | |
|---|-------|
| "I did something which I didn't think would work, but at least I was doing something" | 79.2% |
| "Change something so things would turn out all right" | 79.2% |
| "I daydreamed or imagined a better time or place than the one I was in" | 79.2% |
| "Had fantasise or wishes about how things might turn out" | 75.0% |
| "Criticized or lectured myself" | 70.8% |
| "I got professional help" | 70.8% |
| "I waited to see what would happen before doing anything" | 70.8% |
| "Realized I brought the problem on myself" | 70.8% |
| "I tried not to act too hastily or follow my first hunch" | 70.8% |
| "I made a promise to myself that things would be different next time" | 70.8% |
| "I thought about how a person I admire would handle this experience" | 70.8% |

Taking into account the small sample size, a Factor Analysis was not performed on the data. Instead, the present research specifically focuses on eight coping scales derived from the most recent factor analysis by Folkman and colleagues (1986) (see p. 28). However, a K-means cluster analysis was performed in order to identify relatively homogeneous groups of low hope women and high hope women. These two clusters were based on scores from the Hope Scale as well as the LOT-R. Group 1 refers to women who were clustered according to low hope and low optimism while Group 2 includes the women who were clustered according to high hope and high optimism (see Table 2). Table 3 shows the means of all the variables for the whole group as well as for group 1 and group 2.

Table 2 Number of Women per Group

| Group | Frequency | Percentage |
|-------|-----------|------------|
| (1) | 13 | 54.2 |
| (2) | 11 | 45.8 |
| Total | 24 | 100.0 |

Table 3 Descriptive statistics for the WOC scales, Hope, PA/NA and Optimism

| Variables | Total Sample | | Group 1 | | Group 2 | |
|-------------------------|--------------|------|---------|------|---------|------|
| | X | S | X | S | X | S |
| Threat Appraisal | 2.21 | 2.83 | 2.46 | 3.33 | 1.91 | 2.21 |
| Challenge Appraisal | 6.83 | 3.37 | 6.31 | 3.71 | 7.45 | 2.98 |
| Harm Appraisal | 2.25 | 3.30 | 2.92 | 3.99 | 1.45 | 2.16 |
| Benefit Appraisal | 8.83 | 4.86 | 7.85 | 4.62 | 10.0 | 5.10 |
| Confrontive Coping | 3.04 | 3.28 | 2.92 | 4.05 | 3.18 | 2.23 |
| Distancing | 9.33 | 4.21 | 8.62 | 3.80 | 10.18 | 4.69 |
| Self-Control | 5.58 | 3.35 | 6.23 | 3.47 | 4.82 | 3.19 |
| Social Support | 7.04 | 5.44 | 6.62 | 5.77 | 7.55 | 5.26 |
| Acceptance | 1.75 | 2.47 | 2.08 | 2.78 | 1.36 | 2.11 |
| Escape-Avoidance | 3.13 | 3.92 | 3.46 | 3.71 | 2.73 | 4.29 |
| Planful Problem Solving | 6.08 | 3.54 | 5.77 | 2.71 | 6.45 | 4.44 |
| Positive Reappraisal | 10.92 | 4.41 | 9.85 | 5.05 | 12.18 | 3.31 |
| Hope Pathways | 13.13 | 2.29 | 12.31 | 2.50 | 14.09 | 1.64 |
| Hope Agency | 13.08 | 1.91 | 12.46 | 1.76 | 13.82 | 1.89 |
| Hope Overall | 26.21 | 3.71 | 24.77 | 3.61 | 27.91 | 3.18 |
| Positive Affectivity | 38.63 | 6.96 | 36.54 | 4.43 | 41.09 | 8.70 |
| Negative Affectivity | 19.08 | 7.35 | 21.38 | 8.14 | 16.36 | 5.46 |
| Optimism | 16.33 | 4.99 | 12.54 | 2.73 | 20.82 | 2.75 |

According to this table, it is evident that for the whole group as well as the sub groups, the mean scores for challenge and benefit appraisal are higher than those for threat and harm appraisals. Furthermore, all the groups use predominantly emotional focused coping in the form of distancing, self-control, social support as well as positive reappraisal. This last form of coping is especially utilized. The means for planful problem solving suggest that this problem focused coping method is used more often than it's sister scale, confrontive coping.

From the correlation matrix of coping styles seen in Table 4 (a), no distinctive pattern differentiating between emotion and problem focused coping can be seen for the whole group. Rather, coping strategies, both emotion and problem focused, were correlated with one another. Nonetheless, the most significant correlations ($p < .01$) were between confrontive coping and social support, confrontive coping and accepting responsibility, confrontive coping and planful problem solving, confrontive coping and positive reappraisal, self-control and escape avoidance, seeking social support and accepting responsibility, seeking social support and positive reappraisal, accepting responsibility and escape avoidance and planful problem solving and positive reappraisal. As with the whole group, for Group 1, both emotion and problem focused coping were correlated with one another. However, the most significant correlations ($p < .01$) included more escape-avoidance scales. The correlations were between confrontive coping and accepting responsibility, social support and escape avoidance, accepting responsibility and escape avoidance and escape avoidance and planful problem solving (see Table 4(b)). For the high hope group, there was a meaningful correlation ($p < .01$) between social support and accepting responsibility and positive reappraisal and confrontive coping ($p < .05$)

(see Table 4(c)).

Table 4(a) Correlations between the scales of the WCQ for the whole group

| Index | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-----------------------------|---|------|------|--------|--------|--------|--------|--------|
| 1. Confrontive Coping | 1 | .294 | .385 | .560** | .597** | .490* | .658** | .535** |
| 2. Distancing | | 1 | -.55 | -.140 | .201 | .045 | .501* | .114 |
| 3. Self-Control | | | 1 | .193 | .444* | .532** | .391 | .245 |
| 4. Seeking Social Support | | | | 1 | .623** | .424* | .290 | .517** |
| 5. Accepting Responsibility | | | | | 1 | .601** | .451* | .261 |
| 6. Escape-avoidance | | | | | | 1 | .538 | .290 |
| 7. Planful-problem Solving | | | | | | | 1 | .543** |
| 8. Positive Reappraisal | | | | | | | | 1 |

* p < .05 ** p < .01

Table 4(b) Correlations between the scales of the WCQ for Group 1

| Index | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-----------------------------|---|------|------|------|--------|--------|--------|-------|
| 1. Confrontive Coping | 1 | .475 | .387 | .527 | .812** | .692** | .610* | .323 |
| 2. Distancing | | 1 | .420 | .092 | .533 | .218 | .519 | .310 |
| 3. Self-Control | | | 1 | .264 | .747** | .729** | .531 | .480 |
| 4. Seeking Social Support | | | | 1 | .593** | .719** | .632* | .592* |
| 5. Accepting Responsibility | | | | | 1 | .833** | .795* | .506 |
| 6. Escape-avoidance | | | | | | 1 | .709** | .518 |
| 7. Planful-problem Solving | | | | | | | 1 | .605* |
| 8. Positive Reappraisal | | | | | | | | 1 |

* p < .05 ** p < .01

Table 4(c) Correlations between the scales of the WCQ for Group 2

| Index | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-----------------------------|---|-------|-------|-------|--------|-------|-------|-------|
| 1. Confrontive Coping | 1 | -.033 | .527 | .526 | .475 | .139 | .573 | .611* |
| 2. Distancing | | 1 | -.375 | -.499 | .021 | .082 | .513 | -.284 |
| 3. Self-Control | | | 1 | .267 | .063 | .041 | .196 | .279 |
| 4. Seeking Social Support | | | | 1 | .716** | -.060 | -.141 | .410 |
| 5. Accepting Responsibility | | | | | 1 | .072 | .101 | .138 |
| 6. Escape-avoidance | | | | | | 1 | -.109 | .029 |
| 7. Planful-problem Solving | | | | | | | 1 | .419 |

----- * p < .05 ** p < .01

4.3 The Variables Hope, PA/NA and Coping Styles

Spearman moment correlations were calculated between the variables hope, positive affectivity, negative affectivity, optimism and coping.

4.3.1 The Relationship between Hope Pathways, Hope Agency, Hope Overall and Coping Styles

Hope was divided into two components as conceptualized by Snyder et al. (1991). Spearman Moment Correlations were thus calculated between hope pathways, hope agency and an overall hope score combining these two scores and the coping scales (see Table 5(a); 5(b) & 5(c)).

Table 5 (a) Correlations between Hope Agency, Hope Pathway, Hope and WCQ for the Whole group

| Coping Scales | Hope Category | | |
|--------------------------|---------------|--------------|--------------|
| | Hope Agency | Hope Pathway | Hope Overall |
| Confrontive coping | 0.53 | .231 | .195 |
| Distancing | .415* | .441* | .453* |
| Self-Control | -.006 | .070 | .081 |
| Seeking Social Support | -.044 | -.025 | .022 |
| Accepting Responsibility | .078 | .137 | .179 |
| Escape-avoidance | -.076 | .184 | .119 |
| Planful-problem Solving | .370 | .333 | .415* |
| Positive Reappraisal | .320 | .332 | .394 |

* p < .05

Table 5 (b) Correlations between Hope Agency, Hope Pathway, Hope and WCQ for the Group 1

| Coping Scales | Hope Category | | |
|------------------------|---------------|--------------|--------------|
| | Hope Agency | Hope Pathway | Hope Overall |
| Confrontive coping | -.250 | .055 | -.043 |
| Distancing | .415 | .330 | .398 |
| Self-Control | .419 | .521 | .578* |
| Seeking Social Support | .087 | .145 | .248 |

| | | | |
|--------------------------|------|------|------|
| Accepting Responsibility | .226 | .345 | .399 |
| Escape-avoidance | .082 | .137 | .219 |
| Planful-problem Solving | .385 | .254 | .448 |
| Positive Reappraisal | .373 | .415 | .537 |

* $p < .05$

Table 5 (c) Correlations between Hope Agency, Hope Pathway, Hope and WCQ for the Group 2

| Coping Scales | Hope Category | | |
|--------------------------|---------------|--------------|--------------|
| | Hope Agency | Hope Pathway | Hope Overall |
| Confrontive coping | -.088 | .287 | .049 |
| Distancing | .384 | .420 | .407 |
| Self-Control | -.436 | -.211 | -.332 |
| Seeking Social Support | .458 | -.398 | -.485 |
| Accepting Responsibility | -.122 | -.033 | -.085 |
| Escape-avoidance | -.167 | .440 | .063 |
| Planful-problem Solving | .313 | .379 | .329 |
| Positive Reappraisal | -.026 | .112 | -.016 |

For the whole group, there was a significant positive correlation between the pathway and agency component as well as hope overall and the emotion focused coping skill, distancing ($p < .05$). Furthermore, hope overall was positively correlated with the problem focused coping method of planful problem solving ($p < .05$). The implication of these results is that 16% of variation in certain coping styles of subjects can be understood by the variation in hope.

For group 1, there was a positive correlation between self-control and hope overall while for group 2, there were no significant correlations between hope agency, hope pathways and hope and the different coping styles.

4.3.2 The relationship between Hope, Positive Affect (PA), Negative Affect (NA), Optimism and Coping

For the whole group, PA was correlated ($p < .05$) with the same coping scales as in the case of hope and ways of coping, mainly, distancing and planful problem solving. NA was significantly positively correlated with self-control ($p < .01$), accepting responsibility ($p < .05$) and escape-avoidance ($p < .01$) (see Table 6(a)). For group 1, PA was significantly correlated with planful problem solving and NA was correlated with the same coping scales as the whole group with the addition of the coping method positive reappraisal (see Table 6(b)). For group 2, the only significant correlation was a negative one between optimism and escape avoidance (see Table 6(c)). It is worthwhile noting that optimism was not positively correlated with any of the coping scales for any of the different groups.

Table 6(a) Correlations between PA, NA, Optimism and WCQ for the whole group

| Coping Scales | Positive Affectivity | Negative Affectivity | Optimism |
|--------------------------|----------------------|----------------------|----------|
| Confrontive coping | .267 | .259 | .200 |
| Distancing | .408* | -.146 | .375 |
| Self-Control | -.047 | .715** | -.240 |
| Seeking Social Support | -.009 | .273 | .024 |
| Accepting Responsibility | .213 | .428* | -.106 |
| Escape-avoidance | -.189 | .648* | -.328 |
| Planful-problem Solving | .484* | .383 | .050 |
| Positive Reappraisal | .373 | .373 | .206 |

* $p < .05$ ** $p < .01$

Table 6(b) Correlations between PA, NA, Optimism and WCQ for group 1

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| Coping Scales | Positive Affectivity | Negative Affectivity | Optimism |
|--------------------------|----------------------|----------------------|----------|
| Confrontive coping | .059 | .377 | .294 |
| Distancing | .527 | .211 | .343 |
| Self-Control | .340 | .794** | -.080 |
| Seeking Social Support | -.138 | .551 | -.211 |
| Accepting Responsibility | .304 | .688** | -.012 |
| Escape-avoidance | .041 | .735** | -.190 |
| Planful-problem Solving | .566* | .549 | -.028 |
| Positive Reappraisal | .364 | .779* | .117 |

* $p < .05$ ** $p < .01$

Table 6(c) Correlations between PA, NA, Optimism and WCQ for group 2

| Coping Scales | Positive | Negative | Optimism |
|---------------|----------|----------|----------|
|---------------|----------|----------|----------|

| | Affectivity | Affectivity | |
|--------------------------|-------------|-------------|--------|
| Confrontive coping | .279 | .264 | -.330 |
| Distancing | .260 | -.389 | .333 |
| Self-Control | -.267 | .494 | -.312 |
| Seeking Social Support | -.108 | -.012 | -.131 |
| Accepting Responsibility | .127 | .011 | .076 |
| Escape-avoidance | -.425 | .285 | -.619* |
| Planful-problem Solving | .600 | .198 | -.040 |
| Positive Reappraisal | .292 | .130 | -.540 |

* $p < .05$

An important finding was the significant relationship between PA and hope overall ($p < .01$) (see Table 7(a)), suggesting that they both measure aspects of the same construct. This was true for the whole group but not for group 1 and group 2. NA was not significantly negatively correlated with hope (see Table 7(a); (b) & (c)). Furthermore, optimism and hope were not significantly correlated for any of the groups.



Table 7(a) Correlations between PA, NA, Optimism and Hope for the whole group

| | Hope Category | | |
|-----------------|---------------|---------------|--------------|
| | Hope Agency | Hope Pathways | Hope Overall |
| Positive Affect | .589* | .428* | .565** |
| Negative Affect | .041 | .191 | .186 |
| Optimism | .184 | .346 | .289 |

* $p < .05$ * $P < .01$

Table 7(b) Correlations between PA, NA, Optimism and Hope for group 1

| | Hope Category | | |
|-----------------|---------------|---------------|--------------|
| | Hope Agency | Hope Pathways | Hope Overall |
| Positive Affect | .507 | .133 | .366 |

| | | | |
|-----------------|-------|------|-------|
| Negative Affect | .350 | .473 | .550 |
| Optimism | -.375 | .268 | -.028 |

Table 7(c) Correlations between PA, NA, Optimism and Hope for group 2

| | Hope Category | | |
|-----------------|---------------|---------------|--------------|
| | Hope Agency | Hope Pathways | Hope Overall |
| Positive Affect | .451 | .367 | .441 |
| Negative Affect | -.164 | .162 | -.005 |
| Optimism | -.009 | -.403 | -.162 |

4.4 The Relationship Between Appraisals, Hope and Coping

There were significant negative correlations between threat and challenge appraisals ($p < .01$) but not between harm and benefit appraisals. Furthermore, there were significant positive correlations between challenge and benefit as well as threat and harm appraisals ($p < .01$) (see Table 8(a)). For group 1 the results were similar however, the positive correlation between harm and threat was not found (see Table 8 (b)). Lastly, both harm and threat ($p < .05$) and challenge and benefit appraisals ($p < .01$) were significantly correlated for group 2 (see Table 8 (c)).

Table 8 (a) Correlations between Appraisal Categories for the whole group

| Index | 1 | 2 | 3 | 4 |
|-----------|--------|--------|-------|-------|
| Threat | 1.000 | | | |
| Challenge | .555** | 1.000 | | |
| Harm | .584** | -.168 | 1.000 | |
| Benefit | -.403 | .862** | -.262 | 1.000 |

** $p < 0.1$

Table 8 (b) Correlations between Appraisal Categories for group 1

| Index | 1 | 2 | 3 | 4 |
|-----------|--------|--------|-------|-------|
| Threat | 1.000 | | | |
| Challenge | -.663* | 1.000 | | |
| Harm | .536 | -.083 | 1.000 | |
| Benefit | -.417 | .772** | -.192 | 1.000 |

* p < .05 ** p < .01

Table 8 (c) Correlations between Appraisal Categories for group 2

| Index | 1 | 2 | 3 | 4 |
|-----------|-------|--------|-------|-------|
| Threat | 1.000 | | | |
| Challenge | -.315 | 1.000 | | |
| Harm | .632* | -.259 | 1.000 | |
| Benefit | -.311 | .988** | -.263 | 1.000 |

* p < .05 ** p < .01

4.4.1 Threat appraisals

Very few of the respondents reported high threat appraisals (see Table 3) with regards their long term follow-up of breast cancer treatment. Furthermore, threat appraisals were not significantly correlated with low hope for the different groups (see Table 9(a); 9(b) & 9(c)). However, threat was correlated significantly with confrontive coping, seeking social support and escape avoidance for the whole group (see Table 10(a)). Furthermore, threat was correlated significantly with this latter coping style for group 1 (see Table 10(b)). For group 2, threat was correlated with confrontive coping (see Table 10 (c)).

4.4.2 Challenge Appraisals

The means for challenge appraisals were high (see Table 3), suggesting that most subjects anticipate the potential for growth and mastery in their long term follow-up of breast cancer treatment. Challenge appraisals were correlated with hope agency, hope overall and PA for the whole group and group 1 but not for the high hope group (see Tables 9(a); 9(b) & 9(c)). Furthermore, challenge appraisals were positively significantly correlated with the coping scale, positive reappraisal for the whole group (see Table 10(a)) and negatively significantly correlated with escape-avoidance for group2 (see Table 10(c)). There were no significant correlations between challenge appraisals and the scales of the WCQ for group 1 (see Table 10(b)).

Table 9 (a) Correlation matrices between appraisal categories, hope, affect and optimism for the whole group

| Appraisal | Hope Category | | | Affect | | Optimism |
|-----------|---------------|---------|---------|--------|-------|----------|
| | Agency | Pathway | Overall | PA | NA | |
| Threat | -.364 | -.241 | -.281 | -.174 | .366 | -.223 |
| Challenge | .553** | .353 | .496* | .656** | -.108 | .261 |
| Harm | .042 | -.008 | .057 | .132 | .570* | -.384 |

| | | | | | | |
|---------|--------|------|-------|--------|-------|-------|
| Benefit | .528** | .363 | .495* | .748** | -.212 | .424* |
|---------|--------|------|-------|--------|-------|-------|

* $p < .05$ ** $p < .01$

Table 9 (b) Correlation matrices between appraisal categories, hope, affect and optimism for group 1

| Appraisal | Hope Category | | | Affect | | Optimism |
|-----------|---------------|---------|---------|--------|------|----------|
| | Agency | Pathway | Overall | PA | NA | |
| Threat | -.491 | -.348 | -.363 | -.236 | .197 | -.274 |
| Challenge | .640* | .461 | .610* | .561* | .308 | .042 |
| Harm | .082 | -.186 | -.022 | .243 | .526 | -.494 |
| Benefit | .574* | .420 | .583* | .649* | .294 | .166 |

* $p < .05$



Table 9 (c) Correlation matrices between appraisal categories, hope, affect and optimism for group 2

| Appraisal | Hope Category | | | Affect | | Optimism |
|-----------|---------------|---------|---------|--------|-------|----------|
| | Agency | Pathway | Overall | PA | NA | |
| Threat | -.372 | .005 | -.243 | -.068 | .667* | -.425 |
| Challenge | .343 | .022 | .221 | .501 | -.553 | .301 |
| Harm | -.003 | .499 | .228 | .250 | .633* | -.293 |
| Benefit | .299 | -.036 | .160 | .542 | -.559 | .356 |

* $p < .05$

4.4.3 Harm Appraisals

Harm appraisals were closely related to threat appraisals and similarly very few harm appraisals were noted (see Table 3). There were no significant correlations between harm appraisals and hope and PA. However, harm appraisals were significantly correlated with NA for both the whole group and the high hope group (see Table 9(a) & 9(c)). Moreover, harm appraisals were statistically significantly correlated with many of the coping scales for the whole group, mainly confrontive

coping, self-control, accepting responsibility and escape-avoidance. However, it is important to mention that the highest correlations were between harm appraisals and the emotion focused styles of self-control and escape avoidance (see Table 10(a)). Group 1 had similar correlations except that the problem focused coping style, confrontive coping was not significantly correlated with harm appraisals (see Table 10(b)). Lastly, for group 2 there was a significant correlation between harm appraisals and confrontive coping (see Table 10(c)).

Table 10(a) Correlations between appraisals and WCQ for the whole group

| Coping Scales | Appraisals | | | |
|--------------------------|------------|-----------|--------|---------|
| | Threat | Challenge | Harm | Benefit |
| Confrontive Coping | .409* | .057 | .488* | .310 |
| Distancing | -.301 | .334 | -.065 | -.139 |
| Self-Control | .396 | -.071 | .527** | -.010 |
| Seeking Social Support | .430* | .054 | .216 | .000 |
| Accepting Responsibility | .315 | .103 | .451* | -.396 |
| Escape-Avoidance | .512* | -.340 | .646** | .271 |
| Planful-problem solving | .273 | .281 | .368 | .420* |
| Positive Reappraisal | -.016 | .454* | .107 | .363 |

* $p < .05$ ** $p < .01$



Table 10(b) Correlations between appraisals and WCQ for group 1

| Coping Scales | Appraisals | | | |
|--------------------------|------------|-----------|--------|---------|
| | Threat | Challenge | Harm | Benefit |
| Confrontive Coping | .256 | -.190 | .524 | -.361 |
| Distancing | -.332 | .319 | .067 | .210 |
| Self-Control | .165 | .171 | .604* | .233 |
| Seeking Social Support | .439 | -.051 | .359 | -.157 |
| Accepting Responsibility | .339 | -.022 | .672* | -.089 |
| Escape-Avoidance | .592* | -.147 | .765** | -.111 |
| Planful-problem solving | .275 | .271 | .529 | .303* |
| Positive Reappraisal | -.089 | .486 | .192 | .508 |

* $p < .05$ ** $p < .01$

Table 10(c) Correlations between appraisals and WCQ for group 2

| Coping Scales | Appraisals | | | |
|--------------------------|------------|-----------|-------|---------|
| | Threat | Challenge | Harm | Benefit |
| Confrontive Coping | .642* | .341 | .609* | .309 |
| Distancing | -.289 | .205 | -.176 | .199 |
| Self-Control | .585 | -.086 | .300 | -.138 |
| Seeking Social Support | .480 | .265 | .108 | .256 |
| Accepting Responsibility | .324 | .264 | .132 | .205 |
| Escape-Avoidance | .288 | -.649* | .378 | -.699* |
| Planful-problem solving | .273 | .344 | .209 | .347 |
| Positive Reappraisal | .190 | .393 | .108 | .380 |

* $p < .05$

4.4.4 Benefit Appraisals

Most of the women in the sample reported high benefit appraisals (see Table 3) indicating the enormous advantages which women believe their experience has incurred for them. Benefit appraisals were correlated with hope agency, hope overall, PA and optimism (see Table 9(a)) for the whole group. Group 1 had these same significant correlations with the exception of optimism (see Table 9(b)) while for group 2 there were no significant correlations between benefit appraisals and hope, PA/NA and optimism (see Table 9(c)). The only coping scale correlated with benefit appraisals was planful problem solving for the whole group and group 1 (see Table 10(a) & 10(b)). Benefit appraisals were negatively correlated with the coping skill escape-avoidance for group 2 (see Table 10(c)).

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4.5 The relationship between hope, affectivity, optimism and coping across group 1 and group 2

Mann Whitney U T-Tests were conducted to determine the relationship between different variables, hope, affectivity and coping between the two groups consisting of low hope and high hope women. Table 11 highlights that there were only significant differences with the variables hope overall and optimism. Thus, there is a significant difference between group 1 ($x =$) and group 2 ($x =$) for pathways as well as a significant difference between group 1 ($x =$) and group 2 ($x =$) for PA. However, it is worthwhile commenting on the variables hope overall and optimism in that they were very close to being significant (see Table 11).

| | Mann-Whitney U | Z | Exact significance |
|-----------|----------------|-------|--------------------|
| Threat | 68.500 | -.186 | .865 |
| Challenge | 55.500 | -.936 | .361 |
| Harm | 59.000 | -.776 | .494 |

| | | | |
|----------------------|--------|--------|-------|
| Benefit | 46.500 | -1.462 | .150 |
| Confrontive coping | 52.500 | -1.121 | .277 |
| Distancing | 52.500 | -1.108 | .277 |
| Self-control | 55.000 | -.966 | .361 |
| Social support | 61.000 | -.611 | .569 |
| Acceptance | 60.500 | -.696 | .531 |
| Escape-avoidance | 59.500 | -.718 | .494 |
| Planful problem | 65.500 | -.353 | .733 |
| Positive reappraisal | 46.500 | -1.456 | .150 |
| Hope pathways | 38.500 | -1.958 | .055 |
| Hope agency | 41.500 | -1.770 | .082 |
| Hope overall | 36.500 | -2.038 | .041* |
| Positive Affect | 38.000 | -1.951 | .055 |
| Negative Affect | 46.500 | -1.453 | .150 |
| Optimism | 3.000 | -3.989 | .000* |

4.6 The Relationship Between Important Variables, Hope, PA/NA, Optimism and Coping

The variables discussed in this section were assessed in the interview and categorised according to their presence or absence. Mann Whitney U T-Tests were used to compare the relationship between these important variables and hope, PA/NA, optimism and coping.

4.6.1 Traumatic event

Stressful events have been proposed to be a cause of cancer (Jensen, 1991) and thus subjects were asked whether they had experienced such an event prior to their cancer. The reported stressful events were serious and objective: divorce/marriage problems (n=1); death of a close relative (n=5); financial problems (n=1); immigration of a close relative (n=1) and physical attack (n=1). Furthermore, there were differences between the group who suffered trauma, 37,5% (n=9) and those who did not, 62,5% (n=15) on their appraisals, scales of coping and optimism (see Table 12).

Table 12 Mann-Whitney U T-Test for the variable trauma

| | Mann-Whitney U | Z | Exact Significance |
|----------|----------------|--------|--------------------|
| Threat | 28.000 | -2.521 | 0.18 |
| Distance | 28.000 | -2.370 | 0.18 |
| Optimism | 26.500 | -2.457 | 0.12 |

4.6.2 Hormone Replacement Therapy (HRT)

Literature has come to light to suggest that HRT may be implicated in breast cancer (Kessler, 1993). Of the 29,2% (n=7) women who had received HRT prior to their cancer diagnosis; 50% (n=6) do not feel a need for it now, 33.3% (n=4) do feel a need for it and 16.6% (n=2) had mixed feelings.

However, women who had received HRT did not show significantly higher levels of hope, PA or optimism than women who had not received HRT. Moreover, they had no different coping skills in comparison with women who had not received HRT.

4.6.3 Age and length of remission

For the whole group there was a significant negative correlation between age and threat and age and harm appraisals. Furthermore, age was negatively correlated with the coping scales confrontive coping as well as escape avoidance. Thus, the older one is the less likely one is to imagine harm and threat in the long term follow-up treatment of breast cancer as well as use the coping responses confrontation and escape avoidance. For group 1, the negative correlations remained with harm appraisals and escape avoidance coping. For group 2, the negative correlations between threat and harm appraisals and age were maintained but there was no specific coping method used or not used relating to the variable age. Age was however, correlated negatively with negative affect (see Table 13).

For the whole group, the length of remission was not positively or negatively correlated with any appraisals, coping scales or positive states of attitude. However, for group 1, there was a significant negative correlation between the length of remission and positive reappraisal. This suggests that the women with low hope who are further along in remission, are less likely to use positive reappraisal. For group 2, length of remission was positively correlated with only planful-problem solving suggesting that women with high hope who are further along in remission are likely to be more problem-focused (see Table 13).



Table 13 Correlations between age and length of remission and appraisals, coping, hope, PA/NA and optimism for the whole sample, group 1 and group 2.

| | Age | | | Length of Remission | | |
|--------------------|---------|--------|--------|---------------------|--------|--------|
| | Sample | Group1 | Group2 | Sample | Group1 | Group2 |
| Threat | -.532* | -.492 | -.623* | -.011 | -.109 | .157 |
| Challenge | .377 | .536 | .352 | -.072 | -.065 | .038 |
| Harm | -.721** | -.649* | -.887* | .090 | -.153 | .395 |
| Benefit | .385 | -.462 | .311 | -.120 | -.198 | .019 |
| Confrontive Coping | -.447* | -.495 | -.533 | -.063 | -.261 | .546 |
| Distancing | .092 | -.083 | .104 | .027 | -.311 | .531 |
| Self-control | -.228 | -.368 | -.151 | -.148 | -.316 | .009 |

| | | | | | | |
|-------------------------|---------|--------|--------|-------|--------|-------|
| Social Support | -.275 | -.289 | -.032 | -.365 | -.453 | -.112 |
| Acceptance | -.345 | -.504 | .026 | -.098 | -.348 | .247 |
| Escape Avoidance | -.545** | -.664* | -.459 | .006 | -.398 | .457 |
| Planful problem solving | -.300 | -.258 | -.318 | .024 | -.480 | .703* |
| Positive Reappraisal | -.099 | -.026 | -.258 | -.290 | -.631* | .384 |
| Hope Pathways | .028 | .385 | -.458 | .177 | .004 | .542 |
| Hope Agency | .092 | .075 | .106 | -.097 | -.131 | .127 |
| Hope overall | .068 | .290 | -.108 | .011 | -.122 | .271 |
| Positive Affectivity | .042 | .177 | -.323 | -.036 | -.398 | .382 |
| Negative Affectivity | -.387 | -.252 | -.650* | -.116 | -.367 | .159 |
| Optimism | .393 | .300 | .397 | -.114 | -.169 | -.147 |

* $p < .05$ ** $p < .01$

4.6.4 The impact of friends

A woman's way of coping and her satisfaction with her health may depend on information she gets from comparisons with friends or other people who have had breast cancer.

It may be that women bolster their sense of coping by making downward comparisons to less fortunate women. In Taylor & Armor's (1996) study they found that only 2 of 72 women believed that they were doing somewhat worse than other women coping with breast cancer. The majority felt that they were doing better. Of the women who participated in this study, $n=16$ (66,7%) had a friend or relative who had breast cancer and $n=8$ (33,3%) did not know someone close who had breast cancer. However, there were no significant differences between these two groups in relation to the variables assessing appraisal, coping, hope, PA/NA and optimism.

4.6.5 Choice of surgery

Results from over two dozen studies have found little difference between women opting for lumpectomy and women opting for mastectomy with respect to psychological and emotional functioning (Rowland in Blechman & Brownell, 1998). In this study, women who had a lumpectomy 33,3% ($n=8$) were more likely to use the coping method of distancing than women who had had a mastectomy 66,7% ($n=16$) (see Table 14).

Table 14 Mann-Whitney U T-Test for the variable mastectomy vs lumpectomy

| | Mann-Whitney U | Z | Exact Significance |
|------------|----------------|--------|--------------------|
| Distancing | 19.500 | -2.742 | 0.005 |

CHAPTER 5: DISCUSSION AND CONCLUSION

5.1 Introduction

This study has developed the issue of coping based on Folkman and Lazarus' theory as well as Snyder's theory of hope. The study explores characteristic ways of coping in response to the specific stressor, long term follow-up of breast cancer treatment. An appraisal of breast cancer patient's perceptions regarding their coping styles has been shown to provide direction for further research. Firstly, this appraisal increases our understanding of the contextual determinants of the selection of coping styles. Secondly, Folkman and Lazarus' theory assesses the mediating effects of coping on emotion. Hope is a personality construct which has been shown to be of importance in coping and well-being. Since emotional expression may be involved in cancer onset and progression, using both a coping theory as well as a positive emotional and cognitive set, may also provide valuable data on the needs of individual breast cancer patients for clinical interventions. Psychotherapy could be offered to those women who might be coping inadequately with the stress of long term follow-up treatment of breast cancer which as suggested by Folkman and Lazarus (1988) affects one's emotional responses.

5.2 Appraisals in the Long Term Follow-Up of Breast Cancer Treatment

The goal of appraisal is to thrive in the environment and both internal events and external events lead to appraisals. Folkman and Lazarus (1985) argue that during a highly ambiguous anticipatory stage, the correlation between the emotions associated with harm and benefit appraisals should be low, reflecting the high degree of uncertainty about the outcome of a situation. However, once an event unfolds there should be less uncertainty surrounding it and the meaning of the encounter for well-being should become clearer, leading to clearer appraisals. In terms of the anticipatory stage of their treatment, subjects did make either a threat or a challenge appraisal. Thus, women in long term follow-up of

breast cancer remission foresee their yearly treatment with certainty; being either trepidacious or resolute. In terms of outcome, women in long term follow-up of breast cancer should be making either a negative (harm) or a positive (benefit) appraisal of their outcome. From the results, however, it appears that these appraisals are not significantly negatively correlated. This is likely due to two elements. Firstly, women may feel they have both gained and lost something in their treatment experience of breast cancer. Secondly, the danger of recurrence may generate continuing uncertainty and anticipation. However, although subjects are not entirely certain about the outcome or future of their breast cancer, they appear to be more oriented towards challenge and benefit appraisals rather than threat or harm appraisals.

5.3 Ways of Coping in Long Term Follow-up of Breast Cancer Treatment

Analysis of the Ways of Coping Questionnaire (WCQ) demonstrated that the long term coping process of breast cancer patients reveals a widespread variability. This result concurs with Heim et al. (1987), who found that the variability of coping patterns increases with time. It also suggests that subjects employ a variety of coping strategies in coming to terms with breast cancer and these may

reflect denial, stoicism, hopelessness and a fighting attitude all within the space of the same time. Thus, the WCQ identified the extensive use of both emotion and problem focused coping in women in long term follow-up of breast cancer. The principal model of emotion focused coping used by women in this study, centres around the way in which subjects change the subjective meaning or significance of their situation. This type of effect is achieved through cognitive coping activity that reflects denial-like strategies such as distancing, emotional-control and emphasizing the positive aspects of the breast cancer.

Positive reappraisal is a cognitive coping strategy that involves selective attention and reconceptualizing the problem in order to make it more manageable. This predominant form of coping with long term follow-up of breast cancer appears not only to diminish negative emotional response but may generate positive emotional response as well (Monat

& Lazarus, 1991). While there was not a significant relationship between higher positive affect and the use of positive reappraisal in this study, the latter coping strategy was significantly correlated with challenge appraisals. Thus, this strategy may operate by influencing subject's appraisal of their situation in the anticipatory stage of their encounter. Thus, it is suggested from the results that the women in this sample through the cognitive coping strategy positive reappraisal, transform a threat appraisal into a challenge through focusing on the possibilities for mastery or growth that inhere in their long term follow-up of treatment. Moreover, positive appraisal appears to generate challenge emotions such as confidence and hope and perhaps reduces threat emotions such as fear and anxiety.

As positive reappraisal is associated with the anticipatory appraisal of challenge emotions and not with the outcome appraisal of benefit emotions, it does not appear that positive reappraisal is used to extract positive meaning from harm that has already occurred. Thus, it is not clear whether this sample has indeed come to terms with the effects of breast cancer. In fact benefit appraisals which refer to the outcome stage of the encounter were only significantly related to the coping style planful problem solving. This corresponds to the hypothesis that women who make benefit appraisals will use primarily problem-focused coping. In this instance, through planful problem solving women are acknowledging the trauma related to breast cancer but do not seem to want to deal with its emotional significance.

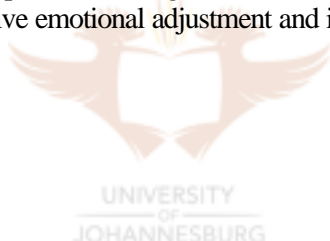
According to Taylor and Armor (1996), on the surface, positive illusions may look like mind-numbing bromides that get people through trying situations by permitting them to ignore the objective evidence and to maintain a fictional belief akin to denial that all will be well if one takes no action and waits things out. As such, positive illusions might seem analogous to avoidant coping, wishful thinking, denial or repression. However, there are some conceptual and theoretical differences that highlight how positive reappraisal may be distinguished from these states. It has been argued that a response to an event such as denial or repression is based on anxiety and that these responses increase as the event

becomes more threatening. The women in this study do not seem to find their annual treatment threatening and thus, in contrast, their positive reappraisals appear to incorporate the possibility of negative outcome but still enable them to face their condition with the view to

growth and action. Positive reappraisal represents people's belief in their own personal qualities, their degree of personal control and the nature of their personal future with regards to issues such as spirituality, creativity and maturity. Wish fulfillment and denial on the other hand, are more focused on how one wants external events to be when they are clearly not. Thus, positive reappraisal highlights a type of active optimism rather than a naive belief and the former is associated positively with psychological adjustment whereas the latter is not (Taylor & Armor, 1996).

Furthermore, the fact that positive reappraisal is an emotion focused coping response does not belie its active constructive ability. This coping method highlights that women are able to believe in their own abilities and can have a sense of personal control and optimism living with breast cancer remission. It involves a constructive positive assessment that then results in a positive appraisal of one's ability to take active measures in response to the stress of long term breast cancer treatment. Thus, the women in this study may be choosing to distance themselves from the implicit trauma of their treatment in favour of an active belief in their personal resilience to overcome any stressful outcome.

Challenge appraisals were not significantly associated with any further coping scales thus, this result rejects the premise that people with challenge appraisals will use primarily problem-focused coping. Furthermore, it does not correlate with Burgess et al. (1988) who found that people who see cancer as a challenge report significantly greater number of behavioural responses. Rather, the current results highlight that women who appraise their long term follow-up treatment as challenging are singlemindedly on a course of positive emotional adjustment and insight without thought for more negative responses.



Two of the coping strategies used frequently by women in this sample are distancing and self-control. This latter strategy is interesting considering that it is well documented that a passive, repressive personality style is often found in cancer patients (Jensen, 1991). Self-control is aimed at the regulation of painful emotions engendered by the illness. The fact that self-control is correlated with harm appraisals as well as negative affectivity does suggest that women in long term follow-up of breast cancer who use this emotion focused coping method are nevertheless, aware that they do have harmful emotions. Nonetheless, although they were able to acknowledge these harmful emotions by their responses to the questionnaires, they do not believe in sharing these emotions or giving vent to them..

Distancing is different to self-control in that one deliberately detaches from the situation and where possible looks for the positive element. Thus, the person does not detach from their feelings but rather makes light of their feelings in order to create a positive outlook. Thus, the significant correlation with positive affectivity as well as hope highlights the usefulness of this coping strategy in maintaining women's hope and emotional well-being. While denial of one's true position can be potentially harmful, according to Blechman (1998), there are times when the best strategy is to get on with events and engage in distracting activities that reduce concern about uncertain outcomes (in this case, the desire for continued well-being). Traditionally, denial is considered to sometimes have short-term efficacy in certain situations (Faragher, 1996) however, the women in this study highlight a possible long-term superior coping skill in the face of what can be described as the uncertainty phenomenon in women with breast cancer (Faragher, 1996). A study by Greer

(1979) which investigated 69 women with breast cancer, discovered that those women who coped with a fighting spirit or denial response were twice as likely to survive in the ensuing 5 years than those who coped with stoic acceptance or hopelessness. According to this study and the results found here, denial may have enabled women to focus on other important areas of their lives.

While many women in this study were positive about the use of the coping strategy seeking social support, the only meaningful relationship between this variable and appraisals, was with the variable threat appraisal. Therefore, women in long term follow-up of breast cancer treatment appear to rely on their family and friends' support only when they anticipate feeling threatened by their experience of their treatment. However, social support was correlated with both emotion and problem focused coping methods and this interrelatedness of coping styles is crucial. For example, in this study, subjects indicated that they received exceptional support from family, friends and religious communities. Furthermore, many women were accompanied by family members or friends. This result corresponds with research indicating that social support protects against the harmful effects of stress (Neuling & Winefield, 1988). Moreover, seeking social support was correlated with confrontive coping as well as accepting responsibility and positive reappraisal, all positive and forward looking coping methods. According to Dunkel-Schetter et al. (1987), coping styles used by people in times of stress may not only communicate that support is needed and what types are appropriate, but they also make it easy or difficult in subtle ways for others to provide support. For example, it is a lot less threatening to offer help to someone who does not see too distressed or who appears to be coping moderately well.

The remaining emotion focused coping strategies of escape-avoidance and blaming oneself or others were used infrequently by most women in this sample. This finding differs from the results of a study cited in Jarret et al. (1992) which discovered that attributions of blame were prevalent amongst American women with breast cancer. However, what is noteworthy is the correlation between harm appraisals and accepting responsibility. This finding signifies that women that believe they are responsible for their breast cancer are more likely to acknowledge the harmful consequences of their illness and ongoing treatment. Fleshing out the items on the escape-avoidance scale suggest that the women in this study experience little regret over physical changes but they have found it more difficult to follow new health behaviours. With this in mind, health professionals might provide the resources to assist women in meeting diet and exercise goals as suggested by Wyatt and Friedman (1996).

In general, it has been suggested that no coping strategy should be labelled as inherently good or bad (Monat & Lazarus, 1991; Blechman, 1998) and it is important not to lose sight of Lazarus and Folkman's (1984) principle that the adaptive value of a coping process often depends on the context. It appears as though differentiations between emotion-focused coping as bad and problem-focused coping as good must be replaced by an understanding of the subtlety of the coping process (Blechman, 1998). Thus, whereas the emotion focused strategies of cognitive coping through positive reappraisal may be maladaptive in short-term coping in obstructing efforts to actively overcome practical difficulties and the trauma associated with cancer, it may be more adaptive in long term follow-up treatment in helping women to maintain a sense of well-being and hope under conditions otherwise likely to encourage psychological disintegration. Indeed patients

who

avoid thinking about cancer and minimize the impact of their illness have shown less evidence of distress than those who do not use avoidance strategies (Sarafino, 1990).

Although cognitive coping strategies are thought to be emotion focused, any coping strategy can serve multiple functions. Only within particular contexts can we try to unravel the exact nature of a specific act. While positive reappraisal may entail reconceptualizing the trauma of cancer cognitively and thus, may change the emotion, it may also lead to direct problem focused coping. For example, seeing the potential for mastery may result in active attempts to change the situation by changing one's life style. Women in this study utilized both emotion and problem solving coping but there is some emotional distress as far as can be deduced from the measures used, associated with the emotion focused coping scales self-control and escape-avoidance. Therefore, most women cope with breast cancer and it's treatment by thinking very little about it and by not always actively devising strategies for dealing with it but they are not entirely fatalistic and merely seem to think that the most effective way of coping with the stress is to block out negative feelings associated with it. To the extent that anxiety and depression are kept at bay, this style of coping is apparently effective. It most resembles what is formerly described as "denial" (Burgess, 1988). However, due to the retrospective nature of this study, it would be

incorrect to assume that women with breast cancer have never allowed themselves to admit negative emotions.

Lastly, it is important to recognize that the quality of problem focused coping and hence its impact on the emotional response, depends in part on the successful control of negative emotions, in effect, on emotion focused coping. Too much emotional feeling could interfere with the cognitive functioning that is necessary for effective problem-focused coping (Folkman & Lazarus, 1988). Thus, it seems likely that subjects use emotion-focused coping to deal with the negative aspects of their long term follow-up of breast cancer treatment as well as those aspects of the outcome of their disease which are appraised as unchangeable and conversely use problem-focused coping to deal with the aspects that are amenable to change. Finally, although the presence of two forms of coping may at first appear contradictory, such as the significant correlation between confrontive coping and accepting responsibility, when they are viewed temporally as efforts to regulate emotional state while trying to alter the situation, their functions appear complementary.

When people face cancer, a potentially life-threatening event, they may become different, at least from their own perspective. Repeatedly, the women in this study spoke about being altered in many ways for the better by their breast cancer experience. One of the components that falls into the category positive reappraisal is an increased sense of spiritual coping with many women highlighting that they pray during this time. Many theorists have stated that they psychologically healthy person is one who maintains close contact with reality however, in this study, so-called illusory components such as the benefit of prayer, self-growth and spirituality seem to contradict this assumption. When asked if there was any other coping method that they employ over and above those found in the questionnaire, many women spoke about their belief in God and the impact that their treatment and experience has in this realm. Believing seems to allow women to achieve a sense of control of the trauma of breast cancer.

5.4 Hope and Coping

Recently, data linking hope to physical well-being has grown (Herth, 1990; Snyder et al., 1991; Lightsey, 1996). What is less clear from what has been discussed so far, is the nature of the mechanism or mechanisms that underlie the effect of hope. There are at least two, not mutually exclusive, possibilities. The first possibility is that the variation in well-being between high hope and low hope patients defines the way each person selects and uses the general strategies of coping that are available. The second possibility is that high hope, low hope differences have a direct effect on biological functioning. As concerns the latter possibility, Scheier and Carver (1987) cite studies in which firstly, depression predicted the adequacy of DNA repair, secondly, optimism predicted prospectively an immunity to the development of depressive symptoms and thirdly, recent work has associated natural killer cell activity to an optimistic attributional style, suggesting that it may well have important links to immunological functioning.

The theoretical approach discussed in Chapter 2 suggests that high hope subject's appraisal of situations in generally positive terms may pertain to their assessment of stressful positions as challenging rather than threatening which in turn leads to different kinds of coping strategies. The hypothesis that subjects high in hope will see their condition as challenging was confirmed. Hope agency and hope overall were significantly associated with challenge appraisals. The lack of association between hope pathways and challenge appraisals suggests that one does not have to have a sense of planning to meet one's goals rather it is enough to be fuelled with a sense of successful goal-directed determination in order to feel challenged. Moreover, hope agency and hope overall were significantly correlated with benefit appraisals, indicating that women who generally have a sense of personal energy and perseverance, feel they have gained more from their experience of breast cancer than women who do not. Lastly, the reason for the insignificant negative correlation between threat and harm appraisals and hope may reflect their relatively low variance and mean.

The mean for hope overall was high and together with optimism two groups were formed, a low hope group and a high hope group (see table 2). While the former group had similar correlations in terms of appraisals as the whole group above, these correlations were insignificant for the high hope group. Perhaps the fact that the correlations disappear suggest that women with high hope are more able to integrate both the negative and positive aspects of their ongoing treatment than women with low hope who seem to focus more on what they can get out of the treatment. This result seems plausible considering that there is a significant negative correlation between threat and challenge appraisals for the low hope group but not for the high hope group.

Moreover, for the low hope group women who see their breast cancer in terms of threat appraisals use the emotion focused coping scale, escape avoidance while harm appraisals were associated with self-control, accepting responsibility as well as escape-avoidance, all emotion focused coping methods. These results highlight that low hope combined with threat and harm appraisals impact on the selection of mainly emotion focused coping. However, low hope women who appraise their long term follow-up treatment as beneficial use the problem focused coping method of planful problem solving. Thus, low hope does compound the way in which women appraise their situation and their subsequent choice of emotion or problem focused coping styles. High hope women on the other

hand, reveal a different pattern. Both threat and harm appraisals correlated significantly with the problem focused coping response, confrontive coping, while challenge and benefit were both negatively correlated with the emotion focused coping style, escape-avoidance. These results highlight that hopeful women with positive appraisals are determined not to use denial or wishful thinking in their response to breast cancer treatment whereas hopeful women with negative appraisals are more likely to redouble their efforts to confront their fears and overcome any adverse outcome from their check-up. Taken together, these results highlight the importance of the variable hope for the well-being of women in breast cancer remission. Hope appears to increase women's singleminded determination to face up to and conquer any fears they may have about their treatment.

With reference to selecting coping strategies, hopeful subjects in this study display coping patterns that involve continued positive striving and making the best of their situation in both a problem and emotion focused way. Thus, their sense of successful goal-directed determination and ability to plan to meet these goals seems to facilitate their dealing with the problems at hand in different ways. Since hope has been operationalized in terms of generalized desire for good outcome, it follows that hope should be associated with active attempts to deal with stressors in problem focused ways. Hope overall was significantly correlated with all the problem focused scales.

Prediction with respect to emotion-focused coping is somewhat more unclear because emotion-focused coping involves a broad range of rather different tendencies. There is evidence that people who have unfavourable expectancies focus on those expectancies and the subjective distress associated with them (Scheier & Carver, 1987). A logical deduction from this finding is that low hope may be associated with a tendency toward certain kinds of emotion-focused coping. Because it is often assumed that emotion-focused coping occurs in the service of problem-focused coping, however, it also seems plausible that high hope would be associated positively with the use of certain emotion-based strategies. Indeed, hope agency, hope pathway and hope overall were also significantly related to the emotion focused scale, distancing. This outcome suggests that efforts to detach oneself are related to continued feelings of hope as well as continued determination and planning.

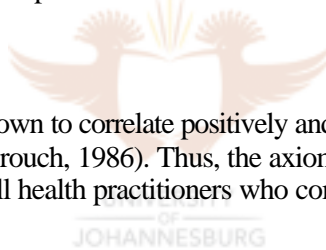
In relation to how hope impacts on the correlations between coping styles, a similar result was observed for the low hope group as with the whole group, mainly many of the scales, emotion focused and problem focused were correlated with one another. However, for women with high hope, the only significant relationship was between social support and accepting responsibility. This result suggests that women who are hopeful are more likely to seek social attention if they feel burdened and responsible for making decisions about their breast cancer treatment.

Hope is not so much a personality style as a set of mentally healthy reacting to difficult circumstances that the majority of people are able to muster. According to Snyder (1995), people with higher dispositional hope actually experience more positive outcomes in their life. The advantages of higher hope translate into having more goals in life, tackling more difficult goals as well as success at achieving goals. It would appear that high hope individuals perceive goals in life as challenges, are happier and experience less distress. Thus, a benefit of measuring hope is that we

can isolate high hope people and see what it is that they do naturally to achieve their advantages in life. Furthermore, because hope can be seen not so much as a personality style but rather as a set of responses to difficult circumstances, Snyder (1995: p 358) also gives examples for rebuilding agency and pathways derived from what high hope persons say and do:

1. Learn self-talk about succeeding
2. Think of difficulties encountered as reflecting wrong strategy, not lack of talent
3. Think of goals and setbacks as challenges, not failures
4. Recall past successes
5. Listen to stories of how other people have succeeded (eg. movies, tapes, books)
6. Cultivate friends with whom one can talk about goals
7. Find role models that one can emulate
8. Exercise physically (relearning that the body and mind are connected)
9. Eat properly (remembering that one needs fuel)
10. Rest adequately (recharging for the next active goal-directed output)
11. Laugh at oneself (especially when stuck)
12. Regoal (persistence in the face of absolute goal blockages deflates agency and pathways)
13. Reward oneself for small subgoal attainments on the way to larger, long-term goals
14. Educate oneself for specific skills as well as learning how to learn

Furthermore, it is suggested that even low hope clients have molecules of hope on which to build as indicated by their appraisals and use of coping methods. Lastly, Snyder (1995) highlights the importance of evaluating ones own hope as a counsellor as the hope of staff



at rehabilitation centres has been shown to correlate positively and significantly with level of hope reported by their clients (Crouch, 1986). Thus, the axiom “healer, know thyself” is important for doctors, nurses and all health practitioners who come into contact with the breast cancer patient..

Taking into consideration the high means of hope that the women in this study have, how does one understand the situation where a person is living with the fear of cancer recurrence, yet appears immensely hopeful ? Some of the difficulties which currently exist in answering this question and understanding what hope is for people who have cancer, emerge as a result of the rather limited way that many writers have conceptualized the phenomenon of denial. Most of the research and theoretical discussion has centred on the psychological state of the individual and often has not considered this within the context in which the person with breast cancer lives her daily life. When one considers quite plausible social explanations for a person's behaviour, alternative interpretations of "unrealistic" hope or denial are identified. For example, Kellehear and Fook (1989) have suggested that a distinction should be made between denial that may exist for defensive psychodynamic reasons and other forms of avoidance behaviour. It is simply more acceptable in our culture to be positive. Thus, being hopeful may signify denial of the breast cancer patient role, not denial of the condition itself. This phenomenon has been referred to by Friedman and Gilboa as "Adaptive Denial" (Friedman, 1994). Moreover, according to Taylor and Amor (1996: p. 889), studies to date do not show that "positive illusions set people up for disappointment when their illusions are disconfirmed". When hope is refuted the results may not be a breakdown of beliefs and further psychological pain. Instead, hope may operate by enabling a person to shift their strategies more easily when a situation is threatening or deteriorating. Lastly, optimism which may appear unrealistic in terms of the learned assessment of prognosis can appear quite realistic in terms of the person's own subjective experience. The patients assessment of her condition, which is based

primarily on how they feel and how they perceive others relating to them, is quite different from the professional's assessment which is based on epidemiological and clinical possibilities (Kellehear & Fook, 1989).

Nonetheless, there is the possibility that highly defensive persons whose denial is not adaptive form a separate group to be studied in terms of diagnostic and treatment variables. It is likely that for these individuals, successful treatment may involve learning to be less "hopeful" or to be more realistic in their goal-setting, a possibility not explored in Snyder et al.'s theory of hope (1991).

5.5 Hope and Positive/Negative Affect (PA/NA) and Optimism

The recent attention given to psychological constructs in health highlights a need for advanced theory to clarify the ambiguities regarding the potential effects of positive states of mind on physical health. In a recent study, Snyder (1995) reported that higher hope people exhibit more mental energy and pathways for their goals when there are obstructions to those goals, suggesting that the scale has construct validity. Furthermore, according to this study, the scores on the Hope Scale predict coping, well-being and reported psychological health responses significantly beyond projections related to measures of anxiety, positive and negative affectivity, optimism, positive outcome expectancies and locus of control. This has lead Snyder to believe that high hope individuals see frustrations and obstructions to their goals as a normal part of life.

It has also been proposed by Snyder et al. (1991) that hopeful people may be more effective in reaching their goals because of their tendency to make appraisals that produce PA. As an index of a positive cognitive set, the hope concept was expected to show positive correlations with scales devised to measure positive emotions or attitudes and negative correlations with scales devised to measure negative emotions or attitudes (Snyder et al., 1991). However, while the former hypothesis was confirmed in this study with PA and hope highly correlated, the latter was not and NA was not negatively correlated with hope. This suggests that hope refers to a cognitive class that cannot be explained only in terms of the absence of NA (Snyder et al., 1991). Moreover, NA stresses how people feel about themselves, rather than how effectively people may actually be driven to accomplish

goals (Denollet, 1991). Finally, this result confirms previous findings that PA and NA are not continuous (Watson, 1988).

However, from the results it appears that some aspects of the PANAS and the Hope Scale measure the same construct. More specifically, it is likely that references to high hope and low hope in this study are analogous to references of high PA and low PA. In their validation of the Hope Scale, Snyder et al. (1991) found that hope and PA contributed unique variance in general self-reported well-being. While the results of this study are not conclusive in supporting this claim, hope overall and hope agency were found to have similar correlations to PA. Moreover, the correlations between hope and coping may be explained in terms other than goal-directedness and planning. For instance, Folkman and Lazarus' (1988) established that planful problem solving was associated with an improved emotion state, that is, it was associated with less negative emotion and more positive emotion. This was confirmed in the present study. One explanation for this is that people begin to feel better when they turn to the problem that is causing

distress. Furthermore, in certain cases planful- problem solving can have a direct effect on emotions even though the adaptational problem may remain unresolved.

According to Snyder (1995), emotions are a “byproduct” of how effective individuals are in attainment of their goals. Therefore, positive emotions may reflect periods in which people perceive that they are attaining or reaching their desired goal. Conversely, negative emotions reflect periods in which the desired goal is perceived as not being met. This is, according to Snyder (1995: p 359), “a different take on emotions” and while he does not suggest that emotions are unimportant, hope theory stresses that it is more useful to focus on goal attainment thoughts to understand and help people. In contrast, Scioli et al. (1997) believe that hope is less of a cognitive set and more emotionally rooted in early trust interactions. According to these authors, it is easier to conceptualize cognitive constructs but they highlight that a thorough assessment of hope may require “a multimodal strategy, combining self-reports with behavioural assessments and one or more indirect methods to capture the affective and existential aspects ” (Scioli et al., 1997: p 732).

Finally, in Magaletta and Oliver's (1999) study: self-efficacy, optimism and hope were shown to be related but not identical constructs. They each made a significant and unique impact on well-being. However, the scale used to measure optimism in this research did not produce a significant variable in terms of the correlations with hope and PA or other dependent variables. Thus, the relationship between these positive states appears to be a complex one leading to a need for more “emic inputs to the operationalization” of positive variables like hope, positive affectivity and optimism. Furthermore, such “inputs become more important when the personality construct in question originates from the philosophies or folklore of a specific culture” (Lai et al., 1998: p. 54). Schulz and colleagues (1996) have cautioned that although there does appear to be a relation between cancer mortality and psychosocial factors, this relationship is more complex than existing research shows. According to these authors, it is vital to focus on the role of specific psychological constructs as opposed to “diffuse, global measures” (Schulz et al., 1996: p 308).

5.6. Additional Variables Associated with Coping, Hope and PA/NA

While many of the conditions determining coping methods in specific situations are undoubtedly complex and largely unknown at this time, they likely depend not only on the conditions being faced but also on other variables. For example, in this sample the older the subject, the less likely they are to perceive harmful outcomes in their appraisals and anticipate threat. Furthermore, the older one is, the less likely one is to use confrontive coping and escape-avoidance as a coping strategy. For the older person, endorsing denial of threat and harm and refusing to either confront or avoid their situation may simply reflect a coping strategy that has become adaptive in the face of declining ability to control important outcomes such as health. Another possibility is that the psychological impact of an illness like cancer is not as great among older people when compared with young. Cancer is more normative among older people and the incidence of breast cancer increases with age (Apfel et al., 1994). Thus, older women are far more likely to know someone in their peer group who has experienced (and perhaps coped successfully with) cancer. In addition, older people have typically had more experience with illness and

disability in general than younger persons. As a result, coping with illness may become more standard and the role of some psychological factors such as despair may be moderated (Schulz et al., 1996).

Trauma has been proposed to be a cause of cancer (Jensen, 1991), although methodological flaws in studies make this claim debatable. Nonetheless, taking into account the highly traumatic climate currently enveloping South Africa, this variable deserves further investigation. While over a third of the sample in this study reported having experienced a traumatic event prior to their diagnosis of cancer, bearing in mind the retrospective nature of the data, one cannot make unequivocal inferences. However, what may be noted is that despite opinions such as those like Maunsell and colleagues (1992), that stressful events may indicate patients with breast cancer at high risk of severe psychological distress, women in this study were not, as far as could be ascertained by the measures used, experiencing psychological distress. Nevertheless, they did not have the same level of optimism as women who had not experienced a stressful event. In terms of their coping responses, women who had suffered a trauma were more likely to see their treatment as threatening and used more of the coping method, distancing. This leads one to surmise about the possibility of women who had suffered a trauma prior to their diagnosis not having come to terms with the traumatic event. Women who had suffered a traumatic event also seemed to have been prescribed more mastectomies than their counterparts who were prescribed a lumpectomy. Although it is difficult to draw biological conclusions from this, it offers an interesting area for further research.

Literature on hormone replacement therapy (HRT) has recently suggested that this method of treatment may be implicated in breast cancer (Kessler, 1993). Bearing in mind the advantages that HRT confers on women by delaying the aging process, there is a suggestion that the termination of this treatment may be the cause of psychological distress in long-term follow-up of breast cancer treatment and not the cancer itself. This was not confirmed in this study and women who had previously received HRT

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did not show significantly higher levels of hope, PA or optimism. Neither did they use different coping strategies. One can possibly surmise that women are well informed of the possible implication of HRT (this appeared to be the case) in breast cancer and attribute their illness to this treatment. Thus, no longer receiving HRT may confer more peace of mind on the breast cancer patient. While they know that oestrogen takes care of hot flushes and menopausal symptoms, they are also aware that oestrogen is deadly for the breast cancer patient with oestrogen receptors on her tumour. For women living with breast cancer remission, hot flushes and sudden menopause may be looked at with gratitude because they are evidence of a decrease in oestrogen (Apfel et al., 1994).

Finally, the length of remission may be a further variable dictating one's coping responses. In previous studies, breast cancer patients who survived up to five years, report levels of psychological adjustment similar to those reported by a control group of asymptomatic women (Kurtz et al., 1995). In this study, length of remission was not correlated with any of the other variables for the whole group. However, for the low hope group, remission length was negatively correlated with positive appraisal. Thus, it appears as though low hope and length of remission function together as facilitators of a more realistic and fatalistic view on one's life. However, for the high hope group, remission was significantly correlated with planful-problem solving. This highlights that hope together with many years of remission focuses a woman towards more problem focused coping. It is likely

that the further one is along in remission, the less likely that one is to have residue emotional problems. Similarly to Kurtz et al. (1995), one can suggest that doctors and nurses involved with women who have survived cancer in the long term, must be aware and reinforce their psychological well-being as well as provide opportunities for interested survivors to be involved with women newly diagnosed with breast cancer.

The type of surgery women received - lumpectomy or mastectomy - has been suggested to impact on their psychological adaptation to and coping with breast cancer (van der Pompe et al., 1996). However, this variable impacted only on the coping response distancing with

women who had received a mastectomy more likely to distance themselves from the onslaught of the surgery. The reason that this variable does not impact on hope or affectivity may be due to the fact that their surgery treatment is outweighed by other goals or responses to the continued threat of recurrence.

5.7 Summary and Conclusions

Learning that one has breast cancer and subsequent treatment is a severe stressful life event with profound effects on all dimensions of human life. Breast cancer patients have specific needs and difficulties which may, in a significant number of women, last longer periods. According to van der Pompe et al. (1996), whether a patient will regain emotional stability and accept the idea of living with a potentially life threatening disease is related to her psychological resiliency. Therefore, "women with a depressive predisposition, ineffective coping styles and a high level of stressful life events in their current lives may have an increased risk of developing psychiatric symptoms" (van der Pompe et al., 1996: p. 217).

The major focus of this study has been the role of coping and the personality trait, hope, in the long term follow-up of breast cancer treatment. The term "coping" has adopted a variety of meanings, perhaps because of its frequent usage. However, agreement seems to be developing among experts in the field that coping refers to an person's efforts to overcome conditions that are appraised as exceeding or exhausting their resources (Monat & Lazarus, 1991). The major points presented in this research are addressed within the context of Lazarus and Folkman's widely cited and applied transactional model of coping. As Auerbach (1989) has suggested, this process model has heuristic power for integrating important questions in research on coping with illness.

This study has shown that it is feasible to use the Ways of Coping Questionnaire (WCQ) in the development of situation-specific measures of coping with breast cancer. In addition, it has highlighted the strengths and the weaknesses of the questionnaire enabling its future

adaptation for more valid use. More specifically, the WCQ items can be divided into three groups with regards coping with breast cancer. There are items that subjects found highly relevant, items that were of possible relevance and items of little or no relevance. These latter items need to be reevaluated and the scale modified to reflect the results of this study for future use with breast cancer patients in long term follow-up of treatment.

In summary, the data suggests that women use a variety of coping strategies, both emotion and problem focused in their long term follow-up of breast cancer treatment. Moreover, their appraisal of their cancer is in highly challenging terms and one can conclude from their high levels of hope and PA that subjects are aware of the potential for mastery and goal attainment in their illness.

There are several advantages to assessing what breast cancer patients do to manage stressors. Emotional distress in women with breast cancer improves over time, however, to the extent that one can speed this improvement and lessen the degree of the distress, we will have achieved another measure of success in our efforts to enhance quality of life (Edgar et al., 1992). Furthermore, despite the fact that governments are spending more money on research, the incidence of cancer has increased while survival rates have only risen slightly (Eysenck, 1998). In coming years, no breakthrough in medical treatment is expected. So, psychosocial care of patients and their families remains important. This is important considering that there is data that psychotherapy may impact not only on adjustment to medical illness but survival time with it (Spiegel, 1996; van der Pompe et al., 1996).

Thus, the purpose of attempting to measure coping response profiles would be to design psychotherapeutic intervention for those women who might be coping inadequately with the stress of long term follow-up of breast cancer because several reports indicate that psychotherapy can improved both the quality and quantity of life for cancer patients (Barinaga, 1989; Trusburg et al., 1992; Faragher, 1996). Psychotherapy has been



shown to have a strong positive spinoff on emotional states, physical arenas such as immune enhancement among AIDS and cancer patients as well as mortality associated with cancer and coronary artery disease (Lightsey, 1996). Furthermore, Eysenck (1998) maintains that psychological intervention holds the key to prevention in that together with medical treatment it offers great promise for increasing survival time substantially. It must be recognised however, that women may have preferences for coping with breast cancer and insensitivity to these preferences may result in negative reactions to clinical interventions (Shewchuk et al., 1999). Therefore, according to Dan (1996), a major criterion for work in women's health issues is that attention is paid to what women in particular contexts are saying. "Listening to the voices of women, one hears their strengths and resilience and their strategies for meeting the demands of their lives. Not only must we attend to the problems of women, but we have so much to learn about the nature of these difficulties, how health is compromised and what caring systems are needed" (Dan, 1994: p. 386). One caveat however, is that while women in this study showed incredible strength, hope and acceptance, it is difficult to suggest that teaching such coping methods will have the same effect as that following from a spontaneous reaction. However, these are questions worth investigating (Carver et al., 1993).

Adaptation may have been easier for the women in this study than in earlier decades because of the increased information about cancer available to the general public, the reduction of stigma attached to cancer as a disease, the generally greater acceptance by the treatment community of women's rights to participate in treatment decisions, the trend toward less radical surgical procedures, increasing opportunities for breast reconstruction, the widespread availability of support from organisations such as Reach for Recovery, the growing number of social workers at hospital breast clinics and the increasing awareness of the importance of psychosocial factors by caregivers in oncology settings (Jarrett et al., 1992).

In light of recent research indicating links between hope and health, it is apparent that a greater understanding of hope is important (Staats, 1989). The inclusion of hope in this study involves a popular notion about the connection between psyche and soma and the conviction that individual will can influence physical processes. The fact that so many questions can still be raised about the experience of hope in people who have cancer suggests that it is time for us to question some of the assumptions underlying the current debates and that a reconceptualization of hope is needed (Yates, 1993). This is particularly important considering that in the current research, facets of the Hope Scale appear to measure positive affectivity rather than the conceptual construct discussed by Snyder et al. (1991). Thus, further research efforts are needed to refine the measurement of hope and to understand ways in which it can be encouraged, as "hopeful people are able to come through enormous travails because they understand suffering and have learned to surmount it" (deAngelis, 1991: p. 18). Furthermore, hope can be understood as a multidimensional concept that may represent a set of very different elements for different individuals. Therefore, for some people to be more in control may be important to maintain hope while for others the perception of social support available may be more important than goal directedness or mastery. Finally, for others to find meaning may be most central and while there is a common thread of expectancy within these ideas, the concept of hope needs to carefully consider these possibilities (Nunn, 1996). Lastly, one must consider the possibility that if hope about one's future is disconfirmed, does that leave the person more vulnerable to psychological distress than would have been the case had their perceptions not been highlighted with hope.

The analysis of hope and coping in women in long term follow-up of breast cancer treatment is in its infancy and direct testing of the ideas in this study with measures of hope with more conclusive construct validity is necessary. Nonetheless, the findings constitute a promising beginning and the possibility of using relationships such as those identified between hope, positive affect and coping to develop interventions remains a prospect for future research. While stress and its harmful effects have been examined

extensively, less systematic thought has been given to the ways in which humans react to stress positively (Monat & Lazarus, 1991). From this study it emerges that the capacity to cope with demands is much greater than usually assumed. Women who are hopeful and feel a sense of control over their lives are able to cope with the diagnosis of cancer in a healthy and positive way. They appear to bring the same strengths to their cancer situation as they possibly do to other areas of their lives. Thus, cancer should no longer be seen only as gloomy, unpleasant and frightening and research needs to reflect the positive psychological and emotional outcome that is possible.

What this study suggests is that breast cancer is not the worst thing that can happen. The worst thing is accepting defeat and giving up hope. Breast cancer appears to be an opportunity to utilise women's strengths, her relational capacities and her affirmation of what it means to be a woman, in her personal capacity rather than based on the shape of her breast (Apfel et al., 1994). These women realise the reality of their situation but look forward and have overall positive outlooks for the future. According to Apfel et al. (1994), while most women react in relation to their individual

enduring personality styles, breast cancer can shift a woman's balance either way. On the one hand, a woman can give herself the right to administer self-care and focus on her inner world in terms of self-realization. On the other hand, she can accept what fate has in store for her and then work at supporting and providing for her family. For these authors, creating a balance between these two dimensions is a challenge for every woman, a challenge that is "put into sharp focus when seen through the lens of breast cancer" (Apfel et al., 1994: p. 230).

Soffa (1994), an author who has experienced breast cancer first hand writes about how in the Buddhist culture, being a warrior doesn't equate with being a fighter. Instead, being a warrior has to do with "courage, strength and patience - being prepared in every way so that the fight becomes unnecessary" (Soffa, 1994: p. 16). Soffa suggests that women need to take care of themselves on different levels in order to heal from their breast cancer. For Soffa (1994), curing breast cancer is essentially about transformation that occurs on three

different realms: physical, emotional and spiritual. The women in this study seem to concur with Soffa's experience but unfortunately our medical system does not provide people with such holistic treatment.

5.8 Suggestions for Further Research

Future studies on coping and cancer need to untangle issues involving causality (Dunkel-Schetter et al., 1987). For example, this study highlighted the correlation between social support and problem-focused coping. However, studies need to follow up on such findings to determine whether support is more readily available to those who are coping effectively or whether adequate support enables one to cope more satisfactorily (Neuling & Winefield, 1988). Furthermore, although a statistical measure may reveal that patients frequently make a plan of action and follow it in coping with cancer, this measure does not provide details about the precise actions that are taken. Therefore, certain responses may need to be explored to discover more precisely the nature and perceived functions of coping efforts which may in turn suggest ways of explaining how coping affects well-being. Finally, this approach may point to solid coping responses that are especially effective for managing the unique stressors faced by breast cancer patients in long term follow-up of treatment (Sommerfield & Curbow, 1992).

According to Buddeberg et al. (1991) single case studies should be carried out with special attention to psychoimmunological effects. It may turn out that psychoimmunological reactions do not develop in the same way for all people. Findings in this direction could be one possible reason for the inconsistent results of recent psychooncologic prospective studies. There may, Buddeberg et al. (1991) argue, be more individual variability in the relationship between body and mind than we can imagine based on our actual knowledge. It has also been suggested that the most meaningful issue for future research in the area of health psychology is that of preventing relapse (Monat & Lazarus, 1991). Research in the field of psychooncology also needs to reflect that for a continuing threat such as cancer

recurrence, finding the reasons for its occurrence may be less important than finding a way to modify its course now (Taylor et al., 1984).

Some attention to the limitations of the study merit comment. Firstly, discretion should be practised in generalizing these results to all breast cancer patients because subjects were not strictly randomly sampled. Secondly, this study is not longitudinal, making it difficult to venture causal statements and definitive answers to many of the issues raised. For example, does the relationship between hope and coping remain stable? What are needed are psychoncological longitudinal studies to question the stability or instability of coping strategies, as well as the relationship between hope and coping. While variability in coping has been identified as functional (Sommerfield & Curbow, 1992), the coping styles and their categorization into problem or emotion focused coping highlighted in this study may not be entirely valid for the sample. An existing factor structure was imposed on the data and factors derived from other populations may not be applicable in assessing coping in women in long term follow-up of breast cancer. Thirdly, with a larger sample, factor analysis of the WCQ may produce different coping scales to the ones imposed on the sample in this study. Care must also be taken in generalizing these findings to the larger population in terms of age. Additional research is warranted on young women living with breast cancer. Nonetheless, the present study specifies promising mechanisms for identifying those women who might be at risk for distress during long-term follow-up treatment and highlights the importance of attending to both well-being and distress in studying coping with stressful encounters.

According to Rowland (1996), there are three categories influencing patient's coping abilities: disease-related, individual and sociocultural. The latter category includes community attitudes, cultural differences and resources available. Taking into account the richness of the sociocultural milieu of South Africa it is likely that these results may reflect a small population and more research into other cultural groups may highlight a difference in the management of the demands of this disease. Furthermore, to my knowledge there

have been no empirical studies examining the relationship between sociocultural factors such as stigma attached to breast cancer and resources to help cope with responses to cancer. Thus, if a woman's breasts are connected to her feelings about her femininity and appeal, she will be devastated to lose one. On the other hand, if her breasts are perceived to be only part of a healthy, attractive body and self; then the possibility of a mastectomy loses its threat. The feelings related to breasts are very culture-bound. Apfel et al. (1994) related the story of the Amazons where women are very masculine and used to routinely perform a mastectomy on one side in order to use a bow and arrow without interference. Thus, it is important to understand the patient's culture in order to clarify his or her appraisal processes (Lightsey, 1996).

Mental health practitioners work towards their patients feeling good about themselves, facilitating good social relationships, doing productive work and dealing with stress effectively but the cultural route for meeting these needs may also be more varied. It may be that positive illusions and hope exist and are adaptive in most cultures however, the actual form they assume may be culturally dependent. Thus, according to Taylor and Armor (1996), in Western societies in which a person is respected for being an independent, active agent, positive illusions relate to "self-perceptions, perceptions of control and optimism about one's personal future (Taylor & Armor, 1996: p. 892). Nonetheless, in a culture that stresses interdependence, where the individual is only important in relation to the overall functioning of the social group, positive illusions may related to collective perceptions.

A possible limitation of the study is the role of self-reporting biases such as social desirability. One may be inclined to reject this problem since many women included personal, negative disclosure during the interview. Still, many of the women represented themselves as coping very well. One can ask, however, for whom this desirable self-presentation is made. Subject's desires to appear well-adjusted may be more for their own psychological benefit than for the researcher's (Taylor et al., 1984). However, it is vital to recall that women in this study represent a biased sample in that they are the survivors of

breast cancer and one could have perhaps anticipated their high level of coping, hope and PA. Moreover, according to Blieker et al. (1995), their examination of the extent to which diagnosis of breast cancer influences self-reports on measures of psychological traits indicates no significant changes. Thus, the interpretation of results from retrospective studies such as this one suggest that the personality trait of hope is a reflection of a stable trait.

It is essential that new personality constructs used in the field of PNI are elucidated carefully as it has been suggested by Boland and Cappeliez (1997) that there is "predictive overlap" with the Big Five that results in redundancy in research. In the case of hope, optimism and positive affectivity, we need to clarify their relationship as well as their value in the large constructs of neuroticism and extroversion (Boland & Cappeliez, 1997). However, according to Scheier et al. (1994: p. 1077) "rather than suggest that variables be combined into higher and higher order, superordinate constructs, which appears to be the prevailing trend" "researchers interested in neuroticism type variables should "decompose their variables into more basic units, such as optimism-pessimism etc, to determine more precisely the exact source of the associations that emerge". Lucas et al. (1996) agree and their studies suggest the value of examining a variety of global evaluations of psychological well-being as they found evidence for moderate to very good convergent validity as well as discriminant validity.

It is necessary to give some attention to the matter of "third variables" and alternative mediational possibilities. Research involving personality traits is inherently correlational and it is always difficult to know exactly what to attribute an outcome to. Given the nature of most personality data, it is always possible that some variable not measured, but related to the dimension under study, is actually responsible for any effects obtained. Thus, one must consider the possibility that the effects that have been ascribed to PA are due not to PA per se, but rather to concomitants of PA. These limitations notwithstanding, it is hoped that this study will enhance the field of psychooncology and expand the understanding of the ways in which women cope with long term follow-up of breast cancer treatment.

Public attention has recently been focused on breast cancer and there is now a national breast cancer campaign with the support of a pink ribbon issued by popular women's magazines. Thus, women in South Africa are learning to express their experiences into the fields of legislation, research and treatment. Such political proaction is psychologically therapeutic (Apfel et al., 1994). While it is not likely that medical personnel will prescribe such political involvement, the positive repercussions of transforming a passive, helpless state into an active, effective one is important in subjective well-being. This transformation has been highlighted in this study and the experience of interviewing women with breast cancer is overwhelmingly life-affirming. The women in this study who have lived with a potentially fatal illness focus on living and quality of life perhaps more than others, who seem

to have all the time in the world to wait and wonder about what is important. It has been a privilege to talk to women about their transformative personal work.

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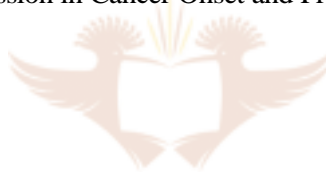
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