



Personality Traits, Self-Efficacy, Family Support And Knowledge Of Illness As Predictors Of Adaptive Coping Among Breast Cancer Patients

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Abstract

The study examined personality traits, self-efficacy, family support and knowledge of illness as predictors of adaptive coping among breast cancer. A total of one hundred and fifty (150) medically diagnosed breast cancer women who were present at Nnamdi Azikiwe University and St. Charles Borromeo Hospital Onitsha and have accepted to participate formed the sample of the study. Their ages ranged from 35 years-60 years with a mean age of 40 years and standard deviation of 6.28. The Big Five Personality by John, Donahue & Kentle(1991), General Self-efficacy Scale by Jerusalem and Schwarzer (1992), Family Support Scale by Procidano and Heller (2003) and Adaptive Coping Inventory by Kohn, O'Brien-Wood, Pickering and Decicco (2003) were used for data collection. The Multiple Linear Regression Analysis was used to test the four hypotheses. The first hypothesis which stated that "Personality traits would significantly and positively predict adaptive coping among breast cancer patient" was not endorsed ($t=.09, p<.93$). The second hypothesis which stated that "Self-efficacy would significantly and positively predict adaptive coping among breast cancer patient" was upheld ($t=2.49, p<.01$). The third hypothesis which stated that "Family support would significantly and positively predict adaptive coping among breast cancer patients was not sustained ($t=.46, p<.64$). The fourth hypothesis which stated that knowledge of illness would significantly and positively predict adaptive coping among breast cancer patients" was not upheld ($t=.67, p<.51$). The researcher recommended qualitative studies that dig deep into the reason behind the non-significant prediction of some of the studied variable especially personality and knowledge of illness.

Key word: Personality traits, Self-efficacy, Family support, Adaptive coping, Cancer and Breast cancer.

Introduction

Cancer is a global health problem. It is a leading cause of death and a major burden of disease worldwide (Cancer fact sheet 2014). Each year, tens of millions of people are diagnosed of cancer around the world, and more than half of the patients eventually die from it (Cancer fact sheet 2014). According to Ahmedin, Melissa and Desantis (2010), cancer has an estimated worldwide incidence of 10 million new cases per year, 46% of

which are in developed countries. According to World Cancer Research Fund International (2013) there are an estimated 14.1 million cancer cases around the world in 2012, of these 7.4 million cases were in women and 6.7 million in men. This number is expected to increase to 24 million by 2035. Cancer has been identified as a leading cause of death in economically developed countries and the second leading cause of death in developing countries. As elderly people are most susceptible to cancer, and the aging population continues to grow in many countries, cancer will remain a major health problem around the globe, (Xiamei and Herbert, 2007). The disease burden of cancer is carried more than half by countries and they lack the resources for cancer awareness and prevention, early detection, treatment or palliative options to relieve pain and human suffering (Jeffery, 2011).

Societies across the globe, regard breasts of women as a vital organ for sexuality, attractiveness, aesthetic outlook, baby feeding and sustainable body completeness (Hordern, 2000; Kaner, 2003). The most important health problem threatening the breasts, the symbol of womanhood, is probably the breast cancer. According to cancer facts and figures (2015), there will be an estimated 60, 290 new cases of breast carcinoma. In the United State of American (USA), one out of eight women is reported to have breast cancer (Crowe, Gordon & Shenk, 1992; Havell, Anderson & Blamey, 1998; Kaner, 2003).

According to World Health Organization (WHO), cancer is among the top three causes of death and 10% of recorded deaths are cancer related (Okyayuz, 1999). Epidemiological evidence suggests that without effective prevention and control programs, the burden of cancer, especially breast cancer, is likely to continue to increase globally (Ekpenyong, Akpan, Nyebuk, Daniel & John, 2011).

Cancer is a term used for disease in which abnormal cells divide without control and are able to invade other tissues. It can spread to other parts of the body through the blood and lymph. There are many kinds of cancer, and they include: breast cancer, brain cancer, cervical cancer, colon and rectal cancer, leukemia, kidney cancer, liver cancer, cancer of the lungs, lymphoma, multiple myeloma, ovarian cancer, pancreatic cancer, prostate cancer, skin cancer, and stomach-gastric cancer.

Breast cancer is one of the most challenging health problems of women in the industrialized nations and it also takes the top spot with prevalence rate of 26.28% of

cancer cases (Gocgeldi, Acikel, & Hadse, 2008). The high prevalence of breast cancer compared to other types of cancer could be decreased with early diagnosis. (Early Breast Cancer Trialists Collaborative Group, 1995). Breast cancer specifically is a type of cancer originating from breast tissue, most commonly from the inner lining of milk ducts or the lobules that supply the duct with milk. It is the most common malignancy and it is the leading cause of death among women (American Breast Cancer Society, 2007). Breast cancer can be detected in earlier ages in the recent years (Cam, Saka & Gumus, 2009). It can be characterized by abnormal metabolic pathway, evading of the immune system, ability to invade surrounding tissues and progression to metastasis (Weinberg & Hanahan, 2011). During the early years of a person's life, normal cells divide faster to allow the person to grow. After the person becomes an adult, most cells divide only to replace worn-out or dying cells or to repair injured parts. However, sometimes this orderly process goes wrong. The genetic materials deoxyribonucleic acid (DNA) of a cell can become damaged or changed, producing mutations that affect normal cell growth and division. This is because the damaged deoxyribonucleic acid (DNA) is caused by aberrations that happen while the normal cell is reproducing. When this happens, cells do not die when they should and new cells form when the body does not need them.

The spread of cancer from one part of the body to another is called metastasis. Most cancers are named from the organ or type of cell in which they start. For example, cancer that begins in the colon is called colon cancer, cancer that begins in the melanocytes of the skin is called melanoma, and cancer that begins in the breast is called breast cancer and so on. No matter where a cancer may spread, it is always named after the place it started. For instance, breast cancer that has spread to the liver is called metastatic breast cancer, not liver cancer. Likewise, prostate cancer that spread to the bone is called metastatic prostate cancer, not bone cancer. Some cancers do not form tumors, for example; leukemia is a cancer of the bone marrow and the red blood cell. Although the cause of breast cancer is not certain; it is accepted that genetic, environmental, hormonal, sociological and psychological factors play a role in its occurrence (Darendeiler & Yaman & Agaoglu, 2003). Despite being known as a disease occurring in late-ages, one quarter of breast cancer cases occur in women in their early and late 40's (Darendeiler, Yaman & Agaoglu, 2003). Breast

diseases have emotional and psychological effect other than the affected tissue organ. Personality structure of the women, her understanding about her gender and the attitude of her spouse, will all determine the psychological status (Ataseven, 1990; Kutlu & Pektekin, 1999). The medical and psychosocial factors that play roles in the compliance with drug regimen of the women with breast cancer may include symptoms of the disease, prognosis, treatment type, previous experiences about the disease, knowledge of the illness, threat level of the disease for the age of the women, plans about work and family, environmental support systems, cultural attitude towards the disease, personality structure, coping strength and skills (Ataseven, 1990; Kutlu & Pektekin, 1999).

Breast cancer may bring on negative emotions like social isolation, hatred, anger, the fear of any possible metastases and hopelessness and it may have some serious psychiatric effects like depression, anxiety disorder or a major mental illness. Moreover, it causes some other problem like being a financial burden on the family (Ozbas, 2006; Reece, 1994). Major problems women with breast cancer usually face are excruciating pain, emotional disturbances and disharmony in the family, work and social roles. In addition, the intense and prolonged treatment of cancer and the heavy side-effects of these treatments can also affect the daily living functions of women in a negative way and cause various psychological problems (Onat & Basanar, 2003).

Another problem anchors on the inability to cope adaptively with the ill-health among breast cancer patients. Breast cancer is a chronic illness thus most patients feel hopeless that they are not going to respond to treatment, not going to get well, have difficulty addressing their emotions and fears: This hopeless situation may result to frustration, denial, anger, bargaining, depression and sometimes acceptance (Kubler-Ross, 1969). These stages may lead to disharmony in work place, marriage and social interaction (Onat & Basanar, 2003).

The process of breast cancer treatment also has emotional impact which influences the general well-being of an individual. Psychology is interested in how individuals can improve or cope adaptively with various stressors including emotional disturbance and illness. Therefore, an adaptive coping is the key because the idea was simply that people who coped adaptively followed the principles underlying the choice of adaptive alternative responses to stressful situations and the rejection of maladaptive alternatives. Problem-

focused coping and emotion-focused coping are two such frequently identified styles (Carver, Scheier & Weintraub, 1989; Endler & Parker, 1990; Folkman & Lazarus, 1980). A third style of coping, emphasized more recently, is avoidance-focused coping (Amirkan, 1990; Endler & Parker, 1990). Problem-focused coping is directed at remedying a threatening or harmful situation; emotion-focused coping is directed at ventilating, managing or palliating one's emotional reaction to stressors; and avoidance-focused coping is directed at removing oneself mentally or physically from exposure to stressors. Accordingly, Kohn (1996) suggested that the concept of adaptiveness may prove more powerful predictively than coping style. Adaptiveness constitutes coping consistently so as to reduce distress or at worst, not aggravate it. This would entail consistently acting appropriately in the circumstances, notably the controllability of the stressors encountered. Thus, it requires consistently appropriate flexibility of response in stressful situations or adverse stress related cancer experiences.

Since adaptive coping is vital for general well-being of breast cancer patients; psychologist may as well access other important factors that could improve the level of adaptive coping among breast cancer patients. Such factors may include gender, age, and religious commitment (Muo, 2013). Other factors are personality traits, self-efficacy, family support and knowledge of illness.

Personality traits can be defined as a person's characteristic pattern of thinking, feeling, and behaving (Meyer, 2007). Meyer further opined that personality has to do with individual differences among people in behaviour pattern, cognition and emotion. McCrae and Costa (1999) described personality as a person's relatively stable feelings, thoughts, and behavioural patterns. It has been shown that personality has an important influence on the behaviour of individual in life situation (Barrick & Mount, 2001). Essentially, personality exerts its effects on human behaviour by shaping the manner in which a person experiences and perceive the world (Goodstein & Lanyon, 2009).

Consequently, everyone has a unique personality that differentiates him or her from other people. Understanding someone's personality gives clues about how that person is likely to act and feel in a variety of situations. To relate with people effectively, it is helpful to

understand the personalities of different individuals. Having this knowledge is also useful for interacting with people and helping people with adverse stress-related cancer experiences to have positive view of life amidst their condition.

Copious personality theorist presents their own definition of the construct based on their theoretical positions. It has been shown that personality is an important influence on the behaviour of individuals in traumatic situations such as breast cancer (Barrik & Mount, 2001). Essentially, personality exerts its effects on human behaviour by shaping the manner in which a person experiences and perceives trauma (Goodstein & Lanyon, 2009a). Studies show a high degree of stability in personality traits during adulthood (Nielsen & Einarsen, 2012; Nielsen, Mageroy, Gjerstad & Elinarsen, 2014).

There are different personality paradigms proposed by different scholars. Some of them include Costa and McCrae's five-factor model of Openness to experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism (OCEAN for its acronym), which is an empirical and lexical approach and Eysenck's three-factor model Extraversion, Neuroticism, and Psychoticism that constitutes a biological approach (Olweus, 2003), among others. The Costa and McCrae's five-factor personality dimension (i.e OCEAN) is the bases upon which personality traits in this study were evaluated. It appears that everyone has some degree of each of these traits. It is the unique configuration of how high a person rates on some traits and how low on others that produces the individual quality called personality (McCrae & Costa, 1999).

Adverse stress-related cancer experiences may have been linked to patients with higher scores of neuroticism alone (Breslau, David, Andreski, & Peterson 2001; Hyer, 2004) or in combination with introversion (Fauerbach, Lawrence, Schmidt, Muster, & Costa, 2000; and negativism with low agreeableness (Talbert, Braswell, Albrecht, Hyer, & Boudewyns, 2003). Personality factors may have been associated with Post Traumatic Stress Disorder, but have not been entirely consistent to predict that it is the causal factors; and this may be due to differences in the instruments used to assess personality. It is of paramount importance to understand the OCEAN dimensions of personality traits so as to understand how personality may likely enhance the development or reduction of stress among breast cancer patients. Equally, Negrusa and Negrusa (2012) opined that personality is a factor

that enhances the development of stress because it determines the level of reaction to life threatening situations.

According to McCrae and Costa (2003), OCEAN dimensions of personality traits involve the following: openness, it refers to an individual's imaginative, intellectual, and open-minded disposition; conscientiousness, it refers to the quality of being dependable, responsible and persevering; extraversion, it refers to gregariousness, assertiveness, and talkativeness; agreeableness, it reflects a good-natured, easy-going, cooperative characteristic, neuroticism. It reflects a tendency towards anxiousness, depression and affective instability.

Self-efficacy may be critical to coping adaptively among breast cancer patients. Self-efficacy is a person's belief in his or her ability to overcome the difficulties inherent in a specific task or in a particular situation. It influences the choices a person makes, the effort applied to a task and how long a person will persist when confronted with obstacles or failure. People tend to pursue the tasks for which they have high self-efficacy, and repeatedly it has been found to be a significant predictor of health-related behaviour (Howells, 2002). Self-efficacy could also be seen as the extent or strength of one's belief in one's own ability to complete tasks and reach goals. High or low self-efficacy determine whether or not someone will choose to take on a challenging task or "write it off" as impossible (Judge, 2002).

In addition, the concept, self-efficacy may be described as personal beliefs, judgments of one's capabilities to organize and execute courses of action required to attain designated types of performances. It is concerned not with the skills one has, but with the judgments of what one can do with whatever skills one possesses (Bandura, 1986). Bandura (1997) has defined self-efficacy as one's belief in one's ability to succeed in specific situations. Judgments of self-efficacy contribute to the quality of individual functioning by affecting how people feel, think, act and motivate themselves. In other words one's sense of self-efficacy could play a major role in how one approaches goals, task, and difficult challenges. Self-efficacy is the belief that one can perform a novel or difficult task or cope with adversity in various domains of human functioning. It could also be defined as an optimistic

self-belief of personal capability to cope efficiently and competently with a variety of situations. That is, a stable sense of competence to cope efficiently with stressful situation or adverse stress related cancer experiences. Self-efficacy has influence over people's ability to learn, to cope with sickness, their motivation and their performance, as people will often attempt to learn and perform only those tasks for which they believe they will be successful (Lunenburg, 2011).

According to Bandura (1982), self-efficacy beliefs come from four main informational sources: mastery experiences, vicarious experiences, verbal persuasion, and affective states. These components help individuals determine if they believe they have the capability to accomplish specific tasks. Williams and Williams (2010) stated that "individuals with high levels of self-efficacy approach difficult tasks as challenges to master rather than as threats to be avoided" (p. 455).

Family support is another variable which may be critical to coping adaptively among breast cancer patients. Spousal positive attitude may enhance adaptiveness in coping. Moreover, positive parental and sibling attitudes may contribute to the capacity of the cancer patient to cope adaptively with the exigencies of the illness which may include excruciating pain, side effects, prolong treatment and potential death in range. Family support refers to any kind of assistance whether financially, physically or emotionally from immediate families to a family member living with illness. The role of family caregivers has shifted from one of custodial care to a complex, multifaceted role which includes symptom management, monitoring for changes in hallmark symptoms, equipment care (e.g., infusion pumps), patient transport and advocacy, and management of activities and responsibilities the patient has forgotten because of illness. (Ataseven, 1990).

The oncology care system may not have fully incorporated "family support" for patients. Family support helps each family construct a solid foundation from which to foster the growth of its members. During advanced stages of illness, changes in family roles and the burden placed on family caregivers may negatively affect quality of life for breast cancer patients, as well as their caregivers and this is one of the problems breast cancer patients face (Barbara, Charles & Kazachik, 2001).

Another factor that might be important or related to adaptive coping among breast cancer patients is knowledge of the illness. A good knowledge of the illness may be linked to fear, anxiety, anger, confusion, and repression related to cancer generally. Therefore being knowledgeable about the process, stages and prognosis involve in management of breast cancer may be paramount in determining the level of adaptive coping among breast cancer patients. Prior knowledge of the illness may prepare the patient for the task ahead mentally, physically and psychologically. One can only feel that she is in control and make wise decision only if she has the facts and can compare the options. The better the individual understand the illness, management options, what its goals are, what the side effects may be and what can be done about them; the more the individual may tolerate it and the less ominous it may seem. Knowledge of illness may help to have a clear picture of the individual's prognosis and to realize that a diagnosis of breast cancer is not an automatic death sentence.

The present study assumes that adaptive coping is necessary for fighting breast cancer. It also assumes that adaptive coping as a psychological factor that has other moderating factors which could enhance or mare the efficiency of adaptive coping. Therefore, the present study selected some primary factors as personality (internal factor), self-efficacy (internal factor), family support (external factor) and knowledge of illness (internal and external factor) and examined if they can significantly predict (positively or negatively) with adaptive coping.

Theoretical Framework

General Adaptive Syndrome Theory (GAS)-The main theory that supports the biological mechanism of stress-related cancer experiences among breast cancer patients is the General Adaptive Syndrome (GAS) Theory. This theory was made popular by the works of a renowned endocrinologist Hans Selye (1976). He observed through his animal experiments that stress which can also be observed among breast cancer patients is a state of manifested syndrome which consist of all the nonspecifically induced changes in a biologic system. According to GAS there are three stages involved in stress symptoms manifestation:

1. The alarm reaction- This is when the adverse stress-related cancer experiences activate responses from the sympathetic and parasympathetic system (a coordinated physiological response involving the central nervous system and the peripheral nervous system of the organism). The hypothalamus-pituitary-adrenal (HPA) axis has a key role to play in physiological response to adverse stress-related cancer experiences.
2. Resistance stage- This commences if noxious stimulation or if adverse stress-related cancer experiences continue. While in normal conditions, activation of the stress system by stress-related cancer experiences results in adaptive endocrine metabolism and cardiovascular changes that help maintain homeostasis which can lead to excessive and prolonged activation of the stress system in a quest to restore homeostasis and this process can have psychological and biological consequences (Chrousos, 2009, Pervanidou & Chrousos, 2012).
3. Exhaustion stage- This ensues when the individual's capability of adapting to the consistent adverse stress-related cancer experiences is exhausted and the symptoms of alarm stage reappear without any resistance. At this stage irreversible tissue damage appears and if the stimulation persists, the individual suffer a lot of consequences. These consequences could be reduced by an internal factor such as the individual's self-efficacy which is derived from the Social Cognitive Theory, which states that a behavioural change is made possible by a personal sense of control. Self-efficacy is one of the main constructs of this theory and is the belief in one's capacity to organize and execute the causes of action required to produce given attainments. Self-efficacy refers to a person's belief in his or her ability to organize and execute a required course of action to achieve a desired result (Bandura, 1997).

According to Social Cognitive Theory (1997), self-efficacy pertains to a sense of control over one's environment and behaviour. Self-efficacy beliefs are cognition that determine whether healthy behaviour change will be initiated, how much effort will be expended, and how long it will be sustained in the face of obstacle and failures. Self-efficacy influences the

effort one puts forth to change risky behaviour and the persistence to continue striving despite barriers and setbacks that may undermine motivation.

Self-efficacy is directly related to healthy behaviour, Self-efficacy is addressed widely in the literature related to the management of chronic illness and is thought to be essential in effective disease management. In that it provides a foundation for personal motivation, increased well-being, and a sense of personal accomplishment. It also affects healthy behaviour indirectly through its impact on goals. Self-efficacy influences the challenges that people take on as well as how high they set their goals, individuals with high self-efficacy select more challenging goals and they focus on opportunities not on obstacles (DeVellis & DeVellis, 2000).

Dzewaltowski (1989) compared the predictive utility of the Theory of Reasoned Action (TRA) and Social Cognitive Theory in the field of exercise motivation. The exercise behaviour of students was recorded and then related to prior measures of different cognitive factors. The variables from theory of reasoned action predicted exercise behaviour. In addition, strength of self-efficacy, expected outcomes and satisfaction with level of activities were assessed. Individuals who were confident that they could adhere to the strenuous exercise program, who were dissatisfied with their present level of physical activity and who expected positive outcomes also exercised more. Theory of reason action variables did not account for any unique variance in exercise behaviour after controlling for the social cognitive factors. These findings indicate that Social Cognitive Theory provides powerful explanatory constructs. Other studies using constructs from different theories also show that the effects of self-efficacy on physical activity are stronger than those of other psychosocial determinants (Rovniak, Anderson, Winett, & Stephens, 2002). The amount of self-efficacy an individual possesses also has an impact on perseverance, self-confidence, and the amount of anxiety that person brings into adverse stress-related cancer experiences. This theory provided a framework for understanding how individuals cope with chronic illness such as cancer and how such coping has an impact on outcome expectations (Rachel, Merkel, & Wright, 2012).

Cancer, diabetes, chronic obstructive pulmonary disease, and arthritis are examples of diseases where self-efficacy theory has been used to guide the development of programs

aimed at increasing health promotion and outcome expectations in disease management (Rubin, 2001). Studies have also specifically focused on self-management and self-care issues related to cancer. Ajzen (1991) also accentuated in his theory of Planned Behaviour, the importance of self-efficacy in determining the choices people make and the amount of effort they will expend when facing any kind of health challenges or adverse stress-related cancer experiences.

According to the Theory of Planned Behaviour (TPB; Ajzen, 1991), intention is the most proximal predictor of behaviour. Cognitions that affect a specific intention are attitudes, subjective norms, and perceived behavioural control (perception about being able to perform a specific behaviour). A typical item to assess perceived control is, "It is easy for me to do xy." Self-efficacy and behavioural control are seen as almost synonymous constructs. However, self-efficacy is more precisely related to one's competence and to future behaviour. It plays a very substantial role in helping to determine the choices people make and the amount of effort they will expend when facing any kind of health challenge or adverse stress-related cancer experiences.

The Health Action Process Approach (Schwarzer, 1992, 2001) argues for a distinction between (a) preintentional motivation processes that lead to a behavioural intention and (b) post-intentional volition processes that lead to actual health behaviour. In the motivation phase, one needs to believe in one's capability to perform a desired action ("I am capable of initiating a healthier diet in spite of temptations"), otherwise one will fail to initiate that action. In the subsequent volition phase, after a person has developed an inclination toward adopting a particular healthy behaviour, the "good intention" has to be transformed into detailed instructions on how to perform the desired action. Self-efficacy influences the processes of planning, taking initiative, maintaining behaviour change, and managing relapses.

This General Adaptation Syndrome Theory (GAS) may not provide the entire vivid possible link between the studied variables and adaptive coping therefore a psychological, sociological and bio-psychosocial perspective which are rich in possible link between personality traits, self-efficacy, family support, knowledge of illness and adaptive coping is reviewed.

Transactional Theory of Stress- Psychologically, the adverse stress-related cancer experiences is conceived as a relationship with the environment that the individual appraises as significant to his or her well-being and in which the demands tax exceed available coping resources of the individual (Lazarus & Folkman, 1986). The above conceptualization of stress is the basis for (Lazarus, 2001) transactional theory of stress. The basic themes in this transactional mechanism of stress are appraisal and coping and the basic assumptions are;

- Adverse stress-related cancer experiences are the product of the transaction between the individual and the environment.
- The power of the transaction lies in the process of appraisal that binds the person and the environment.
- Two appraisal processes (primary and secondary) operate to determine what an individual thinks and does in a stressful encounter
- Primary appraisal involves goal relevance, goal congruence; and types of ego involvement.
- Secondary appraisal involves blame or credit; coping potential and future expectation.
- These appraisal processes offers a causal pathway- a bridge to those discrete emotions that best express the nature of stress experience (Lazarus, 2001).

Transactional coping involves the following:

- Coping involves cognitive (self-efficacy) and behavioural effort (knowledge of illness) made by the individual to master, tolerate or reduce internal and external demands and conflict (Folkman & Lazarua, 1980).
- During coping individual's actions are classified according to the characteristics of coping process which in this study includes self-efficacy, family support and knowledge of illness.
- Psychologically, coping involve both behavioural (knowledge of illness) and cognitive domains (self-efficacy).
- Coping is focused on different element of adverse stress-related cancer experiences.

Hartmann Instinct Theory (1937) also emphasized in this same concept of coping. In 1937, the psychoanalyst, physician, psychologist and psychiatrist Heinz Hartmann marked the evolution of ego psychology by publishing his paper, "Me" which was later translated into English in 1958, titled, 'The Ego and the Problem of Adaptation'. In the psychoanalytic ego psychology model, coping is defined as realistic and flexible thoughts and acts that solve problems and thereby reduce stress. The main difference between the treatments of coping in this model compared to the animal model of GAS theory is the focus on ways of perceiving and thinking about the person's relationship with the environment. Although behaviour is not ignored, it is treated as less important than cognition.

Another difference between the models is that the psychoanalytic ego psychology approach differentiates among a number of processes that people use to handle person-environment relationships. Hartmann focused on the adaptive progression of the ego through the mastery of new demands and tasks. In fact, according to his 'adaptive point of view', once infants were born, they have the ability to be able to cope with the demands of their surroundings. Ego psychology further stressed the development of the personality and of 'ego-strength' in adaptation to social realities. Within the animal model, coping is frequently seen as acts that control aversive environmental conditions, thereby lowering psychophysiological disturbance.

In addition, the German Freudian psychoanalyst Karen Horney (1940s) developed her mature theory of coping. She proposed that individuals cope with anxiety produced by feeling unsafe, unloved, and undervalued by disowning their spontaneous feelings and developing elaborate strategies to define interpersonal relations, one describing psychologically healthy individuals, the others describing neurotic states. The healthy strategy, she termed 'moving with', is the relationship which psychologically healthy people develop adaptive coping. It involves compromise, in order to move with, there must be communication, agreement, disagreement, compromise, and decision. The three other strategies she described-'Moving toward', 'Moving against' and 'Moving away' - represented neurotic, unhealthy strategies people utilize in order to protect themselves. Horney investigated these patterns of neurotic needs (compulsive attachments) which every individual needs.

Sociological Theory of Stress

Pearlin, Morton, Elizabeth and Mullan (1981) conceived a sociological model to explain the mechanism of stress. According to Pearlin, et al (1981), three fundamental concepts form the core of the stress process and they include:

- Stressors: These are conceptualized as external (environment) or internal (biological or psychological factors) that challenge an individual to adapt or change.
- Moderators: These are conceptualized as the social resources (family support) or personal resources (self-efficacy and knowledge of illness) that potentiate the effects of stressors or change the situations that are producing the stressors. These mediators include coping strategies which in this study are self-efficacy, family support and knowledge of illness.
- Stress outcome: These are conceptualized as the biological and psychological conditions resulting from exposure to stressors after accounting for the moderators.

One of these moderators which are conceptualized as the social resources that potentiate the effects of stressors or change the situation that are producing the stress was buttressed by Bowen Theory of family support. Bowen (2011) originated a family system theory, a theory of human behaviour that views the family as an emotional unit and uses systems thinking to describe the complex interactions in the unit. It is the nature of a family that its member is intensely connected financially, physically and emotionally. Often people feel distant or disconnected from their families, but this is more feeling than fact. Family members so proudly affect each other's thoughts, feelings and actions that it often seems as if people are living under the same 'emotional skin.' People solicit each other's attention, approval and support and react to each other's needs, expectation, and distress.

The connectedness and reactivity makes the functioning of family members interdependent. According to Bowen a change in one person's functioning is predictably followed by reciprocal change in the functioning of others. Families differ somewhat in the degree of interdependence, but it is always present to some degree. The emotional interdependence presumably evolved to promote the cohesiveness and cooperation families require protecting, sheltering and feeding their members.

According to Bowen, heightened tension however, can intensify these processes that promote unity and teamwork, and this can lead to problems that may be stressful for the individual. When family members get anxious, the anxiety can escalate by spreading infectiously among them. As anxiety goes up, the emotional connectedness of family members becomes more stressful than comforting. Eventually, one or more members feel overwhelmed, isolated, or out of control.

Bowen's theory has eight interlocking concepts. He formulated the theory by using system thinking to integrate knowledge of human species as a product of evolution and knowledge from family research. A core assumption is that an emotional system that evolved over several billion years governs human relationship system. People have a thinking brain, language, a complex psychology and culture, but people still do all the ordinary things or other forms of life. The emotional system affects most human activity and is the principal driving force in the development of clinical problems. Knowledge of how the emotional system operates in one's family, work and social system reveals new and more effective options for solving problem in each of these areas.

Family Support has become a major strategic orientation in services for children and families. It now occupies a significant place within an array of care and welfare interventions (Dolan, Canavan, & Pinkerton, 2006).

In addition, Spanier Theory of Family support (1984) postulated a theory that states that families with a high degree of paternal involvement are more cohesive and thereby reduces stress. The pattern of fathering also reflects the quality of the marital relationship. He pointed out that marital quality can be powerful predictors of fathering. He assumed that fathers who are involved in child care are not in conflict with their spouses or are at least available to care for their children. When considering family variable that affect individual's mental health, enduring family conflict is seen to have the most negative impact.

It is essential for policy makers to realize the extent to which community is of central importance for children, not marginal, alongside the family and school. It is where children learn and develop, (Henderson, 2000).

The Family Support Strategy is grounded in the firm belief, in the fundamental importance of families and family life for individuals' communities and society in general (Turnbull, Beegle & Stowe 2009). In using the term 'family support' the forum is referring to a set of

beliefs and an approach to strengthening and empowering families and communities so that they can foster the development of children, youth and family members' thereby avoiding stress-related cancer experiences (Turnbull et al., 2009). In relation to services, basic policy concepts have included family-centeredness, capacity-based services, empowerment and participatory decision making, individualized and appropriate services, among others.

In this paradigm, adverse stress-related cancer experiences in relation to the context of interest are conceptualized in terms of reciprocal interaction between social mechanism and psychological mechanism; psychological and biological mechanisms; biological and social mechanism; or triad reciprocal interaction among these three mechanisms. In other words, social experiences such as pressure from adverse stress-related cancer experiences among breast cancer patients can cause alarm which activates the biological autonomic process or it may involve psychological appraisal and coping strategies such as self-efficacy which uses biological mechanisms to form resistance and probably exhaustion if stressor are not managed and at this stage stress symptoms will ensue.

There are ample empirical literatures that support the assumptions of these theories. O'Baugh, Wilkes and Luk (2003), in their study, determined that the opinions of the cancer patients in relation to positivity have it that, the factors that affect the patient's attitudes to coping are the individual's self-efficacy, ample information about breast cancer, family support and social support. This finding supports the positions of the General Adaption Syndrome Theory (GAS), Transactional Theory of Stress, and Sociological Theory of Stress which were stated above.

As the world marked the 2014 World Cancer Day on 4th February, the World Health Organization (WHO) indicated that eighty-four (84) million people may die of the disease by 2016. The National Cancer Prevention Programme (NCPP) in 2014 says that no fewer than eighty thousand (80,000) Nigerians die from various forms of cancer including breast cancer annually, with an estimated ten people dying from cancer every hour.

Cancer is an international public health issue. It has not been just a health problem but also a social and economic problem in Nigeria. It could be found in almost every population in the world. Its scourge to the society is enormous and its impact on health and economy is

substantial. It is now affecting many people in the workforce, causing a major and deleterious impact on both individual and national productivity (Ekpenyong, Akpan, Nyebuk, Daniel & John, 2011). Some prominent Nigerians have died of this non-communicable and terminal disease, such as, the Former Director General of National Agency for Food and Drug Administration and Control (NAFDAC), Prof. Dora Nkemdilim Akunyili, died of cancer of the cervix on 7th June, 2014. However, thanatology which is the study of the effects of death and dying, especially the investigation of ways to lessen the suffering and address the need of the terminally ill and their survivors, tries to bring in some psychological variables that can help breast cancer patients.

Pertinently, a diagnosis of cancer is one of the most psychological worries and devastating things one can hear. The possible psychological consequence or implication of breast cancer, its treatment and side effects are stressors to the individuals. After such shocking news, it is normal to feel a range of emotions, from despair to rage, even to the extent of dying yet cannot be cured. Even mastectomy and its excruciating pain has its own psychological implication, yet little attention, to the best of the researcher's knowledge, has been paid to what actually seems to be the best assistance such patients may ever receive; therefore, research effort need to be expanded more on ways to relieve the pain and psychological suffering. One of such assistance could be finding the moderating factors that increases the patient's adaptive coping since adaptive coping is one of the mechanisms that aids survival. It also wishes to find answer to the following questions:

1. Would personality traits (Openness to experience, Conscientiousness, Extraversion, Agreeableness and Neuroticism) significantly and positively predict adaptive coping among breast cancer patients?
2. Would self-efficacy significantly and positively predict adaptive coping among breast cancer patients?
3. Would family support significantly and positively predict adaptive coping among breast cancer patients?
4. Would knowledge of illness significantly and positively predict adaptive coping among breast cancer patients?

Purpose of The Study

The general purpose of this study is to examine personality traits, self-efficacy, family support and knowledge of the illness as predictors of adaptive coping among breast cancer patients in Nnamdi Azikiwe University Teaching Hospital, Nnewi. Specifically, the objectives of this study are:

1. To determine whether personality traits (Openness to experience, Conscientiousness, Extraversion, Agreeableness and Neuroticism) would significantly predict adaptive coping among breast cancer patients.
2. To determine whether self-efficacy would significantly predict adaptive coping among breast cancer patients.
3. To determine whether family support would significantly predict adaptive coping among breast cancer patients.
4. To determine whether knowledge of illness would significantly predict adaptive coping among breast cancer patients.

Hypotheses

1. Personality traits (Openness to experience, Conscientiousness, Extraversion, Agreeableness and Neuroticism) would significantly and positively predict adaptive coping among breast cancer patients.
2. Self-efficacy would significantly and positively predict adaptive coping among breast cancer patients.
3. Family support would significantly and positively predict adaptive coping among breast cancer patients.
4. Knowledge of illness would significantly and positively predict adaptive coping among breast cancer patients.

METHOD

Participants

One hundred and fifty (150) medically diagnosed breast cancer women participated in this study. These patients were registered with Nnamdi Azikiwe University Teaching Hospital Nnewi, Anambra State and were booked to receive medical attention for three quarters of

the year. The participants were between the ages of 35 years and 60 years, with the mean age of 40 and standard deviation of 6.28.

The sample techniques is purposive sampling: as only those that have been diagnosed with breast cancer and have been given appointment for three quarter of the year were selected to participate in the study. This is to ensure that the patients were surveyed at their own convenient within the space of time.

Biographic data showed that all the participants were Christians and 104 (69.3%) women were married, 16 (10.7%) women were divorced while 30 (20.0%) women were widows. The biographic data also revealed that 20 (13.3%) women had SSCE as their highest educational levels; 36 (24.0%) women had HND or OND as their highest educational levels while 94 (62.7%) women had BSc qualifications as their highest educational levels. On prior knowledge of illness, data showed that 114 (76.0%) had prior knowledge of the illness while 36 (24.0%) had no prior knowledge of the illness.

Instruments

Four instruments were used in this study. They include; big five inventory, general self-efficacy scale, family support scale and adaptive coping inventory.

Big Five Inventory (BFI) by John, Donahue & Kentle (1991):

This is a 44-item inventory developed by John et al., (1991). It is one of the six psychological instruments which assess personality from a five-dimensional perspective. The essence of the perspective is that personality characteristics can be dissolved into five broad dimensions which are distinct from one another. The five dimension or subscales of BFI are Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness. It is scored using Likert response pattern of 1 to 5, where 1 = Disagree strongly, 2 = Disagree a little, 3 = Neither agree or disagree, 4 = Agree a little, and 5 = Agree strongly. John et al., (1991) reported a Cronbach's alpha reliability coefficient of .80 and a 3-month time interval test-retest reliability coefficient of .85. On validity, John et al., (1991) reported that BFI has mean convergent validity coefficients of .75 and .85 with Big Five Instruments authored by Costa and McCrae (1992) and Goldberg (1992) respectively. The divergent validity coefficient obtained by Umeh (2004) with University Maladjustment Scale (Kleinmuntz, 1961) were .05 for Extraversion, .13 for Agreeableness, .11 for

Conscientiousness, .39 for Neuroticism, and .24 for Openness. Umeh (2004) reported the norms for Nigerian samples for male (M) and female (F) on each of the subscales. Accordingly, on Extraversion, M = 28.45 and F = 27.10; on Agreeableness, M = 29.75 and F = 28.73; on Conscientiousness, M = 29.10 and F = 29.60; on Neuroticism, M = 23.43 and F = 24.48; and on Openness, M = 38.07 and F = 35.18.

The General Self-Efficacy Scale by Schwarzer & Jerusalem (1992):

This is a 10-item standardized scale on general self-efficacy. It was developed by Schwarzer and Jerusalem (1992). The self-efficacy scale was organized for scoring as a four (4) point Likert type scale with the options of 1= Not at all true; 2= Hardly true; 3= Moderately true and 4= Exactly true. For the need of the research, the researcher conducted a pilot test using twenty (20) breast cancer patients who have the same characteristics as the participants to be used in the final study from St. Charles Borromeo Hospital Onitsha, Anambra State. The items were subjected to split half reliability and each half was treated as an alternative form of the same measurement. The test has a reliability of 0.90 and a Cronbach alpha co-efficient of 0.92 was obtained. A concurrent validity of .42 was obtained when correlated with index of Self-esteem Scale (ISE) by Hudson (1985).

Family Support Scale by Procidano & Heller (2003):

This is a 20-item scale on family support. It was developed by Procidano and Heller (2003). The family support scale was organized as a three (3) point Likert type scale with the options of 1= Yes; 2= No and 3= partially. For the need of the research, the researcher conducted a pilot test using twenty (20) breast cancer patients who have the same characteristics as the participants to be used in the final study from St. Charles Borromeo Hospital Onitsha, Anambra State. The items were subjected to split half reliability and each half was treated as an alternative form of the same measurement. The test has a reliability of 0.80 and a Cronbach alpha co-efficient of 0.88 was obtained. A concurrent validity of .50 was obtained when the instrument was correlated with family support sub-scale of multi-dimensional social support scale by Zemel, et al (1988).

Adaptive Coping Inventory by Kohn, O'Brien-Wood, Pickering & Decicco (2003):

This is a standardized 30-item psychological inventory on adaptive coping. It was developed by Kohn, O'Brien-Wood, Pickering and Decicco (2003). The adaptive coping

inventory was organized as a five (5) point likert type scale with the options of 1= Strongly Disagree; 2= Disagree; 3= Unsure; 4= Agree and 5= Strongly Agree. Kohn et al (2003) provided the original psychometric properties for Canadian samples while Umeh (2004) obtained for Nigeria using 120 participants, a mean of 107.67 for males, 92.58 for females and a mean total of 100.13. Umeh (2004) also obtained a concurrent validity coefficient of .10 and .18 with extraversion and openness subscales respectively of Big Five Inventory (BFI).

Procedure

Before conducting the research proper, letters of recommendation for ethical approval were issued from the Director of Clinical Services, NAUTH Nnewi and the Consultant in charge of the General Surgery Unit, Department of Surgery NAUTH Nnewi. Finally, when the full ethical approval was given, the informed consent of the participants were sought and obtained.

On the agreed dates, the researcher went to the hospital and met the consultants during their clinic days. When they finished consulting with patients, they referred the patients to the researcher. Some of the health workers, nurses and house officers who were running the clinics with the consultants and some patients' relations assisted the researcher in the distribution of the instruments to both the in-patients and out-patients when they were numerous to handle. The researcher educated the nurses and the house officers on how to administer the instruments. The clinic consultation lasted for three months in order to collect the data.

Out of 170 copies of the questionnaire that were administered to breast cancer patients, a total of 150 copies were collected back. Five patients that were given the questionnaire died before the completion of the research and the remaining fifteen copies of the questionnaire were incorrectly filled; therefore one hundred and fifty (150) questionnaires were used for the actual study.

At the end of the consultation the researcher had a brief psycho-education session with her clients. Psycho-education here refers to the education offered to individual with mental health condition and their families to help empower them and deal with their condition in an optimal way. The goal of the researcher is for the clients to understand and be better or

able to deal with the presented illness whether the etiology is predisposing, precipitating or perpetuating. Also, the clients' own capabilities, resources and coping skills are strengthened and used to contribute to their own health and well-being on a long term basis.

Design And Statistics

This research adopted a predictive design. Based on the research design, the researcher employed the statistical tool of Multiple Linear Regression for data analysis and testing the hypotheses of this study.

Results

Table1: Summary Table of Personality Traits (Openness to experience, Conscientiousness, Extraversion, Agreeableness and Neuroticism), Self-efficacy, Family Support and Knowledge of illness as Predictors of Adaptive Coping.

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	75.616	15.937		4.745	.000
	Openness	-.071	.143	-.070	.496	.620
	Conscientiousness	-.028	.146	-.023	-.190	.849
	Extraversion	-.29	.155	-.25	-.184	.016
	Agreeableness	.109	.206	.072	.528	.599
	Neuroticism	.059	.154	.055	.385	.701
	Self-Efficacy	.638	.256	.225	2.494	.014
	Family Support	-.087	.190	-.041	-.459	.647
	Knowledge of BC	1.627	2.437	.055	.668	.505

a. Dependent Variable: Adaptive Coping

Discussion

The study investigated personality traits (Openness to experience, Conscientiousness, Extraversion, Agreeableness and Neuroticism), self-efficacy, family support and knowledge of illness as predictors of adaptive coping among breast cancer patients. The result of the multiple linear regression analysis conducted revealed that of all the factors or variables studied, only extraversion and self-efficacy had high prediction on adaptive coping among the studied population. Detailed analysis however revealed this prediction to be positive and significant. Indeed, possible explanations regarding this finding could be traced to different theoretical standpoints and empirical discoveries.

In terms of theoretical assumptions, transactional theory of stress and coping, which proposed that coping involves cognitive and behavioural efforts made by the individual to master, tolerate or reduce internal and external demands and conflicts (Folkman & Lazarus, 1980; Nwafor, 2015) readily stands out to explain this link. It is plausible therefore to opine that these cognitive and behavioural efforts in the context of interest include self-efficacy which helps the individual to either master, tolerate or reduce the adverse stress-related experiences; in this case, breast cancer.

Furthermore, another theoretical assumption that could be linked to this finding is GAS theory of stress and coping (Selye, 1976), which offered some explanations on the mechanism that operate to enhance the positive prediction between extraversion and adaptive coping and self-efficacy and adaptive coping. According to Selye, three stages are involved in stress symptoms manifestation and they include: The alarm reaction, resistance stage and exhaustion stage. This exhaustion stage ensues when the individual's capability of adapting to the consistent adverse stress-related cancer experiences is exhausted and the symptoms of alarm stage reappear without any resistance. At this stage irreversible tissue damage appears and if the stimulation persist the individual suffer a lot of consequences. In this regard, the individual can cope adaptively with these consequences by initiating an internal coping mechanism or strategy such as personality trait and high self-efficacy.

Moreover, this finding validates early empirical discoveries that investigated the association between self-efficacy beliefs and treatment adherence among breast cancer patients. The investigators demonstrated that self-efficacy was a significant predictor of adherence to diet and adaptive coping (Kavanagh, Gooley & Wilson, 1993). Besides the corroboration with Kavanagh et al. (1993), the study by Rottmann, Dalton, Christensen and Kirsten (2010) supports the current finding. According to these authors, self-efficacy was a significant predictor of an active adjustment style, coping and emotional well-being in breast cancer patients. Also, the finding by Mosher et al (2010) who found that self-efficacy predicted adaptive coping positively among breast cancer patients is in line with the present finding.

Besides the aforementioned, the study by Hattori-Hara, Luisa and González-Celis (2013) who examined the association between adaptive coping strategies and self-efficacy in

management of breast cancer patients and concluded that there are positive predictions between self-efficacy beliefs in managing breast cancer and adaptive coping also show alliance with the present study. It is not out of place therefore to opine that one's personality trait especially extraversion and one's sense of self-efficacy can play a major role in how an individual approaches goals, tasks, and difficult challenges such as breast cancer.

However, it was surprising that other personality sub-scales traits (openness to experience, conscientiousness, agreeableness and neuroticism) and knowledge of illness did not have a significant prediction of adaptive coping though detailed analysis showed the prediction to be positive. This could be attributed to a lot of psychological factors such as intelligence, emotions and overuse of some ego defense mechanism such as denial or suppression. In this regard, an individual's level of intelligence can impinge on the prior knowledge of breast cancer; likewise an individual emotional reaction can affect the personality of the individual. This follows that despite the extent of one's knowledge about an illness, overuse of some defense mechanism such as denial or suppression could make a cancer patient's health to deteriorate thereby affecting the individual's coping mechanism notwithstanding how early the illness was detected.

Nevertheless, a qualitative study would have given at least hints on why these variables did not predict adaptive coping. In adopting qualitative study, sessions of interactions using developed themes would help to bring to bay the underlying reasons behind these outcomes.

In line with the last two findings, hypothesis III was not upheld because family support had non-significant and negative prediction on adaptive coping among the studied population. Though, this is not obviously surprising but to an extent overwhelming, a possible explanation to this revelation could be associated with different family factors, which include but not limited to unsupportive family system and family background, such as obscure or ill ventilated environment that have the propensity to contribute to an extent to this effect.

Summarily, the findings have indeed showed that the incidence of breast cancer, which has the propensity to trigger some mental health issues such as fear, anxiety, anger, confusion, and repression, could be basically adapted with the help of enhanced self-efficacy. In this regards, one can only feel that she is in control and make wise decision only if she has the facts and can compare the options. The better the individual understands the illness, what its goals are, what the side effects may be and what can be done about them, the more the individual tolerates it or copes adaptively with it, and the less ominous it will seem. It may help to have a clear picture of the individual's positive prognosis and to realize that a diagnosis of breast cancer is not an automatic death sentence.

Implication of The Study

This study very strongly has revealed that personality trait (extraversion) and self-efficacy significantly and positively predicted adaptive coping among women with breast cancer. This is implicated on the positive prognostic factors that will help breast cancer patients to cope adaptively irrespective of the etiology being predisposing, precipitating or perpetuating, the individual's personality trait (extraversion) and self-efficacy is still a strong hold.

At the center of these entire model is hopefulness, creation of hope among breast cancer patients can go a long way to improve their adaptive coping there by elongating their life span.

Another implication derived from the findings of this study is the need for clinicians or health care personnel to consider the inclusion of individual's self-efficacy on the package for modification or treatment and management of breast cancer patients in their clinical work. Furthermore, breast cancer patients should also be encouraged to join support groups which are formed by similar people who were diagnosed with breast cancer and experience the same level of difficulties and government should establish a breast cancer clinic like that of antenatal clinic where an oncology nurse, a clinical psychologist etc. can render mental health care services and stress management techniques such as biological feedback, meditation, deep breathing, progressive relaxation, hypnosis and self-hypnosis, visualization and creative imaging and other therapies among breast cancer patients.

The study has provided some useful empirical basis for the need to include biopsychosocial and emotional dimensions in the treatment package of breast cancer patients to take care of the psychological and emotional needs of the patients.

Finally, the findings may stimulate further research on adaptive coping mechanism among other kinds of cancer patients in other localities and this work therefore, serves as a reference source to researchers who will embark on a similar topic in the future.

Recommendations

On the completion of this study, the researcher would like to make the following recommendations for future research on breast cancer patients:

- Qualitative studies that dig deep into the reason behind the non-significant prediction of some of these studied variables especially family support and knowledge of illness.
- Efforts should be made to accommodate cross-cultural studies for wider ecological validity. Moreover, further studies of this nature need to be conducted in Nigeria to provide grounds for comparison, and to validate the findings of the study.
- More research should be conducted on other kinds of cancer since different kinds of cancer patients have different coping strategies. This will help to increase the availability of literature materials with respect to the above concept.
- These results suggest that future research should explore the possibility that psychosocial treatment of breast cancer survivors is more effective.

Conclusion

Breast cancer, an international public health issue has not been just a health problem but also a social and economic problem in the world. It could be found in almost every population in the world. Its scourge to the society is enormous and its impact on health and economy is substantial. It is now affecting many people in the workforce, causing a major and deleterious impact on both individual and national productivity yet cannot be cured. This necessitated the adaptive coping mechanism and the rejection of maladaptive alternatives among breast cancer patients.

Although, a good number of researches had been carried out on coping and breast cancer, not much has been done on the relatedness of personality traits (openness to experience, conscientiousness, extraversion, agreeableness and neuroticism), self-efficacy, family support, knowledge of breast cancer and adaptive coping therefore bringing the need for the research.

Among other theories, the bio-psychosocial model intertwines and integrated the biological, psychological and social mechanism of stress and its coping strategies. This perspective holds that the process involved in stress accumulation impact and adjustment or management could only be completely understood through the integration of the knowledge gained from biological, psychological and social mechanisms of stress.

Empirical evidence for this study strongly suggests that personality trait (extraversion) and self-efficacy significantly and positively predicted adaptive coping among the studied breast cancer patients

It therefore advocated the need for clinicians or health care personnel to consider the inclusion of individual's personality trait (extraversion) and individual's self-efficacy on the package for modification or treatment and management of breast cancer patients in their clinical work.

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