

**SCHOOL OF NURSING AND MIDWIFERY  
COLLEGE OF HEALTH SCIENCES  
UNIVERSITY OF GHANA  
LEGON**

**EXPLORING FACTORS INFLUENCING RESILIENCE IN WOMEN WHO  
COMPLETED CHEMOTHERAPY FOR BREAST CANCER IN ACCRA  
METROPOLIS**

**By**

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PHILOSOPHY IN NURSING DEGREE**

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**DECLARATION**

I, Gbande Sulleh do hereby declare that this thesis is my work which was supervised by Professor Lydia Aziato and Dr. Lilian Akorfa Ohene, of the School of Nursing and Midwifery, University of Ghana. This thesis has not been submitted anywhere in any form for the award of a diploma or a degree. I duly acknowledged in the text and list of references authors and publishers whose work I have used in this study

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## **DEDICATION**

This work is dedicated to God Almighty for seeing me through two years of academic success.

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## LIST OF ABBREVIATIONS

1. BC- Breast Cancer
2. P-Participant
3. US- United States
4. UK-United Kingdom
5. IBCR- Ibadan Cancer Registry
6. KBTH- Korle-Bu Teaching Hospital
7. BCS- Breast Cancer Survivor
8. HFS- Hand-Foot Syndrome
9. DNA-Deoxyribonucleic Acid
10. RNA- Ribonucleic Acids
11. QOL-Quality Of Life
12. ASD- Acute Stress Disorder
13. POST- Post-Traumatic Stress Disorder
14. BMT- Bone Marrow Transplant
15. SES- Socio-Economic Status
16. PFC- Problem Focus Coping
17. EFC- Emotional Focus Coping
18. NHIS- National Health Insurance Scheme
19. WHO-World Health Organization
20. AIHW- Australia Institute Of Health And Welfare
21. MOH- Ministry Of Health
22. GHS-Ghana Health Service

### **Abstract**

Breast cancer is a major public health concern across the world and has attracted the attention of policy makers and various health care professionals. The most common treatment in Ghana is chemotherapy. Chemotherapy brings about unpleasant and traumatic experiences due to the effects of the drugs. Even though several studies have highlighted the negative results of chemotherapy among cancer patients, recent literature show an improvement in breast cancer survival rate. The purpose of this study was therefore to explore the factors influencing resilience in women who completed chemotherapy for breast cancer in the Accra metropolis. The I-resilience model was the organising framework for this study. A qualitative exploratory descriptive design was adopted to collect data. Both purposive and snowball sampling techniques were used for data collection. Data reached saturation by the 12th participant. A semi-structured interview guide was used for data collection. Data collection and analysis occurred concurrently. All interviews were audio-recorded with consent from the participants and transcribed verbatim. Data was analysed using thematic content analysis. During the study, anonymity and confidentiality were ensured. The four themes that emerged were: The burden associated with breast cancer diagnosis and treatment, personal traits (purposiveness and confidence) that influence resilience, support systems that influence resilience and strategies breast cancer patients adopt to survive. Most of the participants experienced fatigue, depression, fear of disease reoccurrence and financial loss as burdens of cancer. Factors identified to influence resilience were hope, self-esteem, confidence, optimism, social and spiritual support and preparedness using past experiences. It was recommended that social and medical support and adaptation strategies associated with resilience be enforced to improve the health and wellbeing of diverse cancer survivors.

## CHAPTER ONE

### 1.0 Introduction

This chapter deals with the introduction of the entire study. It begins with the background information followed by the problem of the study, purpose of the study, objectives of the study, questions of the study, significance of the study and operational definition of terms.

### 1.1 Background of the Study

Breast cancer (BC) is a major public health concern across the world and has attracted the attention of policy makers and various health care professionals (Allemani et al., 2018). According to research, breast cancer is the second most regularly diagnosed tumour and the second driving reason for malignancy death among women with an estimated 1.67 million new cancer cases diagnosed in 2012 (Ferlay et al., 2013; Globocan, 2012; Torre et al., 2015). It is the most widely recognized tumour in women both in high income or low-income countries with marginally more cases in lower income nations (883,000 cases) than in high income nations (794,000) (Globocan, 2012). Prevalence rates differ almost four-fold over the world regions, with rates extending from 27 for each 100,000 in Middle Africa and Eastern Asia to 92 in Northern America (Globocan, 2012).

In the United States (U.S), apart from skin cancers, BC has been found as the most common cancer occurring in women and is the second leading cause of cancer deaths with about 39,520 women dying yearly (DeSantis, Ma, Bryan, & Jemal, 2014) and 61,000 new breast cancer cases were diagnosed in 2016 (Siegel, Miller, & Jemal, 2016). Similarly, in the United Kingdom (UK) BC accounts for 30% of all cancers in women and there were 55,222 new cases in 2014, while the number of deaths was

11,433 per year (United Kingdom Cancer Research Institute, 2014). Again, according to Australian Institute of Health & Welfare, (2013); Gallager, (2016), the incidence of BC in 2016 in Australia alone was estimated at 16,084, making BC the second most common cancer in Australia with future projection that, individuals being diagnosed of BC by their 85 birth-day will be 1:8 in females.

In Sub-Saharan Africa, and Nigeria in particular, the age standardized incidence rate for all invasive BC from the Ibadan Population Based Cancer Registry (IBCR) was 66.4 per 100,000 men and 130.6 per 100,000 women (Jedy-Agba et al., 2012). In Ghana, even though there is no cancer registry, a study by Ohene-Yeboah and Adjei (2012) revealed that, breast cancer is the single most dominant cause of tumour deaths among women. Ohene-Yeboah and Adjei (2012) further explained that breast cancer was responsible for 75% of probable breast lump in Ghanaian women with about 85.2% having upper ranked carcinomas. Similarly, Laryea et al. (2014) researched on incidence of breast cancer cases in Ghana and indicated that majority of the breast cancers recorded among females accounted for 33.9% of females who attended Komfo Anokye Teaching Hospital. Also, an unpublished report on BC incidence at Korle-bu Teaching Hospital's Oncology Dependent annual report from 1<sup>st</sup> January 2016 to 31<sup>st</sup> December 2016 stood at 3,084, while those who successfully completed their treatment and were discharged stood at 3,020. Majority (62%) of these patients are treated with chemotherapy in Ghana (Clegg-Lampsey & Hodasi, 2007).

American Cancer Society (2015) noted that, chemotherapy is a cancer treatment modality whereby drugs are used to kill the cancer cells and can be given intravenously (infused into a vein) or by mouth. The medication goes through the

circulatory system to reach the malignant cells in many parts of the body (American Cancer Society, 2015). Chemotherapy can be given as a single therapy or combination of therapy; the blend of chemotherapy drugs has clinical advantage regarding expanded first-line treatment of metastatic breast malignancy (Loi et al., 2013). Similarly, Burnett et al. (2017) recommend the combination of sulforaphane to any cancer line of treatment since it prevents the multiplication of cancer cells. Some of the chemotherapy drugs used for breast cancer treatments are Paclitaxel, Capecitabine, Cisplatin, Liposomal and Epirubicin (American Cancer Society, 2015; Carbognin et al., 2015).

The wide use of these chemotherapy drugs may bring about unpleasant life experiences from adverse effects of the drugs which may be viewed as a traumatic experience influencing every part of a person's life (Butow, Fardell, & Smith, 2015; Field et al., 2008; Gallager, 2016; Hollingshaus & Utz, 2013). These negative experiences can be physical (Gallager, 2016; Hefferon, Grealy, & Mutrie, 2009; Kelly & Dowling, 2011), psychological (Bennett, Goldstein, Friedlander, Hickie, & Lloyd, 2007; Doyle, 2008; Lassere & Hoff, 2004), social (Butow, Fardell, et al., 2015; Jefford et al., 2008) and financial stress (Bennett et al., 2007; Jefford et al., 2008; Kelly & Dowling, 2011a; Torres, Dixon, & Richman, 2016).

Present data indicate a growing number of women with BC are navigating the disease burden and the adverse effects of chemotherapy to survive treatment trajectory (Lawrence 2013). Even though literature had shown varying definitions for survivorship (Bell & Ristovski-Slijepcevic, 2013), according to Ninsaw, (2016), survivorship is a three-month post breast cancer treatment. The

survival rate, however, differs globally, going from over 80% in North America, Sweden and Japan to about 60% in middle-income countries and below 40% in low-income countries (Coleman, Gjerstorff, & Morris, 2008). Breast cancer mortality rate has been decreasing since 1990, and there are over 2.9 million women in the U.S and 700 women in Kumasi- Ghana who have survived BC (Adai, 2017; American Cancer Society, 2015). This does not come easy as Fu and Rosedale (2009) reported that BC patients experience multiple symptoms on a daily basis and are often confronted with unexpected feeling and emotional response to BC diagnosis and treatment and these include shock and sadness (Aziato & Clegg-Lampsey, 2015). To survive means therefore that those patients have exhibited resilience (Costanzo, Ryff, & Singer, 2009).

Resilience stems from the Latin word *resilire* 'which means *to leap back*' (Windle, Bennett, & Noyes, 2011). Literature on resilience suggest that some individuals are better able to adapt to stress and hardship, whilst others are less able to cope (Levine, Laufer, Stein, Hamama-Raz, & Solomon, 2009). Effectively, high performance and wellbeing following risk can be a challenging task among the terminally ill; it is therefore key to comprehend what influences personal resilience and how to build it (Maley & Mikkelsen, 2015). A study by Molina et al. (2014) for all periods of the cancer continuum shows that, resilience depictions included prior or baseline qualities, for example, demographics and individual attributes (such as optimism, faith, social support) and mechanism of adaptation such as coping and therapeutic experiences (e.g., positive supplier correspondence). Similarly, Robertson, Cooper, Sarkar, and Curran (2015) believed, for one to demonstrate resilience, there are four factors one will go through such as adaptation

to the situation (Molina et al., 2014), social support (Aziato & Clegg-Lampthey, 2015), competence and purposefulness (Cooper, Flint-Taylor, & Pearn, 2013).

Resilience factor exists for every individual, however, across the life course, the experience of resilience will vary (Windle, 2011) and those that are able to cope and adapt (Molina et al., 2014) during setbacks and adversities are labeled resilient, while those who are not able to adapt to the challenging life events fade off, and succumb to the adversities are termed as people without or with poor resilience (Amstadter, Moscati, Maes, Myers, & Kendler, 2016; Davydov, Stewart, Ritchie, & Chaudieu, 2010). For example, Aziato and Clegg-Lampthey, (2015); Cleary et al., (2013) in their study found a positive relationship between social support and breast cancer survivorship. However, in Ghana little is known about factors that influence resilience among BC women who received chemotherapy.

## **1.2 Problem Statement**

From 1975 to 2010, the mortality rate of BC declined from 32 per 100,000 per year to 21 per 100,000 per year in Australia (Coleman et al., 2011; Narod, Iqbal, & Miller, 2015). Similarly, breast cancer death rate has been diminishing since 1990, and there are more than 2.9 million women in the U.S who survived breast cancer (Siegel et al., 2016). In Japan, a recent study showed better health outcomes and an increased survival rate among breast cancer patients (Yoshimura et al., 2018) while in Ghana, over 700 women also survived BC in Kumasi (Adai, 2017). Several studies have highlighted the negative results of a cancer diagnosis and others have investigated the experience and resilience among haematological cancer patients in Australia and America (American Cancer Society, 2015; Gallager, 2016). However,

in Ghana, there seems to be no research done using resilience model to investigate factors influencing resilience in women who completed chemotherapy for breast cancer in the Accra Metropolis in spite of the adverse effects of chemotherapy. It is against this background the researcher seeks to explore factors influencing resilience in women who completed chemotherapy for breast cancer in the Accra Metropolis.

### **1.3 Purpose**

The purpose of this study is to explore factors influencing resilience in women who completed chemotherapy for breast cancer in Accra Metropolis.

### **1.4 Objectives of the Study.**

The study seeks to:

1. Explore breast cancer survivors' experiences following chemotherapy treatment.
2. Explore the personal traits (purposiveness and confidence) that influence resilience in women who completed chemotherapy for breast cancer in Accra Metropolis.
3. Investigate the support systems that influence resilience in women who completed chemotherapy for breast cancer in Accra Metropolis.
4. Describe how women with breast cancer adapt to breast cancer diagnosis and chemotherapy treatments.

### **1.5 Research Questions**

1. What are the breast cancer survivors' experiences following chemotherapy treatment?

2. What are the personal traits (purposiveness and confidence) that influence resilience in women who completed chemotherapy for breast cancer in Accra Metropolis?
3. What are the support systems that influence resilience in women who completed chemotherapy for breast cancer in Accra Metropolis?
4. How do women with breast cancer adapt to breast cancer diagnosis and chemotherapy treatments?

### **1.5 Significance of the Study**

It is hoped that findings from this study shall be made public through publications in order to help clinicians render effective and efficient nursing care that will fit the needs of future breast cancer patients who may receive chemotherapy. Again, this study 's findings shall serve as a vital information source for preparing educational materials for clinicians and the general public on factors influencing resilience among women with breast cancer who may receive chemotherapy in future. Finally, it is also hoped that the findings may add to knowledge in nursing on how to support breast cancer women and unearth other possible and related areas for future research.

### **1.6 Operational Definition of terms**

**Breast Cancer (BC):** A general term that refers to a disease characterized by uncontrolled, abnormal growth of malignant cells in the breast.

**Chemotherapy:** Treatment with cancer-killing drugs that may be given intravenously (injected into a vein) or by mouth.

**Resilience:** The capacity to recover quickly and effectively from adversity

**Survivor:** The experience of living without BC for 3month and above after BC diagnosis and treatment.

**Experience:** the knowledge or mastery of an event or subject gained through involvement in or exposure to it.

**Purposefulness:** Having a purpose through hope and optimism during adversities.

**Confidence:** the belief that a person can have faith in or rely on someone in times of difficulties.

**Personality traits:** Are the distinguishing characteristics that are the embodiment of a person.

**Support system:** Network of people/organizations who provide an individual with practical, material or emotional support.

**Adaptation:** The action or process of coping with a challenge.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0 Introduction

This section reviews literature on the resilience models, background and justification for the choice of the I-resilience model, followed by review of the study objectives under the headings: breast cancer survivors experiences, personal traits that influence resilience, support systems that influence resilience, and adaptation/coping that breast cancer survivors adopted during chemotherapy treatment then summary of the chapter. A portion of the databases utilized as a part of the sources for writing included Science Direct, Google Scholar, MedlinePlus, Pub Med, Sage, EBSCOhost, Wiley Online Library, HINNARI and Taylor and Francis Online Library.

Keywords utilized as part of the search were breast cancer, chemotherapy and women. Resilience was used with confidence, purposefulness, support systems and adaptation in order to identify relevant studies on factors that influence resilience in women who completed chemotherapy for breast cancer. Even though there is plethora of literature on resilience, the search identified few studies elsewhere relating to the research topic under investigation and these include, resilience among women across cancer spectrum, factors influencing resilience among haematological cancer survivors, and resilience among women with moderate lifetime stress.

#### 2.1 Reviewing Resilience Models

The concept of resilient model is pivotal to cancer care nursing, especially how to develop resilience in challenging times (Windle & Bennett, 2012). Many models have been proposed such as the resiliency model, challenged model, compensatory model and protective model since the progression of resilience studies

(Andersson & Ledogar, 2008; Fleming & Ledogar, 2008). Depending on the type of study, context and culture mostly influence the choice of a research model and its application (Pooley & Cohen, 2010; Ungar, 2006). Below are explanations for the models mentioned above and reasons they are not appropriate for the current study and also reasons for the preferred model for this study.

The Resiliency Model proposed by Richardson, Neiger, Jensen, and Kumpfer (1990) highlighted the process approach. The concept underlying the Resiliency Model is that resilience is developed through facing life challenges, stressors and or risks. This process begins early in life, as individuals attempt to adapt to any challenge in an attempt to successfully cope (Pooley & Cohen, 2010). The Resiliency Model hypothesises that, individuals decide consciously or unconsciously and affects the outcomes of challenges they encounter. This state is termed as bio-psycho-spiritual homeostasis, which refers to the fusion of biological, psychological, and spiritual functioning (Richardson et al., 1990). This homeostatic state is always at the risk of disruption from various stressors (cancer). Regardless, defensive factors reduce these impacts and shield events from aggravating (Richardson, 2002; Richardson et al., 1990). According to Richardson's Resiliency Model, a failure of the protective factors to alleviate stressors results in the disruption of the bio-psycho-spiritual homeostasis of the individual. This leads to one of the three outcomes proposed by (Richardson, 2002; Richardson et al., 1990).

First, resilient reintegration: This is the state whereby the individuals exceeds their initial homeostatic state, following acquisition of higher adaptive skills. Second is, homeostatic reintegration: This refers to the state where the individual goes back to the state they were before the stressor. Lastly, maladaptive reintegration: This is

the state where the individual may fail to reach the state they were prior to the stressor. This may result to dysfunctional reintegration leading to potential mental health problems if the homeostatic level is too low (Richardson, 2002). A careful review of resiliency model revealed a lack of contextual application particularly within the proposed research setting. Research model must have multidisciplinary approaches (Davydov et al., 2010) but resiliency model is deficient in the social approach to resilience. This is because Richardson's resiliency model focused on the biological, psychological and spiritual factors while the current study includes the support systems that might have influenced resilience among breast cancer patients who received chemotherapy. In addition, within the African traditional society and Ghana In particular the quality and volume of the relationship one has can either promote or undermine health outcome (Kumi-Kyereme, Awusabo-Asare, Tanle, & Biddlecom, 2007) which cannot be traced in Richardson's model thereby rendering it inappropriate for this research study.

The compensatory model: This model best explains a situation where a resilience factor operates in an opposite direction to a risk factor. The compensatory resilience factor has a direct effect on the outcome, which is independent of the effect of the risk factor (Fleming & Ledogar, 2008; Gallager, 2016; Terrisse, 2000). In Aboriginal Youth Resilience Studies in Canada for example, abstaining from alcohol was compensatory in the sense that, it was independently and directly associated with lower risk for youth suicide (Andersson & Ledogar, 2008). This model is best suit for quantitative research where moderation is required. Moderators are referred to as variables that can influence the relationship strength between other variables (Baron & Kenny, 1986). Thus, resilience is understood to moderate interactions in regression

by influencing the direction and/or strength of a relationship between other variables such as coping skills as the determinants of effects of risk and protective factors (Terrisse, 2000), hence not suitable for this qualitative study.

The protective model: This model shows how resources reduce or moderate the effects of a risk on a negative outcome. Protective factors often operate in different ways to influence outcomes. For example, they may help weaken risk or neutralize the effects of risks but they cannot completely remove the risk; or they may promote a positive effect of another influencing factor to reach an outcome (Terrisse, 2000). In the Aboriginal Youth Resilience again, being drug-free, despite the fact that it is not directly connected with lower suicide risk, it is connected with lower alcohol use and thus is protective because it enhances the latter 's anti-suicide potential (Andersson & Ledogar, 2008). The protective model, however, lacks personal traits as a concept, necessary to elicit responses of survivors who have demonstrated resilience during adversity, thereby rendering it inappropriate for the current study since one of the objectives of the study is to investigate the personal traits that influence resilience among women with breast cancer who received chemotherapy.

The challenge model: In this model, the correlation between a risk factor and an outcome is —curvilinear. Exposure to both low and high levels of a risk factor are linked with negative outcomes, yet, moderate levels of the risk are associated with less negative (or positive) outcomes (Terrisse, 2000). Exposure of adolescents to moderate levels of risk, for instance, may be met with a lot of the risk factors to learn how to overcome them but they are not exposed to so much of them that overcoming it is impossible (Terrisse, 2000). This proposal was countered by Ungar (2011) where he proposed that resilience is ecologically based; it is not possible to decide a

straightforward linear process. Resilience involves navigation and is, in this way, dependent on a large number of interactive patterns that defers among individuals. Again, challenge model is best suit for longitudinal study (Ungar, 2011) therefore making it inapplicable for this study.

The I-resilience model was founded in 1999 by Robertson Cooper, Manchester and London based business psychologists, in order to offer well-being, stress and resilience leadership development and talent consultancy (Cooper, 1999). Cooper wanted to understand why some businesses fail and collapse under economic recession while others recover from recession to profit-making status under the same environment (Cooper, 1999). Similarly, this study seeks to unearth how breast cancer survivors overcome the cancer disease burden and chemotherapy effects and resume normal duties while others succumb to the same or similar conditions and wear off (Masten, Best, & Garnezy, 2008). Though some researchers have studied resilience among haematological cancer survivors (Gallager, 2016), others have also done some work on social policies for children and families (Jenson & Fraser, 2015) and vulnerability among preschool children (Tschann, Kaiser, Chesney, Alkon, & Boyce, 1996), and identified factors that promoted or impeded resilience among these participants. These previous studies did not use the I-resilience model. Thus, there will not be repetition of findings if it is adopted for this study. This renders further credence to why this model is appropriate for the study.

In addition, the I-resilience model has four concepts which include adaptation, social support, purposefulness and confidence (Cooper, 1999). Various aspects of this I-resilience model have been exploited as a single concept by other researchers in their investigations. For example, social (Brinker & Cheruvu, 2017; Fleming &

Ledogar, 2008; Fong, Scarapicchia, McDonough, Wrosch, & Sabiston, 2016; Gall & Bilodeau, 2017; Jenson & Fraser, 2015) and adaptation (Cooper et al., 2013; Durá-Ferrandis et al., 2017; Viglund, Jonsén, Lundman, Nygren, & Strandberg, 2016). This further strengthens the appropriateness for the choice of this model for the study even though there seems to be no evidence of the adoption of the entire model for any applied science research investigations.

Together, the experiences of breast cancer survivors, personal traits that influence resilience, support systems that influence resilience and how survivors adapted to cancer diagnosis and chemotherapy are explained in detail. But first, below is the adopted four (4) domains of I-resilience model for this research propounded by (Cooper, 1999).

Figure 1. The I-resilience model



(Cooper, 1999).

## **2.2 Justification for the I-resilience Model**

The I-resilience model is the only model with four concepts that encompasses the fourth and fifth wave of the resilience study suitable for qualitative research (Gillespie, Chaboyer, & Wallis, 2007). Based on the understanding of resilience as bouncing back in spite of adversity (Cooper et al., 2013; Dooley, Slavich, Moreno, & Bower, 2017), it is therefore inferred that breast cancer patients who stay through and after doses of chemotherapy and their side effects might have demonstrated resilience. The best way to determine that is by using a model that contains concepts that have similar background and is relevant for qualitative exploration.

Finally, the concept reflects deeply the objectives of the study and the topic under investigation. Even though literature has not indicated the direct use of the entire I-resilience model for breast cancer studies, yet the concepts have been duly exploited in separate research studies on resilience of which the necessary responses were obtained as alluded to earlier (Gillespie et al., 2007). For instance, studies on the experiences of women with breast cancer and mastectomy revealed that some support is received from partners during and after surgery, and those who received support coped better than those who did not (Aziato, 2009; Baskin, Kwan, Zavala, & Chamie, (2017). Eicher, Matzka, Dubey, and White (2015) also used social support, and adaptation as concepts in a quantitative study to investigate factors that influence resilience among women with cervical cancer. The use of these concepts in previous studies further explains the importance of I-resilience model for this research since the concepts are the same.

## **2.3 Experiences of Breast cancer Survivors following Chemotherapy**

There are several pathological experiences inherent in cancer and chemotherapy that lead to specific physical, social, financial and psychosocial burdens which are unique to each survivor (Ellegaard, Grau, Zachariae, & Bonde Jensen 2017; Swash, Hulbert-Williams, & Bramwell 2014), compared with those with tumour for surgery where the tumour can easily be taken out. With chemotherapy, both the drugs, setting and method of administration vary (Ellegaard et al., 2017; Howell, 2011; Swash et al., 2014) and the treatment circulate throughout the entire body with no specific targeted cancer cells (He & Roberts, 2008). Thus, making most patients settle for surgery where possible compared to chemotherapy, because traditional chemotherapy is generally more debilitating and toxic than targeted therapies, and, therefore, can lead to detrimental effects or post-treatment complications (Roberts & He, 2008). For example, chemotherapy adverse reaction may affect the ability of the patients to fulfil social, family and vocational responsibilities due to symptoms such as fatigue, depression, anxiety, fear, loss of identity and effects on sexuality and fertility (Browall et al., 2017; Ellegaard et al., 2017; Fox et al., 2017; Stewart, 2017).

### **2.3.1 Physical burden**

Authors such as Chapman, (2015); Gallager (2016) described breast cancer survival experiences as one which involves life changing, beginning from diagnosis through to the last dose of one 's chemotherapy. Due to the multifaceted challenges cancer survivors encounter, several literature turns to refer to such experiences as "price of survivall (Davies, 2009; Gallager, 2016, p.120) In a few cases, progress in cancer treatment has added months to people 's lives, and not actually life to months

of these same people (Boyle, 2006; Kantor, 2015). Literature has revealed that cancer diagnosis and treatment with chemotherapy have increased negative physical changes in the patients' bodies such as loss of taste and fatigue (Gallager, 2016; Hsu et al., 2017; Lorusso et al., 2017). Similarly, a longitudinal study by Hsu et al. (2017) revealed that cancer patients receiving chemotherapy have complained of fatigue (Hickman, Barton, & Elkins, 2017; Zhang et al., 2017), loss of taste (Kruif et al., 2015; Oort, Kramer, Groot, & Visser, 2018), common cold and sore mouth (Gallager, 2016), and vomiting (Hickman et al., 2017).

In addition, a case-control research of 56 Oestrogen receptor positive breast cancer survivors (BCS) on adjuvant aromatase inhibitors 1–2 years after conclusive surgery. Patients that had gotten adjuvant chemotherapy ( $n = 27$ ; age  $70.5 \pm 3.6$  years) versus age-matched controls who had not ( $n = 29$ ; age  $70.0 \pm 4.3$  years). Measures of grip strength, physical movement and activities, weakness, walking speed and self-announced physical capacity were collected and natural correlates of inflammation, delicacy and markers of DNA and RNA oxidation were analyzed (Extermann et al., 2017). Report from the above study indicated that older women who received chemotherapy revealed having marginally lower physical function and more fatigue compared to women who did not (Extermann et al., 2017).

Also, a qualitative study involving twenty-four (24) breast cancer women who had been treated for early-stage ductal carcinoma in situ were interviewed and more than a dozen of the participants expressed having experienced loss of hair during chemotherapy (Trusson & Pilnick, 2017). To these participants hair loss was a very disturbing experience because hair is an important identity to them. From the narrative, most of these women decide to disguise their hair and others have to wear

wig to social gatherings (Trusson & Pilnick, 2017). In furtherance, Freitas-Martinez et al. (2018) in their qualitative study revealed that almost all women with breast cancer experience persistent chemotherapy-induced alopecia during their treatment journey and even after in some survivors. These participants intimated that even though survivorship represents a good thing the harrowing effects associated with chemotherapy such as hair loss due to systemic therapies remains a scar in their mind each time they remember their cancer journey (Freitas-Martinez et al., 2018).

According to Kanti et al. (2016), hair loss is a common negative chemotherapy experience among breast cancer patients. This is contained in their observational cohort study where 34 women with cancer were examined after postoperative chemotherapy (group C, n = 17). Results indicated that all breast cancer patients who responded to the questionnaire experienced hair loss (Javeth, Mathur, & Babu, 2017; Kanti et al., 2016) and scalp sensations (Kanti et al., 2016).

Aside, many other participants also narrated how they experienced changes in their sexual lives, as Wettergren et al. (2017) reported of altered sexual functioning during chemotherapy among adolescents and young adults. These alterations include dry vagina (McClelland, Holland, & Griggs, 2015), irregular menses or bleeding from the vagina (Rebar, 2017; Spencer & Tay, 2017), and difficulties in conceiving (McDowell, Hockenberry, & Lipshultz, 2018). Alteration in sexual life among breast cancer patients is real and forms part of a larger psychological experiences of cancer survivors. Many cancers survivors report that sexual functioning is their greater concern during their cancer journey than lack of sexual interest (Avis, Crawford, & Manuel, 2004).

Additionally, literature has revealed dark face, palm, and skin as a common chemotherapy adverse reaction among cancer survivors (Aghajanian, 2017; Chu, Lacouture, Fillos, & Wu, 2008; Lal, 2014). These findings are further strengthened by Abushullaih, Saad, Munsell, and Hoff (2002) report, where they investigated the incidence and severity of hand-foot syndrome (HFS) in colorectal cancer patients treated with capecitabine by examining the frequency, seriousness, and time course of HFS. Outline: Toxicity information gathered for these 41 patients treated in two clinical trials on occurrence of HFS revealed that, the rate of patients getting HFS after capecitabine treatment is very high. For instance, a measured of the seriousness and time course of HFS were examined and the report revealed that twenty-eight (68.3%) of the 41 patients had no less than one episode of HFS. Most patients had their initial (92.9%) or most extreme (67.9%) episode of HFS inside the initial two cycles of treatment. This finding is supported by Lal (2014), who indicated that, breast cancer women who received capecitabine and paclitaxel treatment showed history of hand and foot syndrome (HFS) and thickening of the skin. In any case, the common history of HFS has not been completely portrayed. Living with altered skin colour which includes overwhelming experience of pain is a frequent experience that characterized chemotherapy in cancer patients (Yeager, Quest, Vena, & Sterk, 2017).

### **2.3.2 Social burden**

Treatment burden on cancer patients receiving chemotherapy has been widely investigated. Findings of these studies revealed majority of cancer patients experienced withdrawal from social gathering and work-related activities (Miaskowski et al., 2018). In their investigations on the impact of chemotherapy-induced neurotoxicities on adult cancer survivors Miaskowski et al. (2018)

discovered that majority of breast cancer survivors experienced hearing loss and tinnitus as physical effects and isolation/withdrawal from social gathering as social effects of chemotherapy on cancer survivors. Similarly, a study by Torres et al. (2016) exploring the understanding of African American breast cancer survivors 'experiences revealed that most of the breast cancer survivors experienced social stigma such as being avoided by friends due to altered body image resulting from chemotherapy adverse reactions.

Also, negative self-image and bad feeling about disease condition (Drageset, Lindstrøm, & Underlid, 2016) have been reported to have additional impact on cancer patients on chemotherapy (Suwankhong & Liamputtong, 2016). These patients, for example, experience social dysfunction such as being stigmatized and undermined within their own social context (Suwankhong & Liamputtong, 2016). This finding is supported by Patterson, McDonald, Zebrack, and Medlow (2015), in their investigations, cancer patients expressed being marginalized by peers and coworkers due to physical changes in their body emanating from chemotherapy adverse reaction.

Additionally, most cancer patients suffer social burden from the perspective that, those who have not experienced similar treatment reactions and disease burden hardly and genuinely appreciate their concerns thereby isolating them during their difficult hours of chemotherapy (Kelly & Dowling, 2011a). In furtherance, Kelly and Dowling (2011a) reported that majority of cancer patients expressed having experienced an altered body image such as alopecia fatigue, dark palms emanating from the adverse reaction of chemotherapy. These changes in their body affected the way their peers viewed and interacted with them as some friends became rude, ignoring and petty. This study is in line with findings by Iannarino, Scott, and

Shaunfield (2017) in which they reported that pettiness and snubbing by the public against cancer patients is common. Similar, Iannarino et al. (2017) in their qualitative study involving 30 young adult cancer survivors' on normative perceptions of social support functions to hinder or assist coping with the cancer experience reported that, majority of the participant's experienced ineffective social support such as rudeness, excessive self-monitoring, unnecessary questioning and isolation from peers.

Also, according to McCaughan, Prue, Parahoo, McIlfatrick, and McKenna (2012), majority of breast cancer patients feel marginalized and so put on braved facial expressions to avoid sharing their actual feelings in order to save close friends and family members. Kelly and Dowling (2011a) concur with the above and emphasis that, most cancer patients hide their true feelings and avoid sharing their inner thought in order to protect loved ones (Kelly & Dowling, 2011a) and they do this by eliminating any telling facial expressions of their real feelings (Kelly & Dowling, 2011a; McCaughan et al., 2012). This finding is supported by other studies that suggest that an appreciation of an individual's cancer journey is honestly accepted from people who had undergone similar situations (Aziz, 2009), even though there is consistency of literature on how cancer patients protect loved ones. It is still not clear how long such braced faces can shield the patients from loved ones.

Literature also indicates that many breast cancer patients complained of being separated from their children during chemotherapy. To these women, even though it is for their safety and that of their kids, they felt they were being caged since they could not see their own children (Lilliehorn & Salander, 2018). This created a major social burden for them, hence making them live at what they termed –a residency away from home (Lilliehorn & Salander, 2018, p153). This isolation is not a new practice

as far as chemotherapy and standard precautionary measures are concerned. For instance, as early as the 80s Selwyn's (1980) report revealed that because of endogenous and exogenous sources of infection, protection is required for the vulnerable and the highly susceptible like children and patients themselves. Selwyn (1980) asserted that generally endogenous accounts for the many of –hospitalsl infections in individuals who are susceptible with about 86 per cents of infections in cancer patients gotten from their endogenous flora and 47 per cent acquired from hospital admission. Hence, protective isolation of kids and vulnerable patients is highly recommended for areas where cytotoxic drugs are given (Selwyn, 1980)

### **2.3.3 Financial impact**

Financial grieving among patients in all illnesses is well documented, however, literature revealed that financial strain experienced by cancer patients are relatively burdensome (Ramsey et al., 2013; Zafar et al., 2013). Additionally, Bernard, Farr, and Fang (2011) in their study on –Out-of-Pocket Health Care Expenditure Burdensl discovered that there were 13.4% total financial burdens on patients with cancer compared with 9.7% in those with chronic illness among patients with other conditions. According to Bernard and friends these financial burdens contribute to slow pace of recovery among cancer patients (Bernard et al., 2011). The debilitating nature of all forms of cancer demands a comprehensive approach in treating the cancer (Hofman, Ryan, Figueroa-Moseley, Jean-Pierre, & Morrow, 2007) and during treating financial needs increase (Bernard et al., 2011). Several breast cancer survivors narrated they became financially challenged during the cost of treatment because they were not able to work like before and others had to work half a

day because of queues at the hospital and fatigue from chemotherapy (Zafar et al., 2013).

Similarly, other participants reported they had financial burden because they spent almost all their working hours waiting for the doctors to attend to them at the clinic, and these delays affect their income generation since all precious time is wasted in a queue (Myrdal et al., 2004). Prolong waiting time affects patients and their relatives in so many ways including finance and best practices as Myrdal and colleagues revealed in their findings that –waiting time for treatment in patients with non-small cell lung cancer is longer than recommended and since time is money (Lerner, Zahra, & Kohavi, 2007) these patients end up bankrupt and financially intoxicated (Zafar et al., 2013). According to Jaggi et al. (2014), most of the participants in their study could not pay for their treatments owing to loss of jobs due to cancer disease and or expected expenditure incurred from cancer investigations and treatments.

The financial impact experienced by cancer patients is described –as catastrophic subjective financial burden (Zafar et al. 2013, p2). This is because most of these patients could not honor their appointment date due to lack of money (Jaggi et al., 2014). In most instances cancer patients had to rely on loans to pay their treatment bills and those who do not go for loans reported having medical debt for four years post diagnosis. These debts according to Jaggi and colleagues varied significantly by race: 17% of English-speaking Latinas, 15% of blacks, 10% of Spanish-speaking, 9% of whites, with the Latinas reporting a debt of (P=.03). In all, 25% of women in this study reported of experiencing financial strain (Zafar et al., 2013).

Furthermore, the financial burden associated with cancer experiences are the attempts by cancer patients to manage their changing body image such as loss of hair, nails and discoloration of the skin owing to the adverse reactions from chemotherapy (Freites-Martinez et al., 2018; Lorusso et al., 2017). Several other cancer patients were reported to have lost their life time savings as a result of unexpected expenditure through cancer diagnosis, investigations and treatments. Some other cancer patients had complaints of experiencing up to a 46% reduction in food and clothing expenditure due to depletion of their savings as a consequence of cancer care, and about 46% cancer survivors reported having to use their life-time savings to defray out-of-pocket expenses (Zafar et al., 2013).

One of the most serious impacts of cancer diagnosis and treatment is whether or not the individual can return to work after treatment and or possible job loss (Tiedtke, Rijk, Dierckx Casterlé, Christiaens, & Donceel, 2010). Possible job loss affects women with cancer in making decisions about working during the treatment phase. (Tiedtke et al., 2010). Literature indicates that, even though most cancer survivors will have loved to return to work after completing their chemotherapy, their ill health such as fatigue lingers on (Hofman et al., 2007). These decrease work productivity thereby compelling employers to dismiss these individuals, which subsequently affects their income level. However, other employers may not demise them but treat them differently with a commensurate reduction in income solely because of their cancer histories (Hoffman, 1991).

Available literature revealed that some patients narrated being sacked from work because they reduced their working hours in order to accommodate treatment cycles or to tolerate the side effects of chemotherapy (Banning, 2011). Conversely

Vough and Caza (2017), do not see demotion as a financial loss to employee, and Sanchez, Richardson, and Mason (2004) report that not all employers may dismiss their employees, basically because of their cancer history, and also because about 34% of cancer survivors delayed their return beyond two months post diagnosis to work due to chemotherapy side effect. We can infer that their delay may affect productivity. Thus, their dismissal is not necessarily because of their cancer history but possibly the slowdown of productivity. However, Mahapa (2018) rejected that assertion and reported that aside demotion breast cancer patients usually faced at work side they also experienced discrimination including outright dismissal, failure to be promoted and unequal compensation.

Boykoff, Moieni, and Subramanian (2009), in their findings, reported that breast cancer patients exhibited mild cognitive impairment following chemotherapy including chemobrain. This is one of the most commonly reported post treatment symptoms by breast cancer survivors and some employers will not hesitate to sack an employee with altered cognitive functioning. Even though in the United States laws provide job protection from discrimination against people with cancer, it is very easy for employers and co-workers to have low appreciation about a person's ability to work during and after undergoing treatment for cancer. Such employers easily sack such employees (Blanck, Myhill, Vedeler, Morales, & Pearlman, 2009).

According to Chalkidou et al., (2014); Zafar et al., (2013), the capital for acquiring chemotherapy alone is burdensome for cancer patients. However, even in some instances the availability of the prescribed medicine makes the situation worse (Saghir et al., 2011). For instance, afatinib is a highly selective drug hence getting it to purchase in some middle-income countries are a major challenge (Hoppe,

Sparidans, Wagenaar, Beijnen, & Schinkel, 2017). When you live in a country where afatinib is not available and your doctor prescribes it for you, you will require money for both the drug and transport. According to Mahlich, Tsubota, Imanaka, and Enjo (2018), these chemotherapy drugs, including afatinib has numerous adverse reactions such as, fatigue, loss of hair and taste and infertility. So, in taking afatinib the patients will need extra finance for three things: money for purchasing the drug, transport and for managing the side effects of the drug such as sore mouth, darken skin and alopecia (Mahlich et al., 2018).

#### **2.3.4 Psychological impact**

Breast cancer remains a life threatening illness (Salakari et al., 2017) and emotional reactions to cancer diagnosis such as shock remains a major challenge among women with breast cancer (Aziato & Clegg-Lampsey 2015). In their qualitative study, they explore twelve Ghanaian women diagnosed with breast cancer on factors influencing treatment decisions among them. Majority of the participants revealed sadness as their first experience upon hearing cancer diagnosis. And because some of the women identified their breast lesions accidentally, accepting the diagnosis takes a longer time with frequent denials. This create a major psychological impact among such cancer patients (Aziato & Clegg-Lampsey, 2015).

Many other survivors of cancer face an uncertain future that can impact on their mental or physical health (Allart, Soubeyran, & Cousson-Gélie, 2013; Mitchell, Ferguson, Gill, Paul, & Symonds, 2013). From studies, several patients adapt better, and their level of grief is considered a normal response to a diagnosis of cancer (Mitchell et al., 2013). On the contrary, in times of difficulties during the survivorship journey, the stage of patient's adjustments to symptoms may swing and lead to

psychological illness (Swash et al., 2014). Fortunately, in a holistic oncology care, psychological screening for sadness, among other signs, has become an important component (Bultz & Johansen, 2011) and some researchers consider it as the sixth vital sign (Syrjala et al., 2004). Christiaans et al. (2009); Krebber et al. (2014); Lam et al., (2017) state that, estimates and instruments used to measure sadness vary depending on the cancer population under study, however, the documented data shows a superior evidence that cancer patients are at greater danger of developing mental distress compared with those diagnosed with other terminal diseases. It is believed that, this might be resulting from the many unique and challenging futures characterizing cancer, for instance, the lack of preventive screening and specific treatment regime (Rutter et al., 2018).

Studies revealed that cancer survivors seem to take longer time to recover from psychological burden, such as depression and anxiety compared with the physical effects of cancer and cancer treatment (Stein, Syrjala, & Andrykowski, 2008; Syrjala et al., 2004). This means that breast cancer patients may be more likely to require psychological intervention (Syrjala et al., 2018). But studies indicate that busy clinicians often overlook cancer patient's psychological health in hospitals (Mitchell et al., 2011). According to Campbell-Enns and Woodgate (2017); Prieto et al. (2006), there is enough evidence to show that mental distress could lead to decrease involvement in medical care and potentially prolong hospitalization.

Literature indicates that it is a challenge in understanding depression among cancer survivors, partly resulting from conflicting results (Black et al., 2018). As Krebber et al. (2014); Mitchell et al. (2013); Walker et al. (2013)

suggested in their study this is basically due to several methodological differences such as cancer type (Hoadley et al., 2014), prognosis (Denkert et al., 2018), instruments used (Vrublevska, Trapencieris, & Rancans, 2018), and treatment stage (Krebber et al., 2014; Mitchell et al., 2013). Bohlke (2018) for instance, investigated the prevalence rates of depression among cancer patients and reported a variance of 0% and 58%. Similarly, in two previous meta-analyses, the depression rates among mixed cancer patients differed greatly, from 8% to 24% (Krebber et al., 2014) and from 1.0% to 77 % (Mitchell et al., 2013). Depression and anxiety, however, are revealed in the literature to be the most dominant psychological problems causing distress among breast cancer survivors (Ng et al., 2017; Okuyama, Akechi, Mackenzie, & Furukawa, 2017).

Fear of breast cancer recurrence among survivors of breast cancer is a distressing symptom and can negatively affect survivors' psychological well-being and quality of life (Chapman, 2015; Freeman-Gibb, Janz, Katapodi, Zikmund-Fisher, & Northouse, 2017; Heathcote & Eccleston, 2017; Şengün İnan & Üstün, 2018). For example, using a semi structured interview, 12 Turkish breast cancer survivors' experiences were explored and results indicated that, breast cancers survivors experienced fear of disease reoccurrence (Şengün İnan & Üstün, 2018). Similarly, Freeman-Gibb et al. (2017) in their correlational research identified ( $\beta = .46, p < .01$ ) emotional representations, ( $\beta = .21, p < .01$ ) symptom attribution, ( $\beta = .23, p < .01$ ) timeline, and ( $\beta = .16, p < .03$ ) consequences as significantly correlated with fear of cancer recurrence. Such women find it difficult to manage their fear because of their past experience (Şengün İnan & Üstün, 2018). This finding is supported by

Matthews and Semper (2017). In their qualitative study entitled –Dropped from the system, the experiences and challenges of long-term breast cancer survivors Matthew and friend discovered that, breast cancer patients endure several challenges during their treatment journey including fear of recurrence.

Aside the fear of cancer reoccurrence is —fear of a link with cancer (Whitaker, Macleod, Winstanley, Scott, & Wardle, 2015, p2). In a survey research (n = 48) participants were recruited from a community-based sample (n = 1724) of adults aged  $\geq 50$  years who completed a health survey that included a list of symptoms. Results revealed that most participants indicated they became uneasy each time they identified any new changes on their bodies such as sore or boils. It reminded them of their cancer. They termed such a scary attitude as —fear of a link with cancer (Whitaker et al., 2015). Whitaker, Cromme, Winstanley, Renzi, and Wardle (2016) concur with the above authors in their research where over a third of respondents (37%) described an emotional response to their symptom experience. These emotional responses were usually either classified as mild (worry) or severe (fear), with majority having their emotional reaction as fear with anything that they perceive look like cancer (Whitaker et al., 2016)

Studies on breast cancer survivors' psychological distress have also been documented widely (Fairburn, Holcombe, & Beesley, 2018) and results revealed a repetitive cognitive malfunctioning (Jaremka & Nadzan, 2018). Mental stress from chemotherapy adverse reaction has shown to have several consequences such as acute physical and mental impairment. The acute mental impairment has been reported to have negative impact on milk ejection reflux among lactating mothers (Stopenski, Aslam, Zhang, & Cardonick, 2017). Some participants from a qualitative study

revealed that on countless occasions they had to be admitted because of the psychological agony and increased urination they experienced as a result of adverse effects of chemotherapy (Abdollahzadeh, Moodi, & Khanjani, 2017; Shi et al., 2018).

Moreover, many other authors revealed how most cancer patients suffer from memory changes (Billiet et al., 2018; Gallager, 2016). Patients with breast cancer who were treated with chemotherapy in community oncology clinics indicated they suffered major mental difficulties up to 6 months after treatment compared with those age-matched non-cancer controls (Janelsins et al., 2017). Gibbons (2017) concurs with the above findings on cognitive flanks in cancer patients who received chemotherapy. In the author's doctoral dissertation, she explored the live experience of chemotherapy brain in early stage breast cancer among women aged 50 and below. Results indicated that majority of the participant's experience diminished mental functions and some of the survivor even refused to accept their present circumstances of life.

#### **2.4 Personal Traits that Influence Resilience in Women who Completed Chemotherapy for Breast Cancer**

Hopefulness and optimism are positive trait dispositions and can act as personal resources among cancer survivors and are reported in previous studies to foster resilience (Dunn, Occhipinti, Campbell, Ferguson, & Chambers, 2011; Gartland, Bond, Olsson, Buzwell, & Sawyer, 2011; Ho, Ho, Bonanno, Chu, & Chan, 2010; Pieters, 2016). Literature indicates that, a stable personality trait where an individual has a generalized positive future expectation on the face of negative events is referred to as dispositional optimism (Scheier & Carver, 1985). Similarly, dispositional hope constitutes a motivated state to reach desired goals along with a

belief that a person will be able to adequately engender a plan to accomplish them (Snyder et al., 1991). The adjustment to life and superior health outcome both physically and psychologically is consistently linked with higher hope (Snyder et al., 2005; Snyder, 2002). In addition, among people undergoing genetic testing for hereditary, oral cavity cancer, and in colorectal cancer patients, the constructs of hope and optimism have been found to facilitate resilience (Ho et al., 2010).

Reports on the deferential roles hope and optimism play in predicting resilience and growth have well been discussed. For instance, at the conceptual level, the interest has been on the amount of overlap and differences in the two constructs (Rand, 2009). Thus, literature remains that hope and optimism might play differentially in the prediction of psychological adjustment and task performance (Gallagher & Lopez, 2009; Rand, 2009). Uniquely, hope may contribute a more vital role in instances where the outcome is largely dependent on personal effort, while optimism is hugely pertinent in scenarios where the outcomes depend on the external factors and are limited within one's control (Rand, 2009). Below are discussions on the literature outlining the benefits of hope and its influence on resilience.

#### **2.4.1 Hope**

According to Snyder et al. (1991), hope is reported to enhance resilience and generally has an inverse relationship with depression. The theory of hope was conceptualized by Snyder (2002) who propounded the theory of hope and described it as having three interconnected mental components: agency, goals and pathways. According to Snyder et al. (1991) agency thinking offers the motivation and mental energy for goals pursuit, while pathways relates to the mental ability to find the available routes to achieve goals. Snyder's emphasis of hope model is that, people's

actions are often goal-directed and these goals themselves are the mental anchors of hopeful thinking (Snyder, 2002). Thus, Snyder's model suggests that when individuals are challenged with negative events such as breast cancer, they may be distressed for a while but due to their high hopes they are more likely to create and achieve their life goals (Ho et al., 2010). Peterková, Zamastilová, Skřivanová, Brančíková, and Temoshok (2017) concur with Snyder's proposal on hope by indicating that breast cancer patients who were hopeful recovered more quickly than those who were not.

Also, there is a reported relationship between Snyder's hope model and Bandura's self-efficacy theory because both refer to the motivation of goal-directed behaviours. Nonetheless, Snyder (2002) reported that the causes of emotions were not clearly explained in Bandura's theory. Likewise, Rand (2009) agreed with Snyder by proposing that hope goes far beyond self-efficacy in that it is also made of agency thinking and the appraisal of existing energy to use one's capacity in goal pursuits (Rand, 2009, p. 253). To this, hope theory pinpoints whether a person intends to initiate their actions, whereas Bandura assumed that people examine their ability to carry out actions to achieve a goal. As such, perhaps, Snyder stress on the 'will do' while Bandura underscores the 'can do' (Gallager, 2016; Rand, 2009; Snyder, 2002). Hopeful feeling about the future is reported in several studies to be associated with increased quality of life among survivors of leukaemia and lymphoma (O'Connor, Guilfoyle, Breen, Mukhardt, & Fisher, 2007). In spite of the limited heterogeneous samples and cross-sectional approaches used these findings are in consonance with other studies (Gallager, 2016).

According to Stanton, Danoff-burg, and Huggins (2002a), study on cancer

revealed that breast cancer women with higher-hope adopted problem-ocused coping mechanisms and stated that high-hope women adopted problem-focused coping strategies and adapted better one year post their cancer diagnosis. Folkman (2010) states that to fight cancer medically for survival and maintain psychological and spiritual wellbeing, then hope is the best ingredient for such individuals. This is because hope is revealed to be an essential, practical support for participants' motivations and corresponding actions in the face of adversities. Furthermore, a study in China on colorectal cancer patients with a sample size of 234 discovered some individuals who were resilient. These individuals reported higher hope and demonstrated little emotional distress (Hou, Law, Yin, & Fu, 2010). Similarly, a quantitative study by Solano, da Silva, Soares, Ashmawi, and Vieira (2016) among 44 women with terminal illness revealed a strong correlation between hope and resilience ( $0.63; p < 0.05$ ). They indicated that the more the terminally ill patients exhibit hope in themselves the greater were their recovery and the better their responses to treatment (Lam et al., 2017; Solano et al., 2016).

#### **2.4.2 Optimism**

Literature indicates that optimism is the most widely investigated emotional concept (Alim et al., 2008; Gallager, 2016). Theory of optimism is based on expectancy-value models of motivation that state that, in spite of negative events optimists will always hold positive future expectations by way of positive emotions and actively engage themselves in pursuits of their goals. However, for the pessimists' adoption of avoidant coping strategies in responses to an adversity is likely and entrenched in their negative expectations and beliefs, Scheier and Carver (1985). For instance, studies show that optimists are more positive in welcoming and using health-related information and are likely to demonstrate more fighting spirit as

a coping mechanism than pessimists (Schou, Ekeberg, Ruland, Sandvik, & Kåresen, 2004). Building on Scheier and Carver (1985), Goodmon, Howard, Hintz, Alden, and Vadala (2017) suggested that an optimistic person may attribute negative situations to certain causes that are unstable and external. Yet, pessimistic people look out for and attribute negative situations to stable internal causes and these impacts on them gravely thereby undermining their recovery rate.

Optimism has been positively associated with several aspects of individuals QOL such as being anxious about health and sexual intimacy among both ovarian cancer patients (Smith & Zautra, 2008) and patients with prostate cancer (Thornton & Perez, 2006). The relationship between goal adjustment and optimism has also received attention in literature by researchers studying QOL among people with terminal conditions (Rasmussen, Wrosch, Scheier, & Carver, 2006). For instance, previous research reports that optimism may assist in the recovery from psychiatric conditions (Alim et al., 2008; Jeste, Palmer, & Saks, 2017) ; diabetes (Dirik & Göcek-Yorulmaz, 2018; Yi, Vitaliano, Smith, Yi, & Weinger, 2008); coronary heart disease (Boehm et al., 2018; Chan, Lai, & Wong, 2006); and multiple sclerosis and Parkinson's disease (Anzaldi & Shifren, 2018; Ridder, Schreurs, & Bensing, 2000).

Nonetheless, according to Bowen, Morasca, and Meischke (2003), the relationship between optimism and resilience is not sufficiently clear. Bowen et al. (2003) illustrated that in their study, optimism was not correlated to any of the variables they used to compose their resilience scale, proposing that these factors may be unique. To buttress this Knott, Turnbull, Olver, and Winefield (2012) suggest in their study that the pressure on cancer survivors to maintain an optimistic attitude can create an additional burden. However, other studies suggest that an optimistic outlook

can help build an individual's capacity to remain determined, Carver (1998) and increase positive feeling, Alim et al. (2008) in times of setbacks. Notwithstanding, Bowen et al. (2003) and Knott et al. (2012) believed that the link between optimism and resilience is not clear, Lepore and Revenson (2006) indicated that optimistic persons are more likely to show positive outcomes after adversity by positively reframing from negative life events, while others may be engaged in adopting new and more adaptive world-views and by readily eliciting support systems more easily. Lepore and Revenson's (2006) findings agree with Aspinwall and MacNamara (2005) in which they assert, —positive emotions and beliefs seem not only to be associated with good outcomes among people experiencing adversity, but also to play a role in realizing theml (Aspinwall & MacNamara, 2005, p. 2549).

### **2.4.3 Self-esteem**

Many personal traits such as self-esteem is reported in literature to influence resilience among cancer patients (Masten & Coatsworth, 1998). According to Thompson and Kent (2001), self-esteem is often seen as the subjective evaluation of people's reaction to oneself, which may impact directly on an individual's feelings of self-worth. Research states that High self-esteem is upward appraisal of one's self and has been discovered to shield against cognitive distress. For example, self-esteem when held high among people experiencing failure or illness may protect such people from negative emotions about themselves (Brown, 2010). However, several studies report that the occurrence of low self-esteem is generally due to frequent anxiety, rejections, stressful life events and interrelationship dangers, in which people's subjective examination becomes extremely sensitive to negative influences,

frequently derived through their psychological and social environments (Baumeister, Campbell, Krueger, & Vohs, 2003; Owens, Stryker, & Goodman, 2006).

According to Sowislo and Orth (2013) self-esteem is a significant factor to notice in shielding a person against depression. This longitudinal meta-analysis examined the impact of self-esteem on depression with 77 studies and on anxiety with 18 studies with a ranging sample size being 44 and 6, 813. The research varies largely from country of origin to instruments for measurements and sample size. To this, the findings of the study are presumed to have a higher rate of generalization strength, according to the authors. The results were found to show a clear correlation between self-esteem and depression. Thus, people with lower self-esteem in this study exhibited increased depression, whereas depression had only a weak link on self-esteem; nonetheless, anxiety and self-esteem were reported to equally influence each other. However, the findings were not able to establish sufficient evidence as to whether self-esteem influences anxiety, or whether anxiety influences self-esteem. Yet, results suggested that irrespective of gender, age scale used and sample, low self-esteem continue to be a stable risk factor for depression. Furthermore, reports from the study suggested that low self-esteem occurs prior to depression, instead of the opposite and people with depression exhibit weak resilience.

Rodin et al. (2013) outline similar results in their investigation in which they studied haematological cancer patients. Self-esteem was reported from that study to have direct influence on resilience among people with leukaemia. The study's purpose was to investigate the psychological effects, rate of disease occurrence and correlates of post-traumatic stress among acute leukaemia population. A sample size of 205 survivors of leukaemia were involved in the study with 58% being male (M age=50

years) filled the questionnaires composing of series of a psychological scales such as Stanford Acute Stress Reaction Questionnaire/scale and Rosenberg Self-esteem Scale. Results indicated that 14% were able to meet the criteria for acute stress disorder (ASD) with additional 18% for subsyndromal ASD after multivariate regression analysis was used to evaluate the independent predictors of PTSD. This research verified how clinically significant signs and symptoms of traumatic stress are in blood cancer survivors, and significantly, are obviously associated with physical suffering, satisfaction in connections with clinicians and people with psychological features. The researchers recognized how difficult it was for them to establish a causal relationship between increased self-esteem and an increased degree of resilience among individuals with hematological cancer.

Additionally, studies particularly exploring self-esteem as far as its impact on resilience is concern are constrained among patients with breast cancer who received chemotherapy. This therefore necessitated the researcher to draw material from previous studies that investigated people's psychological adjustment and quality of life. Literature reports from a prolong study in which 125 leukaemia patients were investigated that there is a remarkable linkage between increased self-esteem and quality of life 3 years following bone marrow transplant (BMT) (Broers, Kaptein, Cessie, Fibbe, & Hengeveld, 2000). Participants of the study (M age = 37 years) filled the assessment form for evaluating self-esteem, anxiety, depression and locus of control within 5 independent time spans, that is, prior to treatment and 3 years post BMT. The report showed a positive correlation between psychological adjustment and resilience among these patients (Broers et al., 2000).

Self-esteem is likewise reportedly connected to upgrade quality of life in many other investigations that have been studied: different cancer survivor patients, Costanzo et al. (2009), including chronic illness patients (Symister & Friend, 2003); patients with HIV (Farber, Schwartz, Schaper, Moonen, & McDaniel, 2000); and, disfigurement people (Hardy & Cotterill, 1982). Yet, it is necessary to bear in mind that many of the issues concerning cancer survivor's self-esteem relate to variables influencing self-esteem rather than how self-esteem may influence resilience. This is on account of most studies examining self-esteem, within the area of chronic illness and cancer and have concentrated on applying self-esteem as a measure of result instead of a predictor variable (Gallager, 2016).

Furthermore, while studies showed that high self-esteem is protective, as the correlation between self-esteem and resilience is relational and not really casual, it might likewise be the after effect of other protective processes. Consequently, negative results may create low self-esteem or low self-esteem may bring negative results. For instance, a study by Rodin et al. (2013) among patients with haematological cancer revealed that most of the patients showed poor interpersonal relationship. Those that exhibited poor interpersonal relationship may be as result of them experiencing low self-esteem or low self-esteem may have been partially a consequence of ineffective interpersonal relationships with clinicians. Current self-esteem measures may have a correlation impact from traumatic stress, conversely low self-esteem may contribute to distress (Broers et al., 2000),

From the given evidence above on the linkage between resilience and self-esteem, it is therefore sufficient to say that personal traits influence resilience since self-esteem is a concept of personal traits (Gallager, 2016). Several activities may

transpire at both individual and family stages that influence a person's self-esteem.

This is in consonance with a study by Harter (1999) who maintains that there are many routes that guide a person's self-esteem, each of which is influenced by context and is dependent on how each individual perceives their situation.

#### **2.4.4 Confidence**

According to Lam et al. (2017), breast cancer women with poor confidence and tireless distress saw their diagnosis as another blow in life, the sickness as worldwide, saturating each part of their life. Maladaptive rumination and thought suppression were regular reactions to illness demand. A feeling of demoralization emerged in their accounts. Conversely, breast cancer women with competence in a form of goals in life and the willingness to achieve, coupled with confidence and a desire to cooperate with care providers experienced transient/low-stable pain emanating from the breast cancer illness and side effect of the chemotherapy, with minimal impact of their life. They did not exhibit dysfunctional repetitive thoughts. They were able to acknowledge and live their present-moment. Furthermore, the importance of confidence as a determinant of resilience among cancer survivors has well been investigated by Park, Edmondson, Fenster, and Blank (2008) and reported that, a sense of control over illness is a process that affects resilience and is reported to be a major determinant in how cancer survivors manage their illness. For example, a high feeling of external control is linked with vulnerability, or the sense that an individual has little control over their life and is a risk factor for negative health outcomes (Health, 2005).

Thus, as cancer is considered a life-threatening yet low-control condition (Thompson, Sobolew-Shubin, Galbraith, Schwankovsky, & Cruzen, 1993), those

affected may be at greater risk of developing maladaptive coping strategies, such as avoidance behaviours (Turk & Okifuji, 2002) and psychological distress (Karunanithi, Sagar, Joy, & Vidasoundaram, 2018) Conversely, an internal sense of control provides the confidence that a person can influence the events that occur in their life and is usually associated with effective cognitive functioning following traumatic events (Luthar, 1991). A higher internal sense of control has been found to have a positive relationship with other potential protective processes, including, self-efficacy attachment, assertiveness, increased feelings of competency and meaningful involvement (Luthar, 1991; Ungar, 2004). Hence, individuals with a high internal sense of control generally exhibit better psychological adjustment which in turn enhanced resilience (Stewart & Yuen, 2011). Additionally, in a phenomenological research irrespective of level of illness and prognosis, a sample of 7 leukaemia patients and 3 spouses were selected and interviewed. The purpose of the study was to establish the strategies that influence coping among patients and their spouses with leukaemia. The findings discovered that haematological patients that had confidence and a sense of empowerment during the pilot study exhibited a better recovery and control of their illness compared to those without confidence and control.

The authors acknowledged that, in spite of the agreement of the findings with other studies, generalizations about the results are limited because of the sample size and the purposive sampling technique adopted. However, the findings showed that empowerment was affected by three main elements: Firstly, individual's determination to stay in control of the illness and treatment, support from family and loved ones, sustaining hope and accepting their illness through confidence from clinicians and patients themselves (Bulsara, 2014). All factors were seen as

interconnected prime strategies for confidence building in spite of the fact that each patient had a varying degree of experiences. Evidence from this research is noted by the way patients created confidence as a way of gaining mastery of their situations irrespective of their prognosis. The researchers concluded that for patients to survive cancer illness then such patients might have demonstrated a high level of confidence in both themselves and in the care givers (Bulsara, 2014).

Liu-Ambrose, Khan, Eng, Lord, and McKay (2004) also investigated the confidence balance and how it improves with resistance or agility training among the aged since fear of falling could lead to restrictions in activities that are self-demanded rather than due to real physical disability. Women aged 75-85 were randomly sampled into one of three groups for investigation. Resistance training (n=32), agility training (n=34) and sham exercise (n=32). Each participant arms were held for 50 minutes exercise twice weekly. Findings: Negative balance confidence was correlated with poor and self-withdrawn exercise while positive balance confidence significantly correlated with improved general physical exercise and functions. This presupposed that age with confidence had an enhanced life through physical exercises with less fear of risk of fall and injury. Similarly, literature has reported a relationship between confidence and finding meaning in life. People with confidence develop a sense of purpose and control. Thus, the individual feels there is a benefit to belong. Such individuals are reported to have better resilience and recover quickly from adversities. (Alim et al., 2008).

Proposals have been suggested that confidence can enhance positive growth as a result of mental restructuring among people with chronic illness. These individuals alter their traumatic life experiences into the acquisition of wisdom and growth

(Llewellyn et al., 2013). Thus, when patients develop confidence either in themselves or in the clinicians it helps foster their resilience because they will be adhering to treatment regime and hopeful thinking. This assists them to find something positive in a negative experience and render the negative experience less aversive overall by lowering the discrepancy between the meaning of the event and positive global beliefs (Thornton, 2002).

Scientific research, including both qualitative and quantitative approaches, has been done to examine both confidence and meaning finding. For instance, in a systematic study, Stewart and Yuen (2011) report a lot of research indicating that people who were confident, benefit-finders and meaning seekers were better adjusted, had lower morbidity over time, and better mental well-being over their illness. Moreover, personalities with confidence and benefit-findings were shown to increase their resilience over the course of illness compared to those who were not (Stewart & Yuen, 2011). In other studies, Gotay, Isaacs, and Pagano (2004) investigated the qualities of cancer patients who had exceeded their life expectancies, notwithstanding their gloomy prognosis. The researcher found that most cancer survivors attributed their survival to their ability to foster resilience and a sense of meaning though confidence especially, in instances where risk factor and results are unexpected and unpredictable. According to Equally, Wenzel et al. (2002) a significant number of women who survived ovarian cancer narrated experiencing resilience and personal growth through confidence which consequently enhanced their sense of well-being throughout. Literature also revealed that individuals who report high levels of confidence and meaningfulness or purpose in life also tend to report lower levels of depression, anxiety, hostility, and stress (Thornton, 2002).

Nonetheless, the findings are not conclusive, as other research has revealed no or negative outcomes from over confidence and finding meaning or benefit. Research by Sherman, Cooke, and Grant (2005) reported that after facing a life-challenging illness, many patients who were transplanted expressed difficulty in developing and maintaining confidence and finding meaning, including values, and redefining themselves and their priorities. Again, in a study that investigated both psychosocial abnormalities of BMT patients, Fromm, Andrykowski, and Hunt (1996) stated that confidence and finding benefits were not associated with improved QOL or psychological adjustment. Additionally, Cordova et al. (2001) reported that, even though breast cancer patients described personal growth, their growth did not have significant relationships to depression, spiritual change, or appreciation of life. Finally, Tomich and Helgeson (2004) in their study found that exaggerated confidence and benefit findings predicted elevated distress between three to nine months post breast cancer diagnosis. Thus, the association between confidence and benefit finding and decreased mental distress is inconclusive (Tallman, Altmaier, & Garcia, 2007). The conflicting findings might be as a result of variance within cancer survivors as they try to reconstruct their expectations after traumatic events. Personal traits differences, such as hope and optimism, may influence how individuals view the world and build their confidence, prior and post setbacks (Tallman et al., 2007). This suggests that confidence and finding meaning and benefit may also be closely associated with other personality traits.

## **2.5 Support System that Influence Resilience in Women who Completed Chemotherapy for Breast Cancer**

Support system is defined by Merriam-Webster.com (2017) as a network of people who provide an individual with practical or emotional support. Support system includes social support, where one builds a positive relationship with others and this relationship serves as a buffer against setbacks such as illness and stress (Carpenter, Fowler, Maxwell, & Andersen, 2010), spiritual support where one seeks deliverance with a firm belief in the Supreme Being for healing, Rohde, Kersten, Vistad, and Mesel (2017) and financial/economic support, especially in a growing world of high cost of drugs and other investigations demand a physician discussion with the clients about their treatment modalities (Hamel et al., 2016; Robertson et al., 2015).

### **2.5.1 Social support**

One of the most widely investigated support system constructs, according to Ozbay et al. (2007), is social support. Also, the association between social support and well-being has been documented (Cohen, 2004) as Galván, Buki, and Garcés (2009) state that social support could be perceived or a real resource that is made available through social linkage which can empower an individual to feel being part of a network of society in which they are cherished. Studies found that the quality of support is a better determinant of health rather than quantity of support, meanwhile they both have an important role they play (Ozbay et al., 2007). Models on social support dictate two important characteristics. Firstly, there is structural element which involves the degree of interrelationship and network size. Second, we can talk of the functional element which consists of informational, emotional and instrumental features (House, 1981). According to (Cohen, 2004; Galván et al., 2009).

Informational support involves the delivery of suggestions, counseling and cancer treatment options that people can depend upon to take care of their challenges.

Emotional support concerns how relationships can offer an individual the opportunity to express themselves and vent their problems (Cohen, 2004). This enhances the strengths of communication such as trust, understanding, love, and empathy in the family (Teasdale & Bradley-Engen, 2010). Finally, instrumental support involves tangible and or practical aid such as transport and meals that help an individual directly when in need, thus decreasing the effects of negative situations (Cohen, 2004; House, (1981)). Social support among other constructs has been identified as being vital in assisting people to adapt to the hardships of illness (McCabe & Cronin, 2011; Yu, Lee, Kwong, Thompson, & Woo, 2008) ;. Several studies connect social support with a reduction in negative feelings, yet the association seems to be indirect, as social support is having either a stress-mobilizing or stress-buffering effect (McCabe & Cronin, 2011; Pieters, 2016).

Nonetheless, how social support organizes coping resources among individuals are not clearly understood (McCabe & Cronin, 2011). Studies suggested that social support enable people to manage stress (Kyngäs et al., 2001); foster resilience (King, Willoughby, Specht, & Brown, 2006); avoid negative self-assessment (Ozbay et al., 2007); supply assurance from knowing that others care and are dependable (Lundman & Jansson, 2007); promote better self-care (Park, Edmondson, Fenster, & Blank, 2008; Yu, Lee, Kwong, Thompson, & Woo, 2008); improve self-efficacy (Monsivais, 2005); encourage emotional articulation and certainty (Wills & Bantum, 2012); foster changes in accordance with way of life (Nagelkerk, Reick, & Meengs, 2006); and, offer help in treatment decision making

(Butow et al., 2015; Sheppard, Kumar, Buckley, Shaw, & Raza, 2008) and ensure adherence to treatment (Magai, Consedine, Neugut, & Hershman, 2007). These studies agree with findings by Aziato, Dede, and Clegg-Lamprey (2015) where they indicated that adolescents that received social and spiritual support developed a mind-set that assisted them to bear dysmenorrhea pain as compared to those that did not get the social support.

A systematic research consisting of people that suffered from physical illness such as cancer showed that social support predicted in many aspects of resilience in those investigations

Stewart and Yuen (2011). These were in the form of helping individuals to successfully live with the illness, finding meaning in life, improving self-esteem and promoting better cognitive health outcomes, Stewart and Yuen (2011). On the contrary, a defect in social support has been globally acknowledged as a risk factor for mental illness (Korszun et al., 2014); lower quality of life (Allart et al., 2013); and, worse mortality records (Kroenke et al., 2012). Parker, Baile, Moor, and Cohen (2003) proposed that examination of patients' degree of social support is actually the reliable way to recognize those patients that are possibly prone to anxiety and distress after cancer diagnosis and treatment. A study by Frick, Borasio, Zehentner, Fischer, and Bumedel (2004) reechoed this in their research consisting of 126 leukaemia patients, who explored their health values and adaptation styles prior to autologous stem cell transplantation. Several questionnaires focusing on health-related control expectancies were completed by study participants, precipitating factors as well as causes of personal illness and adapting with their illness. The findings showed that

supportive relationships with others, such as family, are essential for managing their disease (McCabe & Cronin, 2011).

The vital effect of social support has been documented in literature investigating breast cancer patients. For example, Peterková et al., (2017) in their research concluded that effective social support was associated with enhanced emotional and cognitive feelings and quality of life, Santos, Kozasa, Maria de Lourdes, Colleoni, and Leite (2006); and agreeable relationship with family members and friends (Zebrack, 2000). Fulfillment with social support is estimated to increase quality of life between five to ten years after treatment among blood cancer survivors (Lim & Zebrack, 2006). In a systematic review, report showed that negative variables affect social support and impact quality of life among cancer patients (Allart et al., 2013).

For instance, disagreement with family and or friends has been found to decrease the self-fulfillment with support and could lead to emotional uncertainty which can impact on ability to cope with cancer. This is in consonance with existing literature that draws attention to the fact that defective social support within interpersonal connections can result in negative (Drageset, Lindstrøm, & Underlid, 2010; Landmark, Strandmark, & Wahl, 2002). Additionally, Allart et al's review indicated that one research work identified that the number of social support network does not correlated with quality of life (Gallager, 2016; Lim & Zebrack, 2006). It can be inferred that relationship quality, and not just quantity, is important to cancer survivors (Allart et al., 2013).

To summarize, the study pointed out that social network enhances resilience among cancer patients. Nonetheless, it is not fully understood as to how social

network specifically operates in promoting positive effects on coping among breast cancer patients, and why some individuals mobilize more sufficient social support mechanisms than others. The notion that social network might have a positive influence on self-esteem and self-efficacy has also been recommended (Robinson, 1997). The possibility that a poor level of social support is an outcome rather than a cause of poor adaptation has also been suggested (Moss, 1997). For instance, when a person rates himself down it will result in self-withdrawal from activities and social gathering this, in turn, decreases that person's social support opportunities (Moss, 1997). It has also been proposed that optimistic breast cancer survivors will probably seek support groups and stay active in their localities (Korszun et al., 2014). Literature however did not particularly recognize which areas of social support networks are highly influential in identifying resilience among women with breast cancer. Therefore, it is vital to examine social support in details as it is understood that social support is a major protective factor among cancer population.

A quantitative study of 94 participants conducted by Sternas (2016) on adaptation, social support and wellness of women with breast cancer revealed that BC patients who received support from their husbands (Brenda, 2015), friends, church members, and neighbours showed little or no depression, isolation and less mood disturbances. Shrestha et al. (2014) equally found that BC women who received poor social support exhibited high emotional disturbances with little resilience. I concur with Shrestha et al's. (2014) assertion because one may not have someone to share problems with in situations that demand comforting and reassurance from loved ones. A quantitative research of Kim, Han, Shaw, McTavish, and Gustafson (2010) to investigate how social support and coping strategies are connected with forecasting

emotional well-being of women with breast cancer found that there was a significant mediation of social support in predicting the emotional well-being of breast cancer patients, in that the more the support the greater the resilience and the higher the survival of cancer patients. These finding presume that so far as a client has people around them during their ailment period help to boost their -fight-effortl in order to overcome the disease condition.

On the contrary a one-year follow-up survey determining the socio-demographic information, quality and quantity of social support, and emotional well-being by Fong et al. (2016) revealed that, a reduction in social support quality was a major determinant of increases in depression, stress, and negative affect in breast cancer patients, explaining an additional 4 to 6% of variance in the emotional well-being outcomes as compared with social support quantity. This point of view is not farfetched, especially so when the patient is the bread winner of the family. She may have family members around her but the quality of support in terms of negotiating her care, purchasing of drugs and payment for other medical utilities, encouragement and reassurance may be deficient.

Research has categorized the church as a social enterprise (Mabwe, Dimingu, & Siyawamwaya, 2018) that channel it resources towards the general benefits of people both the sick and the well (Taylor, Chatters, Lincoln, & Woodward, 2017). Thus, most religious groups donate resource for the care of the vulnerable, the sick and in some instance to the developments of nations. For example, in a comparative study in Zimbabwe reported that during economic meltdown, many religious organizations take charge of several areas of a country's welfare including building hospitals and paying for patients treatments (Mabwe et al., 2018). In that comparative

study between the then missionaries work and the current role of religious organisations, Mabwe et al. (2018) identified that churches have not deviated from their role such as developing societies in which they are established and contributing towards the general well-being of the patients. In a correlational study Taylor et al., (2017) examines the instrumental support exchanges that occur between church members among African Americans and reported that churches and church members play many supportive roles including assisting people during their illness. Similarly, in Ghana, religious organisations have also been assisting patients through donations of food items, toiletries and money for the care of patients (Donkor, 2016). In Romania faith-based organisations have also been reported to be involved in the development of social and medical services that benefits patients and their families (Taylor et al., 2017)

### **2.5.2 Financial support**

A documented hazardous factor that may exist in any network of people is low socioeconomic status (SES). It has been identified that low SES among cancer patients receiving treatment has increased risk of worry, partly resulting from their decreased ability to interrelated and communicate successfully with clinicians (Gallager, 2016). Research by Isaksen, Thuen, and Hanestad (2003); Yaghmaian, (2016), reports that people who have lower educational background frequently experience increased problems including how to understand medical terminology, which may lead to feelings of disempowerment. Hence, these people end up isolating themselves from communities that provide them with healthcare thus, getting less support. However, studies by Butow, Girgis, and Schofield (2013) reported that SES was not correlated with either support or information and physical needs among

immigrants, which is converse to earlier research. However, Butow et al. (2013) suggested that the difference might be that access to and uptake of support services within low SES communities is influenced by cultural factors, linguistics and probably money. For instance, Galván et al. (2009) revealed in their study that, among ethnic groups that are in minority social support and financial assistance are often limited. Thus, accounting for insufficient information access and decreased health awareness that could enhance healthy adjustment to cancer, including the underutilization of psychological health treatment (Galván et al., 2009; Turner, Hastings, & Neighbors, 2018).

Consequently, SES has become a vital point to consider, as studies has showed a direct relationship the availability and access of community health services and an overall adjustment to cancer (Isaksen et al., 2003). Also, more consideration regarding multicultural variables could prompt more positive results, for example, compliance with treatment, empowerment and uptake of community health services (Butow et al., 2013). Regardless, studies in this area is limited (Galván et al., 2009). The negative effect of money related hardship on wellbeing in general, and cancer related after-mouth in particular cannot be over emphasized (Tucker-Seeley & Yabroff, 2015). For instance, in a quantitative study using adjusted analysis by Kale and Carroll (2016) to investigate the financial burden of cancer care, found out that, cancer survivors with financial incapacitation demonstrated lower physical component score and expanded chance of depressed mood and are more likely to be worried about cancer reoccurrence.

Again, cancer patients who had financial burden have been connected to renouncing/postponing medical care, skipping follow-up visits and discontinuing

medications while those without financial burdens cooperate and adhere to their treatment regimen (Kale & Carroll, 2016). According to Nekhlyudov et al. (2016) an estimated 15% of respondents in a cancer survivorship experiences study with insurance and finances, indicated, experiencing financial difficulty due to cancer resulted in decline promotion and hampered with their physical and cognitive task. And for one to demonstrate resilience one need a stable support system, physical, and mental comfort to be able to buy treatment and pay for investigations, but in situations like the above where there is impaired support system as a result of financial hardship may undermine resilience in those patients. Similar studies by (Hastert et al., 2017) revealed that participants who borrowed money to pay for cancer care had limited care due to cost. This may have negative influence on the client's resilience outcome thereby leading to non-adherence to treatment or skipping medication and impede resilience.

### **2.5.3 Healthcare professional support**

Community support for cancer patients as a major protective factor has been identified and documented in literature by various authors (Butow et al., 2007; Doyle, 2008). Nevertheless, notably absent/scarcely from ill health and resilience studies are the role and influence of clinicians (Knott et al., 2012). As a result of a series of services available at the community level, neither predictable definition nor consistent explanation for health professional's support has been offered. Yet, clinicians support is overall regarded to include the aid provided by people outside the family to include nurses, doctors, allied health professionals, internet information and traditional health attendants (Friedman et al., 2010). A study by Adejoh et al. (2013) reported that Leukeamia patients' self-efficacy and hope were developed through the interpersonal

support they got from their interaction with health-care professionals. This assisted them to adjust to living with their condition. This qualitative study had a sample size of 20 participants. The participants reported that reassurance, empathy, respect, listening, and emotional support are particularly vital to cancer patient's adjustment to their illness.

Additionally, this research further endorsed existing studies that emphasize the role of rapport and empathy (Knott et al., 2012), including a trusting and warm reception and environment, whereby a patient feels cherished or valued and is treated as a unique person (Butow et al., 2011). Yet, many studies have indicated that this is not a frequent reality that cancer patients experienced (Knott et al., 2012). The support is noted to lack continuity and participants in several researches have described a need for expanded information and compassionate support from the healthcare professionals (Butow et al., 2013; Roundtree, Giordano, Price, & Suarez-Almazor, 2011; Swash et al., 2014). For instance, Lobb et al. (2009) reported that 59% of leukaemia survivors in their research felt it would have been beneficial if they were to meet with the clinicians at the end of treatment. This could have enabled them to be prepared during the transition stage (Lobb et al., 2009).

Knott et al. (2012) argued in favour of this view, after they identified that for several patients with cancer, the lack of satisfaction with the health-care system becomes adequately clear after the acute phase of their illness. In spite of the practical support offered during diagnosis period, when participants end treatment they find no communication and support anymore (Knott et al., 2012). In post survivorship phase, the focus of the patient overall shifts from just going through treatment to a broader view of quality of life and continuing survival (Knott et al., 2012; van Leeuwen et al.,

2018). To many of these patients it is at this stage of transition period that they begin to realize a sense of failure and loss by the healthcare system. The focus on treating cancer remains the priority among several practitioners rather than the holistic consideration of these survivors. However, this study reported that, participants revealed the benefits of follow-up communication and continuity in care following treatment (Cheng, Cheng, Wong, & Koh, 2018; Keats et al., 2018; Knott et al., 2012; Ramsay et al., 2018).

A study by Roundtree et al. (2011) also reaffirmed the importance of physician communication among patients with terminal illness. With a qualitative study of breast cancer survivors, a focus group of 8 (n=33) identified many issues. Some of these issues were poor relationship with clinicians, barriers to screening, feeling in limbo within the healthcare system and communication difficulties. The authors concluded their study with the report that experiences of survivors are. This study concluded that the survivors' experiences are fraught with challenges, particularly in locating a physician who can actually address both their personal needs and also coordinate their healthcare (Roundtree et al., 2011).

Good interpersonal relationship and, more importantly, communication between patients, family and physicians is cardinal to the concept of social support. Limited information sharing through communication with cancer patients on psychological and physical symptoms can lead to increased adverse psychological and physical morbidity (Knobf, 2011). The communication in each context depends on the varying needs of each patient and their interpretation of the relationship, Ungar et al. (2008) since not every physician or person will communicate in the same way. The health-care system tends to have a different communication style whose main focus is

on treating patients' illness, consequently, patients might view the physician as less concerned in their personal experience (Crane, 2018; Gallagher, 2016; Ofri, 2004). Moreover, typically, physician's appointment times are always short, an additional second acknowledge as being offered for patients with mental problems (Howie et al., 1999; Liu, Finkelstein, Kruk, & Rosenthal, 2017; Schildmeijer, Frykholm, Kneck, & Ekstedt, 2018). These time limitations can imply that patients' mental health concerns are not generally managed suitably (Swash et al., 2014).

Various investigations have featured the significance of communication amongst clinicians and patients with cancer, particularly concerning giving important disease related data (Rabin, Simpson, Morrow, & Pinto, 2011), about 84% of women who survived cancer narrated a need for interventions that are information based. This view is affirmed in a study indicating that patients with cancer and their families need education and informative support to facilitate their effective coping after diagnosis and treatment of (Adejoh et al., 2013; Piazza et al., 2017).

Furthermore, a qualitative study involving 73 migrants by Butow et al. (2011) showed that difficulties with language and communication, as well as cultural isolation with cancer patients and interpreter problems, are all factors that contributed to difficulties in recovery Swash et al. (2014) in their systematic studies among leukaemia survivors agree with these findings. Including the fear of disease reoccurrence, information given by the leukaemia survivors was the only major area of need established (Swash et al., 2014).

In summary, the level of resilience displayed by people with illness can be fundamentally influenced by the level of support and communication with multidisciplinary groups of experts responsible for their care acting as either

protective process or as a risk (Knobf, 2011). The outlined data highlight that satisfactory information and support from leukaemia patients across the trajectory are essential protective factors among individuals that survive cancer (Carr 2004)

## **2.6 Adaptations Strategies Women with Breast Cancer Adopted to Complete Chemotherapy**

According to Robertson et al. (2015) adaptation is flexibility, inner strength and ability to cope with change which might be outside one's control. For instance, adaptation during diagnosis demands immediate life modifications to meet treatment demand (Durá-Ferrandis et al., 2017). Patients who adjust and build inner strength during treatment show better health outcomes (Viglund, Jonsén, Lundman, Nygren, & Strandberg, 2017). News of a cancer determination can be troubling for several reasons such as confronting a conceivably life-debilitating illness, great fear of the unknown and functional hardships. For instance, a drastic change in one's professional, financial and individual's life (Durá-Ferrandis et al., 2017; Sarenmalm, Browall, Persson, Fall-Dickson, & Gaston-Johansson, 2013). Baseline qualities and mechanisms in the prompt diagnosis time frame might be useful to comprehend patients medicinal and cognitive illness before and after treatment. For instance, patients with more prominent inner strength at baseline have revealed diminished pain, better adapting procedures, and enhanced Quality of Life (QOL) (Durá-Ferrandis et al., 2017; Sarenmalm et al., 2013). Similarly, meaning making and inner strength have been shown to improve optimism and aptitude among clients with breast and colon cancer (Durá-Ferrandis et al., 2017; Molina et al., 2014)

Individuals from families with known hereditary defenselessness to tumour have revealed that baseline hopefulness energizes more noteworthy self-care and,

eventually, empowers inward quality for people and their families living with cancer (Durá-Ferrandis et al., 2017; Molina et al., 2014). A quantitative pilot study with metastatic colorectal cancer patients revealed that the harmony between expectation and sadness assumes a vital part in the way terminally ill patients report quality of life, and personal resilience might be identified with hope at the end of life (Solano et al., 2016). In a handbook by Carver and Scheier (2017) on optimism, coping and well-Being among breast cancer patients, they indicated that a better way for adaptation is through optimism and the worse way is pessimism. The optimists in their view demonstrate hope, and desire for something good out of their present situation while the pessimists desire and expect nothing better from their ill health and as a result end up with diminished and vanished hope and well-being (Carver & Scheier, 2017).

### **2.6.1 Self-efficacy**

Self-adequacy speaks to the impression of one's capacity to adjust or alter a situation and manage new difficulties properly (Bandura, 1977). The theory of Self-efficacy proposes that the more noteworthy a person's trust in their capacity to deal with a situation, the higher the likelihood they will overcome wanted objectives and adjust properly (Bandura, 1977). In health psychology, self-efficacy is viewed as a positive asset and a defensive factor that adds to a patient's adjustment to emergency disease (Bandura, 1977). For instance, a study by Schumacher, Sauerland, Silling, Berdel, and Stelljes (2014) on the benefits of self-efficacy among individuals who survive cancer in Germany examined the association between quality of life, self-efficacy, anxiety, depression and resilience after the transplant of allogenic stem cell. The results found an increased association between adaptation, self-efficacy and

resilience. In addition, the findings also identified an association between resilience and quality of life and social performance with depression and anxiety as negative correlates. This result could be construed to mean a sign of coping by successfully managing the process of readapting. The researchers underscored that promoting resilience and coping throughout the life span would enable people with cancer to regain their everyday life by adjusting to the difficulties they encounter in an unpredictable world (Schumacher et al., 2014).

Existing literature indicates a positive correlation between resilience and adaptation among people with cancer and terminal illness (Folkman & Lazarus, 1985; Reed, Wood, Harrington, & Paterson, 2012; Wills & Bantum, 2012). For example, impacts on the accomplishment of interventions to decrease anxiety in the aged with type 1 diabetes (Fisher et al., 2016); including mental health among people with ovarian cancer (Prati & Pietrantonio, 2009; Stewart & Yuen, 2011), rheumatoid arthritis (Zeiadin, Woo, Verreault, Tripp, & Joneja, 2017) diabetes (Wu, Sheen, Shu, Chang, & Hsiao, 2013), chronic disease and depression (Bisschop, Kriegsman, Beekman, & Deeg, 2004) and stroke victims (Reed, Wood, Harrington, & Paterson, 2012; Sadler, Wolfe, Jones, & McKevitt, 2017) coping skills.

Folkman and Lazarus, (1985) first recognized adaptation as vital for adjustment to distressing situations. Adapting can be characterized as continually changing subjective and social endeavours to manage particular outside as well as inside demands of a person that are evaluated as exhausting or surpassing the resources of the individual. In this way, an individual diagnosed of having BC will assess the circumstance by deciding the risk or test the diagnosis represents, and will react with specific interventions so as to adjust and manage with the associated

distress. Although most BC patients do not encounter real psychopathology, negative cognitive appraisals due to the stressors of a BC diagnosis can bring about mental symptoms, for example depression, anxiety and anger (Fletcher & Sarkar, 2013).

Previous study on coping reports that there have been several conceptual frameworks to depict reactions to stress, every-one of which seems applicable to cancer survivorship. These include primary (improves one's control over ecological circumstances) and secondary control systems (attempts to adjust to the conditions (Rothbaum, Weisz, & Snyder, 1982); problem-focused versus emotion-focused coping (Lazarus & Folkman, 1984); and, the approach versus avoidance model (Roth & Cohen, 1986).

Literature based on the traditionally coping worldview (Lazarus & Folkman, 1984) normally separates between problem-focused coping (PFC) and emotion-focused coping (EFC). Firstly, PFC includes the efforts of a person to adjust the requests forced upon them by characterizing the pressure, creating thoughts and then acting on a solution to change the danger. On the other hand, EFC involves attempts to suitably express the feelings experienced by giving specific consideration that is diminish, maintain a strategic distance from or limit, with a specific end goal to modify the way the individual considers or feels (Lazarus & Folkman, 1984). In resilience studies, it would seem that PFC or approach coping has been related to increased performance and more resilient results. However, there is some theory in the cancer-related literature that both adaptation styles may be helpful when utilized simultaneously. For instance, Austenfeld and Stanton (2004) reported that when people take part in both PFC and EFC, it enhances in adjustment which brings about resilience., yet their functions maybe different. For example, it is suggested that PFC

may lead to instrumental achievements such as booking important medical appointments, while EFC may prompt look for emotional support, which could help decrease anxiety and depression thereby enhancing coping (Wills & Bantum, 2012). Nonetheless, authors largely agree that PFC in terms of stress management among cancer patients is more effective compared to negative styles. Optimism, control, problem-solving and support seeking are more promotive factors that enable individuals with cancer to cope and turn into positive coping style (Pieters, 2016).

On the contrary, a coping style which is negative in nature such as deliberating and intolerance among women who survive breast cancer has been identified to be linked with an increased fear of cancer recurrence and poor coping (Mehnert, Berg, Henrich, & Herschbach, 2009), as well as an adverse outcome on health-related QOL (Shim et al., 2006). Likewise, additional research among survivors of breast cancer by Zwingmann, Wirtz, Müller, Körber, and Murken (2006) found that a negative coping behaviour was clearly and positively associated with depression and anxiety, while an active form of adjustment was not associated with anxiety and depression.

Furthermore, Lazarus and Folkman (1984), model on coping has also been debated on in the literature in relations, with method, for instance, problem-solving, reappraisal as opposed to avoidance such as psychological and attitudinal detachment styles (Bellizzi & Blank, 2006). Result from research on people living with cancer of the prostate proposed that approach-focused adaptation is mostly supportive, while avoidance adaptation approaches are prone to be related to inferior consequences (Roesch et al., 2005). For instance, research by Park et al., (2008) endorsed this position by stating that, approach coping among survivors of breast cancer is related to optimistic well-being behaviours changes, but avoidance coping is associated with

depressive changes. Yet, there are studies to show that the type of adjustment style could be influenced by situational issues, like the phase of cancer survivorship.

For instance, an examination into coping strategies during an encounter with various stresses by cancer patients suggest that avoidance coping was connected with additional positive coping in the short-term. However, over time, approach adaptation appeared extra adjustable. This meta-analysis was concurred by Suls and Fletcher (1985) who reported that individuals who survived cancer, an avoidant psychological adaptation style, might be an additional coping resilience factor in the acute stage, however, for long-term cancer survivors it could be a threat and is associated with increased mental distress (Kerstin et al., 2013).

Besides, avoidance coping is also found to be profitable for overwhelming stressors such as invasive therapeutic techniques (Fraess-Phillips, Wagner, & Harris, 2017; Taylor & Stanton, 2007; Weisz, McCabe, & Dennig, 1994). This pre-supposes that avoidance coping may give prompt benefits to cancer patients by substitute as a shield. Yet, persistent use of protective adaptation could result in negative outcome. This viewpoint is agreed on by Gallo, Amsler, Gwerder, and Bürgin (2003) who established from their investigation of the aged childhood cancer survivors that, -effective incorporation of the experience of cancer may be connected with the capacity to accept painful feelings and to permit them to occur. Consequently, it could be vital to study time since diagnosis, when assessing adapting and coping behaviours of persons with cancer. Aside approach adaptation and positive reframing, there are different other techniques, for example acceptance has been revealed to nurture better results in dealing with a diagnosis of cancer (Carver et al., 1993; Kenzik, Huang,

Rizzo, Shenkman, & Wingard, 2015).

For instance, one's reply to acceptance coping during diagnosis was defined to be related to better mental adjustment a year after treatment. This led the authors to recommend that prior acceptance may be associated with higher coping and an extra active approach to management of therapy and recovery (. Park, 2010; Stanton et al., 2002a). Dynamic adapting and diversion have likewise been identified to be helpful coping skills (Lauver, Connolly-Nelson, & Vang, 2007). In a study to determine coping skills among gynaecological and breast cancer survivors post treatment, the finding indicated that active coping skills such as diversion and problem solving were reported to be highly associated with better coping and improved emotional wellness (Lauver et al., 2007) Nonetheless, literature remains uncertain as to which adaptation techniques are best, when and in which conditions (Wood & Bhatnagar, 2015; Wu et al., 2013)

### **2.6.2 Spirituality**

Previous studies have showed that finding meaning through prayers and meditation promote resilience of people who are faced with setbacks (Adejoh, Temilola, & Olayiwola, 2013). Whereas there is no concurred definition in literature (McGrath, 2004), some researchers have outline spirituality as more extensive or broader than religion including the capacity to past oneself as to understand the importance of existence (Choumanova, Wanat, Barrett, & Koopman, 2006). There is a growing body of evidence that spiritual support influence resilience among BC survivors. For instance, Park, Brodeur, and Daniel (2017) found that, adolescent cancer survivors spiritual well-being predicted psychological adjustment after cancer treatment. Park et al. (2017) further stated that, those battling with spiritual issues experienced poorer psychological adjustment one year after treatment. The

fundamental point featured in previous studies is that spirituality and religion give a framework within which people can emphatically evaluate adverse experiences and endeavor to manage mental misery (Sears, Stanton, & Danoff-Burg, 2003). For instance, in a qualitative research involving 20 haematological survivors by Adejoh et al. (2013) in Nigeria, results showed that spirituality was seen as an escape from agonizing over medical problems. This agrees with previous literature recommending that spirituality has an essential part in helping people understand the causes of cancer and can enable them to keep a feeling of equity and justice (Choumanova et al., 2006).

Similarly, a qualitative investigation into the ethno-cultural coping mechanisms of affected communities by Asian tsunami and evaluating resilience in the face of incomprehensible adversity by Rajkumar, Premkumar, and Tharyan (2008) revealed that Survivors cherished their unique personality, and spiritual coping strategies more than formal mental health services. Rajkumar et al. (2008) finding is similar to our setting here in African and Ghana in particular. For instance, Akuoko et al. (2017) identified socio-cultural factors such as belief (spirituality) and tradition as factors that had effect on breast cancer women health seeking attitude. Often times one wants to belief in God than in orthodox medicine or on other reason that are best known to them. The individuals often resolve for alternative source of BC care including traditional healers and or herbalist (Clegg-Lampsey, 2017) and by the time they come for orthodox treatment their condition will have been complicated leaving them no resilience to survive (Akuoko et al., 2017). Additionally, some researchers believed spiritual health seeking behavior is good and assists in finding meaning and

hope for such persons since cancer is often viewed as diseases of the spirit (Clegg-Lamprey, 2017).

According to Gall and Bilodeau (2017) Positive spiritual attributions were reliably identified with positive aspects of adjustment in breast cancer patients (e.g. positive evaluation, acknowledgment, adaptive, and emotional well-being) while negative spiritual attribution was identified with negative coping, and/or emotional distress). A Cross-lagged correlational analysis by Gall and Bilodeau (2017) revealed a ‘downward spiral’ effect in patient who had positive spiritual believe wherein the negative attribution of God’s anger at pre-diagnosis predicted greater distress at 1 week pre-treatment which in turn predicted an increase in the negative attribution and so on across time. It is therefore necessary to inferred from the above literature that patients who have positive spiritual connections to their ill health have better coping strategies and may have better health outcome compare to their peers who may have negative/no spiritual connections to their disease conditions (Clegg-Lamprey, 2017). Choumanova et al. (2006) also explored the meaning of spirituality among 27 Chilean women with breast cancer.

The research found that, the essential assets for these women were spirituality and religion during the course of their cancer treatment. Spiritual faith and believe in God were identified by the authors as having assisted the women recover from cancer and treatment adverse reactions. Hulett et al., (2018) in his interview with 24 breast cancer women similarly reported that, personal spirituality of breast cancer women was associated with each woman’s capacity to see her own transition as a process of growth from the breast cancer. Even though these literatures were studies of small qualitative designs, several other researchers have expanded the frontiers of all

different aspects of spirituality by investigating the variability in spiritual responses (Hulett et al., 2018). For instance, utilizing spirituality appears to give the individual a feeling of strength in relation with taking control of their life and recuperation following treatment (Gall et al., 2005; Northouse, 2018; Worden, 2018). Spiritual support is depicted as a group of coping techniques that an individual applies both first, subconsciously such as believing in good outcomes and positive appraisal and second, actively, which includes prayer, meditation and connection with nature (Arrey, Bilsen, Lacor, & Deschepper, 2016; Reynolds, 2006). The ability of the individual to use these strategies effectively to reduce stress assists them in the process of adjustment (Charles, 2016; Gallagher, 2016).

### **2.6.3 Preparedness**

In a conceptual framework on chronic illness and the life cycle, Rolland (1987) reported that people learn from their experiences in the past and those experiences influences how they think about their present life situations. When patients perceive their illness as something they experienced before, they are able to cope better (Hopman & Rijken, 2015). Similarly, Larkin et al. (2018) in their study in Albany USA found a positive association between adverse childhood experiences and increased service use among adults. Thus, they identify strategies that assisted them in the past and adopt it to cope with their present challenges. This is inconsistent with findings of (Rando, 1983). In his investigation of experiences and coping of 54 parents 2 months to 3 years after the death of their child from cancer revealed that participants adjusted poorer after experiencing the death of their children to difficult life circumstance later in life. In a related study Cook et al. (2017) reported that adolescents exposed to painful trauma frequently experience lifelong difficulties. This inconsistent in literature could be due to the form or type of one's experience. It is

therefore, unclear how past experiences influences resilience among cancer patients as Lam et al. (2017) reported that pre-existing experience to life stress are possible risks for long-lasting distress in response to breast cancer.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

This chapter focuses on the research design, setting, target population, sampling, data collection and data analysis.

#### **3.1 Research Design**

Qualitative exploratory descriptive design was used to explore factors influencing resilience in women who completed chemotherapy for breast cancer in Accra metropolis. Creswell and Creswell (2017) explained that, qualitative exploratory descriptive research design enables a researcher to explore how people understand and describe human phenomenon. This design is used when little is known about the topic to be studied and the researcher wishes to know more about the phenomenon (Creswell & Creswell, 2017). It is also used when the researcher wishes to explore the lived experiences of people (Padgett, 1998). According to Hasson-Ohayon, Goldzweig, Braun, and Galinsky (2010), qualitative research seeks to explore and describe individual experiences such as the interpretations, accounts and meanings that people ascribe to social, physical and psychological phenomena. This design enabled women with breast cancer to give in-depth and detailed descriptions of factors they believed influence their resilience after receiving chemotherapy. Also, it allowed the researcher to probe into the breast cancer survivors' experiences following chemotherapy treatment, confidence trait that influence resilience, purposive factors that influence resilience, personal traits that influence resilience and the coping strategies survivors adapted to during chemotherapy in the context of the study.

### 3.2 Research Setting

The study was conducted in the Accra Metropolis. Accra is one of the ten administrative regions of Ghana. The intersection of the Lafa stream and Mallam junction serves as the western border of the city. The Great Hall of the University of Ghana forms Accra's northern border, while the Nautical College forms the eastern border. The Gulf of Guinea forms the southern border. Accra covers a total land surface of 3,245 square kilometers. Accra is an urban metropolis with a total population of 2,905,726 from the 2000 census. Accra is the capital and largest city of Ghana with over 10 sub metros namely, Osu Klottey, Ashiedu Keteke, Ablekuma Central, Ablekuma South, Ablekuma North, Ayawaso Central, Ayawaso East, Ayawaso West, Okaikoi North, Okaikoi South, Ayawaso West Wuogon, La and Okaikoi South

The Accra Metropolis economy activities consist of manufacturing, farming, fishing, real estate, quarrying, electrical, construction, wholesale trade, financial intermediation, service, retail trade, hotel, restaurant services, gas and water manufacturing, transportation, storage, communication, education, public administration, health and other social services. Economically active population of Accra is estimated to be 823,327.

The health sector within the Accra metropolis keeps increasing. There are many levels and categories of health facilities within Accra and these are divided into government, quasi-government, private and mission. The levels include; community health improvement services, poly clinics and hospitals. There are over 20 Hospitals in Accra metropolis. One of such hospitals is the Korle-Bu Teaching Hospital

(KBTH) which will serve as the recruiting centers of participants for the study. The hospital was established on 9<sup>th</sup>, October 1923; the Korle Bu Teaching Hospital has about 2,000 bed capacity. It is currently the third largest Hospital in Africa and the leading national referral center in Ghana. The hospital gained teaching hospital status in 1962, when the University of Ghana Medical School (UGMS) was established for the training of medical doctors. At the moment, KBTH has 17 clinical and diagnostic Departments/units and three national centers, that is, the National Reconstructive Plastic Surgery and Burn Centre, the National Cardiothoracic Centre and the National Centre for Radiotherapy and Nuclear Medicine.

However, the chemotherapy unit in oncology department (Herbert Osei Baidoo Ward) of KBTH will be used as the recruitment centers of participants for the study. The new Herbert Osei Baidoo Ward has a brand-new chemotherapy unit with reclining armchairs and television for entertainment that gives clients comfort whilst receiving their treatment. The unit has a new cytotoxic room, where pharmacists can mix and store toxic drugs safely, an increased and equal number of beds for all calibers of patients. There is air conditioning throughout the ward, a new washroom with suitable facilities and a waiting room for visitors and families. It was inaugurated on 2nd May 2013 thereby making it the best point for recruiting participants for this study.

### **3.3 Target Population**

The target population was all women with breast cancer residing in the Accra Metropolis who have completed their chemotherapy 3months prior to this study.

### **3.3.1 Inclusion criteria**

The criteria for inclusion in the study was women with breast cancer who are: (a) above the age of 18 years, (b) women who had received and completed their chemotherapy 3 months prior to this study. (c) and could speak English, Twi and Ga.

### **3.3.2 Exclusion criteria**

Those who were excluded from the study are: (a) women who had breast cancer but are still at their terminal stage, (b) women who had breast cancer and had received chemotherapy but are still in pain, (c) women who had breast cancer and received chemotherapy but had altered mental state.

## **3.4 Sampling Technique and Sample Size**

The researcher employed purposive and snowball sampling technique for data collection. According to Tongco (2007), purposive sampling is the deliberate choice of participants due to the qualities of information they possess. In other words, purposive sampling is the selection of informant founded on unique common characteristics, to ensure that interpretations are established through a rich and comprehensive pool of data (Hasson-Ohayon et al., 2010). Thus, sampling participants can provide varying and even conflicting viewpoints, which can greatly strengthen the description of the phenomenon (Polit & Beck, 2006). In this study, purposive sampling had ensured that there is a level of diversity in the participants such as: time since diagnosis and age. This diversity aided in exploring a wide range of experiences from breast cancer survivors and provides a comprehensive account of factors that influence their resilience as a technique where existing study subjects recruit future subjects from among their colleagues. Snowballing was also employed because participants received the treatment together and they all live in Accra so, it

was easy for them to locate their colleagues for the study. The researcher selected participants who can best provide information on the phenomenon under study. Two nurses helped in identifying women with breast cancer who received and completed chemotherapy at Korle-Bu Teaching Hospital (KBTH) chemotherapy unit. The sample size was 12 participants. This was due to data redundancy or saturation (Gallager, 2016). Data redundancy is the point at which no new responses emerge from the respondents (Creswell & Creswell, 2017; Gallager, 2016).

### **3.5 Data Collection Tool**

Semi-structured interview guide was used to interview each participant through a face-to-face approach. A face-to-face interview enable participants narrate experiences in-depth and also allows the researcher to probe participants when necessary (Creswell, 2014). The interview guide was made up of section A and B. Section A contained the demographic information of the participant while Section B was made-up of open-ended questions that were developed from the resilience model and the objectives of the study.

### **3.6 Data Collection Procedure**

Permission was sought by the researcher from the chemotherapy unit through KBTH administration with an introductory letter from the School of Nursing and Midwifery, University of Ghana. Attached to the introductory letter was a copy of the information sheet and ethical approval letters. The purpose of the research was explained to participants after which an information sheet containing the purpose of the research was given to women with breast cancer who were qualified to take part in the research (inclusion criteria) and researcher's number was handed to them and the participant's numbers too were taken after they had consented. One week before the

interview participants were given a consent form. This enabled participants to have a thorough understanding and reflection on it and also assisted them to clarify any concerns they had. The participants were interviewed at a venue and time suitable to them. Demographic information was collected at the beginning of the interview and was recorded.

Participants were allowed to sign the consent form before commencement of interview. The interview languages were in English, Twi, and Ga, and lasted between 45-60 minutes and was audio-recorded under participants' consent. The researcher also probed during the interview for in- depth understanding of participants' experiences. Where clarifications were needed, second interviews were conducted and participants were also allowed to validate key findings at the end of each interview. Also, confidentiality of participants was ensured by keeping their information under lock in a cabinet and in a folder on the computer. Documentations of non-verbal communications like, tearing, frowning, smiling and other facial expressions were done in a field diary. This assisted the researcher to understand and interpret data appropriately during analysis. Research assistants were also trained for the non- English interviews.

### **3.7 Pretesting of the Interview Guide**

Pretesting of the interview guide is the process of interviewing small participants who share similar characteristics as participants in the study setting to ensure appropriateness of the interview guide (Hennink, Hutter, & Bailey, 2011). The interview guide was however pretested on two breast cancer survivors who completed their chemotherapy at the 37 Military hospitals. This was to ensure that the research questions were clear enough to elicit appropriate responses and are

understandable to participants. Questions that were not clear were restructured. The data gathered from the pretesting were not included in the main study because, the wording of some of the probing questions were adjusted after pretesting to meet the expected understanding of participants.

### **3.8 Methodological Rigour**

Trustworthiness in qualitative research ensures that findings accurately represent exactly what participants have said and that findings can be trusted (Lincoln & Guba, 1985). Rigour of a research can be accurate when the researcher applies the appropriate research tools in order to meet the stated objectives of the investigation (Creswell & Creswell, 2017). Thus, to ensure trustworthiness of the research, the criteria of credibility, transferability, dependability and conformability must be achieved (Lincoln & Guba, 1985).

#### **3.8.1 Credibility**

Credibility is attained when the findings from the data reflects reality and are believable (Shenton, 2004). Thus, to ensure credibility, participants were purposefully recruited after meeting the criteria by the researcher. Participants included were those who could provide in-depth information on the lived experiences on factors that influence their resilience during the cancer treatment. In addition, member checks were done to validate participants' responses by discussing themes arrived at together with the participants. Credibility is also enhanced through triangulation, a method of rigour advocated by many authors (Lincoln & Guba, 1985; Service, 2009). In this current study, triangulation was obtained by summing up data through different methods such as from individual interviews and field notes and also by including different participants at each stage. Furthermore, an independent coder was requested

by the researcher to code some of the transcripts to allow for comparisons to be made. To further strengthen the credibility of the study, prolonged engagement was ensured by establishing rapport and building trust with the participants. The interview recordings were also frequently listened to and re-reading of the transcripts done to ensure accurate reportage. In the current study two supervisors that were not involved in the data collection, had reviewed the transcripts and participated in the full analysis process to ensure an accurate representation of findings.

### **3.8.2 Transferability**

Transferability is the degree to which the findings of the study can be replicated in other settings (Shenton, 2004). To achieve this, the researcher gave a detailed description of research setting, background of participants and methodology for other researchers to be able to apply them when transferring the study conclusions to other similar setting or cases. Also, for the purposes of audit trail, all transcribed data and field notes were stored in a folder on a computer, email and cabinet. Furthermore, the participants were quoted directly and this was to allow readers of this research to have a better understanding of the context in which the study was conducted. In addition, reflexivity of the study was maintained throughout the current project by making known relevant assumptions, values, interest, and beliefs of the researcher in advance with detailed journal recording that indicated evidence of all the planning and research interactions. Thus, as the main researcher, two related areas motivated my interest in this study. Firstly, my curiosity about subjectivity and how individuals give voice to their experiences following health crises. In addition, my interest in understanding how some individuals receiving doses of chemotherapy are able to develop and maintain resilience, while others find this more difficult provided a second motivation.

### **3.8.3 Dependability**

Dependability is the level at which the research findings are consistent, reliable and could be replicated. This is measured by the standard of which the research is conducted, analyzed and presented. To enable an external researcher to repeat the inquiry and achieve similar results each process in the study should be reported in detail (Gethins, 2012). To achieve dependability, the researcher provides detailed description of research setting, methodology and background of participants who will be used in the study. More so, all participants were interviewed with the same interview guide with each transcript subjected to the same method of arriving at themes and sub themes. All documents used for the research process are kept for audit trail.

### **3.8.4 Confirmability**

Confirmability represents the ability of the researcher to demonstrate that the research findings and interpretations are clearly the reflections of the participants and not the preferences of the researcher (Gethins, 2012; Liamputtong, 2009). To ensure confirmability of the research findings the demographics of the sample were described along with the life experience about which they were interviewed. This allows readers to comprehend who the findings of the research are relevant to. Also, all audio recordings were transcribed by the researcher shortly after the interview. This was done to avoid any difficulties in identifying, interpreting interviews and that the researcher accurately portrayed the meanings participants were attempting to express. To do this, each interview was replayed and checked against the corresponding transcript for accuracy of the findings.

### **3.9 Data Management**

The objective of qualitative data management is to package data in a way as to allow for easy analysis and accessibility (Padgett, 2016). Recording of the date, time and venue of the interview in a field diary was done before data collection. The interviews were recorded under the consents of the participants. Participants were assigned numbers (P1 through P12) in order of recruitment into the study, after which transcript codes were also assigned to each participant. After the transcription, hard copies of each interview, field notes, audio recordings diaries and all other necessary documents and information were kept in lock in a cabinet and on email and folder on the computer for safe keeping and prevention of data loss. Demographic data was separated from transcripts and stored separately. This is to allow the information to be accessible to only the researcher and his supervisors. This will be stored for five (5) years after which it will be destroyed. The transcribed information was duplicated to prevent data loss.

### **3.10 Data Analysis**

Data analysis is the process of searching into data in order to unearth the meaning of the experiences of participants under study (Green & Thorogood, 2018).

Data analysis in this study was done concurrently with data collection. A thematic content analysis approach was used by the researcher for descriptive presentation of data. All interview sessions were audio recorded, transcribed verbatim and thematically analyzed manually. This was after reading each transcription severally for better understanding, similar ideas, thoughts and words that can be labelled as codes were generated. Similar codes were grouped to form sub themes and sub themes grouped into themes. Also, reflexivity was ensured during data analysis by not recording the researcher 's thoughts and ideas rather, only those of the participants were recorded with quotations from participants to support the generated them es.

### **3.11 Ethical Considerations**

The Institutional Review Board at the Noguchi Memorial Institute for Medical Research, University of Ghana offered ethical approval to conduct the study. The purpose, benefits and possible risks of the study were explained to participants both verbally and in the consent sheet. This was done a week before data collection to afford the participants the opportunity to read and make sure they understand the information that had been given them and consider participating in the study or otherwise. Only the participants who met the inclusion criteria and agreed to participate were given a consent form to sign or thumbprint to indicate their consent. Participants were informed that they have the right to withdraw from the study at any point and such withdrawal will not in any way affect their care currently or in the future. Participants were informed that the raw data will be used for only academic purposes and that only the researcher, supervisor and independent coder have access to the raw data.

Anonymity of participants were ensured by assigning numbers such as; P1, R2 and P12 to each participant during the recruitment. These numbers are used when quoting participants in the findings chapter. Privacy of participants was also ensured during the interview. Participants were informed that data and other study documents such as audiorecording, transcripts and consent forms would be kept under lock and key and also stored in computer and email for at least five years after the study. Other identifiable information and sheet containing demographic data were also kept and stored separately from transcripts. Participants were assured that appropriate ethical clearance will be sought if the need arises that the data has to be used in future for any other purpose. Arrangement with a professional counselor, name and contact were provided by the researcher at no cost to participants to care for those who may become emotional during the study.

## **CHAPTER FOUR**

### **FINDINGS/RESULTS**

#### **4.0 Introduction**

This chapter presents findings of the study. This study investigated the experiences of women diagnosed with breast cancer and the factors that influence their resilience during chemotherapy. Field notes taken during data collection were factored into the analysis to provide contextual and deeper understanding of the factors that influence resilience among these cancer patients. The findings were grouped according to the objectives of the study, which are derived from the I-resilience model (Cooper, 1999). The four themes that emerged are presented with their corresponding subthemes as follows: 1. Burdens associated with breast cancer diagnosis and treatment. Its subthemes include physical burden, psychological burden, social burden and financial burden, 2. Personal traits (purposiveness and confidence), and the subthemes are hope, optimism, self-esteem and confidence. 3. Support systems; social support, medical support and financial support formed the third group of the subthemes. 4. Adaptation/Coping strategies, and its subthemes are preparedness, inner strength and rationalisation.

#### **4.1 Demographic Description of Participants/Study Population.**

Twelve women who had breast cancer and had received chemotherapy were involved in the study. These women were aged between 38 and 78 years. Three (3) of the women were in their late thirties, five (5) were in their early forties, two (2) in their late fifties, one (1) in her early sixties, and one (1) in her late seventies. Their educational backgrounds were secondary (2), vocational (4) and tertiary (6). Eight of the women were Christians; three were Muslims and one Traditionalist. The women had been married for a period of between 6 and 47 years and they were women who

had completed their chemotherapy between five (5) months and 4years. At the time of interview, ten of the women were employed formally, one retired nurse and one

works as a business woman. The number of children the women had ranged from 1 to

3.2.1 The language spoken by the participants were English and Twi. All the

respondents resided in urban settlements within the Accra Metropolis.

Table 4.1: Themes and subthemes from data.

THEMES	SUBTHEMES
1. Burden associated with breast cancer diagnosis and treatment	<ul style="list-style-type: none"> <li>• Physical burden</li> <li>• Social burden</li> <li>• Financial burden</li> <li>• Psychological burden</li> </ul>
2. Personal traits (purposive and confidence)	<ul style="list-style-type: none"> <li>• Hope</li> <li>• Optimism</li> <li>• Self-care</li> <li>• Confidence</li> </ul>
3. Support systems	<ul style="list-style-type: none"> <li>• Social support</li> <li>• Medical support</li> <li>• Financial support</li> </ul>
4. Adaptation/coping	<ul style="list-style-type: none"> <li>• Preparedness</li> <li>• Inner strength</li> <li>• Rationalisation</li> </ul>

## 4.2 The Burden Associated with Breast Cancer Diagnosis and Treatment

To set the stage for the conversation between me and the participants at the beginning of the data collection, all participants were asked to share their experiences following breast cancer treatment. The major theme that emerged from participants sharing their experiences was, the burden associated with breast cancer diagnosis and treatment. The subthemes were; physical burden, psychological burden, social burden and financial burden.

### 4.2.1 Physical burden

All of the breast cancer survivors narrated that they encountered many physical changes in their bodies. They reported that these changes impacted negatively on their daily activities. The physical changes reported in this study include fatigue, vomiting, loss of taste, common cold and loss of hair. Other changes reported include altered sexual functions, skin discolouration and memory loss.

According to the participants, they frequently experienced fatigue, which could not enable them to stand for a long duration.

*“I was frequently fatigued and become weak, I couldn’t stand for long” P7*

*–Just trying to recover all the time is tiring and it’s ongoing. Physically you put your body through hell. Some problems come and go, but others such as extreme tiredness linger on for months” P12.*

*“...I lost all my strength, I was feeling exhausted and tired each time I took the chemo, the drug is too powerful, it changed my whole system (hmmmm)” P3*

The participants also discussed many other physical changes such as vomiting.

*“You also feel like vomiting. At that time the anti-nausea medication was rubbish so I spent my time with my head in the toilet” P12*

Many other participants also indicated that, although some of the physical impact from chemotherapy was not serious it was annoying. For example, they experienced loss of taste and common cold.

*“Like many others, it took ages to gain back my taste for food. Anything I put in my mouth was tasteless and that was annoying”, P12.*

*“...all my taste buds were gone, I became like a child but that wasn't a serious problem just that it's annoying. You can't enjoy anything, I mean” P1.*

*“I also seem to get complications from cold very easily which can take longer to recover from, p5.*

Many other participants expressed worries about the loss of hair. They revealed that their hair gets removed each time they combed it. Some reported that the situation was serious to the extent that they could find lots of hairs on their bed upon waking up from sleep.

*“...when you take a comb to comb your hair, then your hair will start removing...let me say about two weeks after chemo.... if you comb it or you don't comb it, if you wake up from sleep you will see your hair on the bed” P7.*

*“I lost almost all my hair” P2,*

Due to chemotherapy, participants reported some changes in their sexual and reproductive functions.

*“And my sexual function was totally gone.... In fact, there have been some major changes like that during my chemo, I tell you. After my chemo I couldn't get pregnant again” P4*

*“My (vagina) became dry about a month after my chemo which wasn't usual and when I told the doctor he said it's the side effect of the chemotherapy” P1*

Some participants also revealed having darkened faces, palm, feet and skin which affected them negatively.

*“My face, hands and palm colour changed completely, you needed to see it. It became dark, completely dark (clinch fist and eyes)”, P3.*

*“When I started chemo, I didn't know that was how my body was going to respond. My nails, palm, skin and face became dark... (eeii!! exclaimed) so I had to fix nails always. This cancer thing was too much; every body part kept changing”, P8.*

*“...My palm and foot became dark after my chemo and I didn't understand why it was changing so. I lost eyelashes and probably three quarters of my skin colour”, P11.*

#### **4.2.2 Social burden**

In this study, several participants reported that their breast cancer and the chemotherapy adversely impacted heavily on their social lives. Some indicated that they withdrew from social activities and functions because they did not want to worry others with their health issues. Other participants revealed that they could not enjoy their holidays as they used to because of changes in their body.

*“I am one type of person who keeps a lot to myself, and I mostly do this because I don't want to worry others with my personal issues, and this was exactly what I did, just keeping it to myself”. P7*

*“I like fun but during chemo, every part of my system was affected by the drug and it took me time to be able to recover. Due to the changes in my health I couldn't make good use of my holidays. I was always indoors till my body started picking up”, P6.*

Many participants experienced the social impact on their families. They said that by way of protecting their parents who were advanced in age, they avoided the disclosure of their ailment,

*–It was never easy telling my parents. They were advanced in age and I wasn't staying with them too. I had to find ways and means to protect them. So, I didn't tell them I was diagnosed with cancer because that information alone will have killed them”, P12.*

*“.... I never told them (parents) I had cancer”, P1.*

Many other participants had to avoid their peers and social gatherings to avoid questions that people may ask them regarding their altered bodies resulting from chemotherapy.

*“You know what? I became a home person, I avoid friends and gathering. Anytime someone bumps into you the next thing they say is like, you have change what happened? What is wrong? And stuff like that”. P7*

*“I remember attending a friend's sister's wedding and met a former school mate who walked to me and asked, eei (name mentioned xxx) why are you in scurf let me see and pulled it off my head, come and see...that was the last time I attended a public event it was so humiliating”. P9*

Similarly, some participants could not attend church services because of shyness due to changes in body image.

*“During the time I was on chemo, I could not go for church programs, I was shy because of the changes on my body, my hands, face...hair and almost everything about me has changed and you know how people talk and ask unnecessary questions. So, to avoid all that I became self-isolated”, P1.*

Similarly, one participant avoided programs not because of the negative comments and questions from peers but rather due to the perceived mockery from friends and peers

*“Can you imagine, it's just difficult when people see you as looking great and well but within you; you're pissed and feel like screaming out. That was what happened to me so I stopped going for programs because I don't know if they were teasing me with those comments”, P2.*

Others expressed that it was difficult for them to see their children. They felt isolated from their kids, because children were not allowed to visit them due to the toxic nature of the drugs. Others distance themselves from their kids due to self-worry emanating from unanswered questions.

*“I had so many difficult times but to me, the most difficult time was when I was not able to see my son, at the time. No child was allowed to visit the chemo room because of the infection risk.”, P1.*

*“My first worry was, how am I going to tell my kids? Am I going to die? How am I going to die? And when am I going to die? So, it kept me at a distance from my children because I didn't want to scare them”, P4.*

#### **4.2.3 Financial burden**

Financial changes emerged as one of the burdens of breast cancer treatment.

Participants revealed that the added financial strain they experienced contributed to their debilitating cancer condition and chemotherapy effects. Participants indicated that their financial situation deteriorated because they were unable to work full time.

Others narrated how delays at the hospital affected them financially because they have to spend working hours in waiting at the hospital.

*"...additionally, you have to endure financial strain since you can't work fulltime", P2.*

*"Nothing worried me so much than the time we wasted at the hospital and due to that, you suffer financial strain because you are unable to work fulltime. More of our times was spent waiting", P6.*

*"Financially, I lost a lot. Can you imagine, I regularly sat waiting for hours for my term at the clinic for appointment? but due to the delays i end up spending my whole time looking at other patients as if I was watching video", P7.*

Similarly, other participants suffered financially because they could not get the full amount of money to purchase drugs, while some had to rely on loans to pay their treatment bills.

*"There was this day I needed just GH¢50 to add to my money to enable me buy drugs but there was none", p11.*

*"I went for a loan for this my treatment else how will I have got the money to pay for the drugs. Even though I have recovered, I am still paying the loan.", P2.*

*"It wasn't easy at all for me. Everything I had, vanished within months and it got to a time, even how to get money for treatment became a problem" P6,*

Some participants also revealed that on many occasions, they cancelled chemo appointment due to lack of money for transport.

*"There is a stage in life when everything seems to be tearing apart, to the extent that I could not even pay for my transport and had to postpone my chemo (long pause). For me which was the hardest part of all my chemo experience; no money for transport I mean, no money" P7*

*"I stay far away (Name of town mentioned) and I come always to Korle-Bu for treatment and it wasn't easy. There was a day I had to postpone my treatment schedule and (xxxx) was calling me and asking (xxxxx); are you not coming for treatment, your day is so, so, and so. But because I didn't have the money to take transport I couldn't go", P8.*

During cancer journey some participants lost their life-time savings and properties to cancer treatment and that affected them financially.

*“People say money is nothing but I can tell you, when you are suffering from cancer money is something. I had used all my live saving for my cancer care to the extent that I had to post-poned some of my lab requests and even scheduled dates because there was no money for transportation”, P12.*

Due to unavailability of some essential cancer medications in the Ghanaian market, it made cancer treatment expensive for some participants.

*“... I had drug reaction and so was vomiting profusely and bleeding per vagina and nose. My skin also started changing and the doctor said I was reacting to the chemo. So, he prescribed drugs for me but we roamed the whole of Accra we couldn't get it. My husband ended up going to South Africa to buy it. The plane ticket, the money for the drug and all that really cost me” P6*

Some participants revealed that apart from the high cost of medications, they also spent money on other essential accessories like wigs for adequate grooming.

*“My nails were all dead, my hair gone, so what do I do? I have to be buying wigs and doing manicure to cover my hair and nails. All this demands money and if not, the cancer I wouldn't have been doing that regularly. I had to look for extra money for that”, P10.*

*“I for one have to buy wigs always in order to keep my head covered with something because I lost all my hair and that comes with a cost”, P5.*

Another participant narrated that she was demoted at work because for almost a year she could not go to work. Consequently, her salary was not enough to meet her financial demands.

*“It all started like a joke but as each day passed by then I realised how I was losing financially. I got demoted from work, my salary was slashed and my cancer needs increased (tears draping from eyes). Thank God we are here today, my son”, P4.*

#### 4.2.4 Psychological

Psychologically, most of the breast cancer survivors in this study were impacted by feelings of uncertainty. In general, their uncertainty was associated with the fear of recurrence of their illness and knowing that, for many, treatment offered no guarantees of absolute cure of their conditions. This fear was evident in all of the participants interviewed.

*“...you know!! I’m a nurse but I stop thinking like a professional and just became a scared patient because I was not certain initially”, p3.*

*“Psychologically, you struggle with the fear of reoccurrence of the cancer or dying from cancer and overcoming the hurdles that come with chemotherapy”, P4.*

*“The hardest part for me was not knowing the future: will the cancer reoccur...what’s next.... And what’s it going to involve, and more importantly will I die?”, P7.*

Many other participants became scared of any health-related symptoms like boil or swellings on their bodies thinking they could be another cancer and this feeling was experienced throughout their cancer journey.

*“Anytime you get sick, even just a boil or swelling on your skin you became frightened and your mind goes like, oh God, it’s another lump.”, P4.*

*“...Each time I had even a small swelling on my chest or breast I became scared even if it’s an aunt bite. My mind was occupied with this kind of thinking”, p12.*

Many participants also narrated how they were anxious about the effect of chemotherapy. For them, unlike surgery where the body part will just be cut off, chemotherapy is going to be running through their bodies.

*“What’s particularly difficult about breast cancer is that, it’s scary, to know that the medication is going to be running through your body and it’s not like surgery which they can just remove. I have previously had a mass removed from my back, but the fear is*

*different even when I did not know the result, it was much easier to cope than now”, p1.*

*“...having chemo running through my blood all the time made me more anxious than the breast cancer itself. Because we were told the drug will kill all the cancer cells including other cells in our body that was growing fast like that of cancer cells so I was worried because if it was surgery it will not be like that”, P5.*

*“It’s not like I can go and have an operation and have it chopped out. That may be easier because I could visualise in my mind the cancer has been removed. But with chemo, whether it’s killing you or the cancer you can’t tell and that is worrying” P9.*

Upon hearing of cancer diagnosis, one participant narrated she got depressed and that continued until her second dose of chemotherapy.

*“First of all, I was shocked and depressed starting from the day I was told I had breast cancer up to my second dose of chemotherapy, that is when I started seeing some prospect in my treatment”, P5.*

Some other participants became sad and thought nothing good was going to come out from the treatment hence they contemplated committing suicide.

*“You don’t know what it meant at the time...I can’t forget these experiences...I became sad, and felt all was lost because of the negative experiences I had (shaking of head) ... to the extent that I considered committing suicide” P7*

*“...after I started experiencing difficulty in memorizing and recollecting past events.... I became so so sad...I asked, so is this man?”, p12.*

*“I can’t remember why but I was very sad...the problems became many such that I thought if am gone (die) it will be better for me P10”*

Other participants suffered from depression following chemotherapy. This was as a result of the side effects of the medications, which according to the participants were unbearable and traumatizing

*“... (Long paused) most of the times I got depressed, there was some much life changing event that (hmmmm) offered little hope at the beginning of treatment” P12*

*“The side effects of the chemo became unbearable; in fact, I was so traumatized by the chemo’s adverse effects. At a point I became discouraged of life and felt nothing good will come from me treatment”, P8.*

Some participants experienced a near death feeling. These feelings were related to mental stress and severe emotional expressions which required hospital admission

*“I can’t forget this day when I turned to my husband and said to him I just felt like dying.... that is after I was rushed back to the hospital for several days and I was really in agony...and this was after my first dose of chemo and my whole system changed”, P11.*

*“I went through a whole lot of mental stress, thinking and experiencing extreme mental agony such that I couldn’t stay at home. I was admitted for monitoring”, P10.*

#### **4.3 The Personal Traits that Influence Resilience in Women who Completed Chemotherapy for Breast Cancer.**

To answer the research question, what are the personal traits that influence resilience among breast cancer women who received chemotherapy, four (4) sub-themes were emerged from the data and these are: hope, optimism, self-esteem, and confidence. Participants expressed their views that they survived breast cancer because of the hope they had in health care professionals such as nurses and doctors, hope in God and personal conviction. Participants also revealed that optimism was the reason for their recovery. They demonstrated this in the form of the certainty they had in themselves and those caring for them. Others narrated having a positive mind and drawing on past experience which assisted them in their recovery. Participants also reported focusing on expectation during adversity and that enabled them to survive their breast cancer. Other participants revealed that their self-esteem through self-

encouragement with new goals and strong feelings assisted them during their treatment journey. A few others saw breast cancer as a specific problem hence did not look down upon themselves.

Some participants indicated that trusting in God and having confidence in the health care team enable them to survive, while others narrated that confidence in themselves and care givers to prescribe the appropriate treatment helped in their recovery.

#### **4.3.1 Hope.**

The participants expressed hope and expectations in the health care staff, particularly the doctors and nurses who care for patients during chemotherapy. They expressed expectations that the doctors and nurses will help them to recover because they cared for them.

*“I put my trust in the doctors because I wanted recovery and they were those to care for me and so they became my only hope”, p1.*

*“...so, when I came to the hospital and then the treatment started, I trusted and also had expectation that the health care team were going to help me through, especially the doctors and nurses”, p12.*

Some participants narrated the account of other people ‘s experiences with nurses, which influenced their perceptions and expectations. This, according to the participant got them scared of chemotherapy and what they were likely to encounter during their chemotherapy. However, they reported that their experiences with nurses on the first day at the hospital were different from what they perceived, thus, the warm receptions from the staff gave them hope. Most of the participants reported that the repeated kind of treatments from

nurses and doctors gave them hope to endure the pains and adverse reactions during the phase of chemotherapy.

*“People’s accounts of their experience with nurses often scared me, so when I was told I had breast cancer and I had to go for chemo (long laugh), my worries became twice of the breast cancer, because of what I am expected to receive from nurses. However, my experience with the first nurse on my first day gave me hope and this expectation kept repeating itself till I finished my treatment”, P10.*

*“.... formerly I perceived nurses as unintelligent workers who don’t care about patients but my chemo provided me with an opportunity to really know them. They offered me hope throughout my days during hospitalization. I can say from day one at the OPD what the nurse there counselled me on gave me hope”, P2.*

Some also narrated that their hope was due to the greater assurance they obtained from good interpersonal relationship they got from nurses.

*“For me, I was hopeful and this was placed within the context of finding meaning in my suffering, the pain and sadness I experienced every day during my chemo was too much but I didn’t give-up. I knew I was going to get hope due to the good relationship the nurses were offering to us, that was quiet assuring”. P4*

However, majority of the participants also placed their hope in themselves for recovery, as they believed that they are winners and can persevere throughout the treatment. Others said that they took the treatment easy by not worrying too much.

*–...so, all days I kept hoping for the best. I didn’t look down upon myself no, no way. I kept telling myself you are a conqueror; you are more than a conqueror”, P2.*

*“I am one person who hardly quit. I persevere. Within me is full of hope”, P8.*

*“I took it easy and I have to, because all I have at that time was hope. Personally, I take everything in my life easy although I was anxious initially, I later told myself that if I am worried I can’t change anything and so, I have to just hope for the better.”, P6.*

Other participants placed their hopes in breast cancer survivors who reassured them and wished them a speedy recovery. The personal testimonies of the survivors were sources of hope, which took away participants fears.

*“There was this organisation called Breast Cancer Survivors Association, whose members came to give me and my family hope by offering us more information about breast cancer and how I can contribute to my survival, after all, they were living testimonies for us”, P5.*

*“...so, I was not afraid, after all some patient had recovered from same condition and others from similar diagnosis and they were all there to offer us any information we wanted. That gave many of us hope because here are people who suffered what I am suffering and if they recovered from it that is assuring”. p12.*

Other participants were hopeful that God will see them through their chemotherapy. They believed and trusted in the blood of Jesus.

*–There were instances when I used to sing this song, “my hope is built on nothing less than Jesus blood and righteousness” (long laugh) oh yeah and you feel God’s presence around you. So, I was hopeful God will do something” P12*

*“.... Hope is belief and beliefs are found in God. So, all I needed at that time was hope in God so that even if i die as they say it can lead to, i will go to heaven and that if I live I live for Him. So, my hope was only on Christ and Christ alone (laughter)”, P8.*

#### **4.3.2 Optimism**

Some of the participants indicated that they looked at the positive side of their conditions. They reported that by focusing on what they could do to keep healthy rather than on the negative circumstances of life.

*–I was inclined to look on the more positive side of my condition and to expect the greatest result from treatment since many women who came to the hospital had recovered, so I tuned my mind that surely I can recover”. P8*

*“.... believing in myself with much focus enables me to look more on what I could do to help myself. So, I kept saying I can overcome”. P7*

Other participants expressed the views that they were mentally convinced that they were going to get well. They said that in order not to get bad advice from people they tried as much not to let their church members know about their conditions. Few others revealed how they avoided people because of misconceptions about breast cancer.

*“...In fact, I was stable in mind that am going to get well. I tried as much not to let my church people know about it except my pastor and even at my work place only my brother-in-law knew about it because I trusted him. People gossip a lot and some of them don't even think cancer can be cured and I never wanted any bad advice so I kept it to myself because I believed I was going to be healed”, P10.*

*“.... you know the misconceptions of Ghanaians about cancer. Most of them believed it is gotten through fornication and adultery, and others it is a curse and all that, but, with my background as a health worker I was quite certain about the future that I will be well after all, we have discharged many with complete recovery from breast cancer”, p5.*

Some other participants were of the view that to recover from a condition like cancer they needed to be optimistic. This is because chemotherapy has many side effects and if you are not optimistic, you may discontinue the treatment.

*“...you know!! a condition like cancer, if you are not a person with confidence you will run away from the chemo, the drugs are many and come with a lot of side effects and for me to think I can take all this medications and get well, then I needed to be optimistic and that is what I did, I was very expectant and that helped” P12*

### **4.3.3 Self-esteem**

Cognitively, participant expressed how self-esteem influenced their survival from breast cancer and chemotherapy effects. Participants indicated that their ability to even switch on their phones was enough motivation for them. They revealed there was a strong inner voice encouraging them to keep going

*“To the extent that I find it's helpful to spend time to switch on my phone and take a selfie and forward it to my loved ones like before was enough for me, actually I had a strong feeling that I am fine and anything from someone to me is the person's opinion”,P3.*

*“I’m a person with deep feelings; I could hear an inner voice saying to me, this is nothing, God will help you out. It is that voice that kept encouraging me, so I had a positive feeling that I will get well, yeah”*  
*p12*

It was revealed that the unsuccessful outcome of chemotherapy for some breast cancer patients did not impact on the self-esteem of participants in this study. Similarly, others never bordered to compare themselves to those who could not successfully recover from breast cancer. According to these participants, they set new goals and tune their minds on happy moments in order to overcome the effects of the chemotherapy and the disease burden.

*“Hmmm, I did so many things to help me, like .... I never compare myself to any one.... I mean those who couldn’t make it through treatment, no. I know people died from breast cancer so I set new goals and thought for myself with the feeling, I am born to win. I tell you with that opinion I could move mountains”, p2.*

*“You see many people focus on the problem and cry and complain meanwhile those you complain to can’t help you out. As for me, the secret has been that this breast cancer is just one of many problems in life so just this specific situation can’t stop me from going on with life, so I set new goals for meself”, P1.*

#### **4.3.4 Confidence**

Confidence is another positive factor that influenced resilience among women with breast cancer who received chemotherapy. Participants revealed that they were self-reliant, confident and able to manage their symptoms. However, there were instances they involved significant others who share in their positive beliefs about chemotherapy and the possibilities for getting cure for breast cancer.

*“I hardly rely on someone, except to see you are confident in whatever you are doing”, P9.*

*“I always want to notice one who has the will power to suggest things on their own first with confidence before I will rely on you for anything, because I always feel it’s possible to overcome breast cancer difficulties but with someone I will not doubt their prescriptions and treatments”, P12.*

Similarly, others participants expressed confidence in themselves and that contributed to their recovery. They said that self-confidence is needed to manage the effect of chemotherapy treatment.

*“I needed confidence my-self, because to take chemo for a whole year (long laugh) my son, you need confidence, yes, else you can’t finish the chemo, you will stop because of its effects”, P3.*

*“...to take chemo for almost one year it’s very important to be confident else I couldn’t have been able to finish my treatment. When you are not confident you will say is ok I won’t take the treatment again because the side effects are a lot”, P5.*

*Confidence is what got me here. I needed confidence to enable me stay and complete my treatment. When you are on chemo, and you are not confident in yourself you can’t stay to complete the chemo the side effects are just too many”, P7.*

Others expressed the opinion that they survived due to the confidence they had in doctors and nurses during the chemotherapy. They were of the conviction that the competence of the health team will help them, most importantly after their first chemotherapy dose.

*“I was of the conviction that I needed confidence from the health care team to be able to stay through after receiving my first dose of chemo. My whole system changed and I could feel am no more the same and at this point all I need was to be sure the nurses and doctors knew what they were about”, p12.*

*“...So, all I needed was to see them (nurses and doctors) confident in their procedures to assure me I will be fine because of the drug’s effects I was experiencing; and when I saw the confidence level the nurses showed (xxxx name mentioned) to me during my chemo I became ok throughout in my mind and that helped” P1*

#### **4.4 Support Systems that Influence Resilience in Women who Completed Chemotherapy for Breast Cancer**

To answer the research question, what are the support systems that influence resilience among breast cancer survivors, three sub-themes emerged; these were; (1) social support, (2) financial support and (3) medical support

##### **4.4.1 Social support**

After the analysis of data, the social support that women with breast cancer who received chemotherapy got to enable them survived was categorized into three and they were; peer support, family support and religious support and they are discussed below.

###### ***4.4.1.1 Peer support***

Majority of the participants survived breast cancer because of the support they received from peer breast cancer survivors. They revealed that it was important to meet a breast cancer survivor, as such people understand and relate more to what they were going through. The presence of breast cancer survivors served as a motivation for them.

*-It was also very important for me to meet someone with the same cancer because they could relate more to what I was going through. I've had extremely intensive treatment...I've nearly died two times so I felt it was important to meet a survivor who could talk to me about cancer and they did", P9.*

*"I can say it was imperative for me to meet someone with the same condition because they have the capacity to bear more with what I was experiencing. My treatment was escalating and at this time I felt it was imperative to meet a survivor whom I could converse with on how they managed to survive", P2.*

*"...I must state, it was fundamental for me to meet a person who had recovered from cancer since they will have the ability to relate more to what I was encountering. My treatment was rising and at the time I felt it was necessary to meet a survivor to help me figured out how to survive", P8.*

#### **4.4.1.2 Family and friends support**

Some participants also narrated that they survived because of the quality of support they received from their nuclear families.

*. "I could feel within me I was getting weaker as each day passes by with the chemo effect and financial burden but all around me was not helping. I had people come and go but none was meeting me immediate personal hygiene and financial needs... but everything started changing for good when my son landed from U.S.A he is my everything, it is not like people were not around me but you know!!!, he is special (LAUGH hahahaha)", P2.*

*"I had many visitors trooping in and out to say hello and wish me well but none was able to do for me as my daughter did (LONG PAUSE). She will come wash my things, clean the room and assist me to do many other things I couldn't do for myself because of the cancer and this was really good", P9.*

Other participants also believed that their survival was largely due to the huge number of family and friends who supported them. They reported that during hospitalization, such close friends visited them, which they valued.

*"The presence of my family and friends was enough for me. They will always make sure I was ok. They showered me love and a lot of support when I needed them", P8.*

*"I had friends who always sent me motivational messages through WhatsApp. It worked for me; I mean it helped me whenever I was sad and thinking". P82.*

The data also revealed that some participants drive for survival was based on their perceived sense of support.

*"...just perceiving that I am secured by my family and friend and that even if I am gone (die) my children are safe under their care was enough to get me going", P12.*

#### **4.4.1.3 Religious support**

Participants received supports from churches. The support was in a form of money, material and encouragement. These participants indicated that the support they received forms part of their churches duty of supporting the sick and destitute in the society.

*“Even though I didn’t appeal for help from my church to support me, but they came....and when they came, they gave me Gh 1000 cedis”*

*P5.*

*“....so many people assisted me including my church. They brought me money, soap and toiletries”* *11.*

*“.... The women ministry leading will always make time to come around and encourage me.... she is a mother. Sometimes she will come and say take this Gh 100 cedis for taxi and all that did help”* *7*

#### **4.4.2 Medical support**

Almost all the participants reported that the medical staff has been helpful to them. The participants’ expressions of medical support were categorized into four, which are; Empathy, follow-up, therapeutic drug administration and health education.

##### **4.4.2.1 Empathy**

Many participants explained that Nurses and Doctors supported them during chemotherapy with empathy and respect.

*“One thing that really helped me and I think for many others too was the way the nurses felt and talk to us, very cordial and with respect”* *P2*

*“I am always of the view that nurses are rude yeah that sort of thinking, but my cancer experience with them (nurses) was different; the nurses and doctors established a respectable trust and empathy and that was helpful true true”* *P3*

*“I always wanted them (nurses) to think and feel like we do so that they can care for us and they did exactly that”* *P12*

#### **4.4.2.2 Follow-up**

Many participants equally believed their recovery was facilitated by the follow-up 's the health staff carried during their chemotherapy. They indicated that in most instances the nurses will call to remind them of their review dates.

*“There are nurses who come and greet you and find out if you have any concern. They make you feel special and all that did help me”*  
*P4*

*“There is this guy (xxxx) he will call you to remind you of your review date... He will keep in constant communication with you to make sure you are fine”* *p7.*

*“For me how you talk to me matters and so when I was coming for the treatment I was already frustrated but the tone and the language used to explain things for us were excellent and this has helped me a lot. I didn't shy or fear in asking any question and they too will be very kind to the extent that they can use their credit to call and remind us of our review dates”* *P5*

Some participants also revealed how some nurses always placed follow-up calls on them to check if they are experiencing any adverse drug reaction.

*“...and most times (xxxxx name mentioned) will also ask you to findout for any drug reaction”* *P4.*

*“They also call us on phone when we are gone home to check if we have reach home safely and also check if we are having any drug reaction”* *P7*

#### **4.4.2.3 Drug administration.**

Many participants expressed that the health staff especially the nurses prepared their mind by engaging them in a conversation before and during treatment.

*“...as for (xxxxxx) nurses they consistently interact with us to prepare our minds before given us the chemo and even when given chemo they still interact with us and some of them crack jokes to keep us going”*  
*P1*

*“They take their time to when given you treatment. They give you a chair to sit and they too do sit so they don’t rush and is good that way”* *P3*

*“...the nurses do give us infusion and it’s very easy for them when they are to insert a cannular. They don’t prick our skin too much”.* *P5*

Similarly, participants reported that the health staff adhered to drug administration principle during their chemotherapy as they look out for the right patients to administer the right drug.

*“There is this nurse (xxxxx) whenever he is on duty he will come with your drugs and book and mention your name and cross check on the book to see if you are the one to take that medicine before he will give you. Even when we are in hurry he will always calm us down till he finishes what he is doing”* *P12*

#### **4.4.2.4 Information provision and health education**

Other participants revealed that the health staff particularly the nurses provided them with adequate health education on the causes, signs and symptoms and adverse effects of the chemotherapy

*“They (nurses) always have a session for health education where they tell un a lot about the side effects of the chemo and how to manage them should they occur outside the hospital. This really helped because, the way my body was changing due to the chemo, If I didn’t hear of it like I will confused and that will have affected me seriously”*  
*P9*

*“The nurses here are good. They always provided us with information on the side effect of any new medications during administration and they have never given me a wrong drug throughout my chemo”* *P7*

*“... I learnt so many things from the nurse’s especially (xxxxx). He taught us about the causes, signs and symptoms, how to do breast examination and breast screening and the adverse effects of the drugs”* *p12*

#### 4.4.3 Financial support

Financial support was identified as a key factor to survivors of BC.

Participants expressed seven sources of financial support that enable them to successfully complete their chemotherapy. These were; spousal support, self-financing/NHIS, loans and appeal from telecommunication media companies, churches, breast cancer survivors and companies.

According to some of the participants in this study, they self-finance their medical bills because they were using National Health Insurance Scheme (NHIS) to seek treatment and the drugs that were not covered by the NHIS were paid for by themselves.

*“Thank God I did some savings those days else it will have been hell (difficult) for me” P5*

*“I was using NHIS for treatments and instances where the treatment is not covered by the NHIS I paid it myself” P9*

Some participants revealed that their partners were supportive financially during chemotherapy. They indicated that they needed to live for their husbands because of the support they got. They added that aside their medical bills, their husbands also provided resources essential for their grooming during the treatment and recovery phase.

*“My husband was very, very supportive. He really showed he is a man during my treatment. He paid for all my chemo. Things I originally buy myself including my hair do and panties but because of the disease I couldn't, this angel of my life was now buying all that for me. And I said to myself I must live for him. I can't die and leave this man. So financially he did everything as a man can do and that helped me to live till today yes” P4*

*“...I love (mentioned name of husband). He supported me fully during my chemo. Paid for my chemo, taxi, everything (long lough)” P10*

Some participants went for loans to assist them to pay for their medical bills

*“I went for a loan in other to support myself. Had it not been because of that money I would have died. Thank God now I am alive” P2*

*“I had to rely on some soft loan to support myself” P3*

One participant went for appeals from telecommunication media companies to seek for financial supports.

*“...I ended up sending it to TV3 for help, they made public appeal and people donated for my treatment. They brought me GH¢ 120,000 and that was what helped me survive” P10*

Similarly, some participants got assistance from churches to enable them pay for their medical bills

*“I got support from my church. They did harvest and brought GH¢ 4000 and that was my relieved” P1.*

*“...thanks to the women ministry group in my church; they assisted me with GH¢ 5000 to pay for my chemo” p124*

One participant also indicated she received financial and material support from the breast cancer survivors' group. She recounted that although this source of financial support was very little, it was significant in recovery process.

*“I remember during treatment some group of people (breast cancer survivors' group) came to give us product books and money. Even though it was small it really helped” P11*

One participant narrated that a sound financial policy in her company helped her to survive without much effort

*“I was very lucky because of where I work. We workers of (textile/xxxxx) companies have our medical bills footed by the*

*company. So, what I just did was to notify them. If not, the company where will I have gotten the money from? That really helped me and I can say it contributed about 90% to my recovery because you need money for everything” P7*

#### **4.5. Adaptation/Coping Strategies that Influenced Resilience among Women with Breast Cancer who Received Chemotherapy**

This section presents themes regarding the coping and adaptation strategies that influence BC survival. Three subthemes emerged under this section, thus, preparedness, inner strength and rationalisation

##### **4.5.1 Preparedness**

The coping strategies expressed by interviewees ranged from adapting to their illness using personal past tragic lessons such as death, to family horrible situational experiences in war as a form of motivation to cope during their chemotherapy.

*“I lost both my parents tragically in separate circumstances. One as an adolescent and another in my mid-20s. I certainly imagine how that experience has set me up for adapting to this disease condition. This has a lot to do with how well I've managed so far” P4*

*“Around 4 years before my diagnosis our family experienced an extremely horrible situation. It wasn't well-being related however it was exceptionally difficult and public. Despite the fact that it was an altogether different situation i use it as a motivation to tell myself, you know what, you've been through this previously so you can go through this again”. P8*

*–During my childhood there was so much conflict that my parent lost a lot of their possessions that made us poor and we often fell sick. We had no money, no food and no fresh water, and we needed to survive, so we learnt how to adjust to hardship and adversities and all this helped me learn how to cope during my chemo because that was also very difficult.” P12:*

Another participant indicated that ill health on her personal life prepared her for any future eventualities.

*“I suffered so many illnesses in life. I nearly died from typhoid some time ago. Because of the typhoid I was admitted for several weeks. All*

*this accounted for my coping because I learnt a lot from that typhoid”,  
P2*

Other natural physiological process in life such as menstrual pain assisted some participants to learn how to adjust to adversities. Because the chemotherapy effects such as pain and vomiting were the same sign and symptom they got during their monthly menses.

*“When my menses come, the pain I go through is not easy especially the first 2 days, I will vomit, go to toilet several times. As for the abdominal pain don’t go there. So, when I started chemo the side effects became normal to me because they were not different from that of the menstrual pains I gets every month. So, I can say the menstrual pain was a blessing in disguise because it has taught me how to adjust and that was what helped me during my chemo” P1*

One other participant believes she is naturally good at coping to unfamiliar circumstances

*“As for me I believe I am different, naturally I cope quickly with unfamiliar environments and situations” P5*

Some other participants expressed how social support assisted them to cope during breast cancer treatment.

*“For me, just knowing that I am valued by others assisted me mentally to forget about the impact of my chemo”, P4.*

*“When I got to know I was that valued by others, psychological I became ok. People showed they care about me and that helped drive away all the negative thoughts of my life, P9*

#### **4.5.2 Inner strength**

Many participants expressed how their inner strength assisted them to cope during chemotherapy. They revealed that they survived breast cancer due to their inner soul perseverance.

*“I got here today (survived) due to my inner soul perseverance. The little energy I had was not allowed to be depleted by negative thought and feeling, no way” P7*

*“I told myself keep going, you can make it. So, I put the rest of my energy into the way forward rather than being worried” P1*

*–It is not easy at all, when times were rough, ultimately it was a strong inner core that got me through the worst times” P11*

Similarly, some participants adapted diversional therapy by refocusing their minds on things they could that can keep their minds attentions away from the negative chemotherapy experience.

*“For me, during the twist and turns of life due to chemo I refocus on what I could do that can help divert my attention from the bad experiences I was having” P3*

*“...I simple redirected my focus on new things that was important to me like my building. This help me to cope because things were going (hmmmmm) through my mind and that was not good” P11*

*“I concentrated on new things that swept my attention from the pain and depression I was experiencing” P10*

Many other participants believed they had the necessary reserved resource and stamina to maintain their inner strength during their chemotherapy which subsequently enables them to cope.

*“I had the necessary reserved resources and the mental skills at the time to confront any difficulties of all kind” P12*

*“I think my greatest coping skill was the reserved stamina I had because I never contemplated quitting treatment” P1*

One participant also felt it was important to live and witness the many joys that come with life

*Within me I just wanted to survive so much, in order to continue to be there and witness the many joys that come with life p5*

Other participants narrated that even though they had lost their hair, because of their inner strength, they adapted new ways of life such as wearing wigs.

*“I was always on wig” P2.*

*“hahahaha, if there is anything else that help me I will say it’s was my wig. I wore it each time I was going out” P12*

#### **4.5.3 Rationalization**

Many of the participants said that they attempted to rationalize their condition from a religious perspective.

*–Who created the sun, moon and the sky? You remember what came upon job. So, do you think I was responsible for my cancer? No, it was God of course. So, I said if He healed Job He can heal me too. And I sought spiritual help and you know He never fails. He listened to my prayers and healed me. He brought me this far, yes” P7.*

*“I disclosed to you before that my circumstance is the doing of God. I don’t have any power. God tests every one of us at His own appointed time...It is God so i was patient with Him for everything to be alright and He actually did so”. P8*

*“Oh, like I said earlier upon a careful thought I concluded this situation is the doing of God. And because I have been praying that made Him see me as a faithful servant to merit His Grace and now I am well” P9.*

Some participants rationalized their conditions from a scientific perspective by saying disease is a normal occurrence of nature.

*“Neither me nor my family attributed my ill health to any witchcraft or something like that. We saw it as a normal natural disease occurrence” p7*

*“Disease do occur so this is just one of them” p3.*

Other participants said that they considered it as part of the nuances of life.

*“This is a disease condition that affects even presidents and pastors, and these are the supposed most powerful people in the world yet cancer do get them too. So, I took it as a normal disease that can be cured” p12*

*“...this is just one of the up and downs of life and I believed I will get well” P8*

#### **4.6 Summary of Chapter Four**

In summary, the findings of the study revealed the various factors that influenced resilience among women with breast cancer who received chemotherapy and other burdens associated with breast cancer treatment in Accra metropolis. Four themes and 14 subthemes emerged from the data and these themes and subthemes revealed the experiences of BC survivors regarding their positive outcomes. These experiences were grouped as themes and subthemes. The major themes and subthemes identified in this study are; Personality traits: hope, optimism, self-esteem and confidence; support system: social support, spiritual support, and financial support; adaptation/coping: inner strength, preparedness, rationalisation and burden associated with BC treatment as physical burden, social burden, and financial burden. Many respondents expressed hope in the health care team who assisted them in their recovery while others narrated how self-encouragement with strong inner strength got them through the cancer journey.

Similarly, some participants reported receiving support from family, friends and church members and that assisted them in their recovery. Also, other participants reported how their reliance on God and other supernatural powers helped them to survive. Unfortunately, there were other cancer experiences that participants narrated as burdensome such as finding it difficult to pay for medical bills, extreme tiredness and depression. Finally, in spite of the negative impact associated with cancer treatment, almost all the respondents also expressed satisfaction about the way the health staff assisted and empathized with them during chemotherapy.

## **CHAPTER FIVE**

### **DISCUSSION**

#### **5.0 Introduction**

This section discusses the major findings of the study in relation with the existing literature. The study explored factors that influence resilience among women with breast cancer who received chemotherapy in the Accra Metropolis. The discussion is organized in line with the study 's objectives which include exploration of the experiences of women diagnosed with breast cancer and had received chemotherapy, examination of personal traits (confidence and purposiveness) that influence resilience among women with breast cancer who had received chemotherapy, investigating the support systems that influence resilience among breast cancer survivors and describe how women adapted to breast cancer diagnosis and chemotherapy. The I-resilience model (Cooper, 1999) guided the study in determining the factors that influence resilience among women with breast cancer who received chemotherapy. For the purpose of this study, the purposiveness and confidence construct as proposed by (Cooper, 1999) in the I-resilience model was merged as personal traits in this discussion since these concepts emanated from participants as trait features (optimism) and personal abilities (values and beliefs).

#### **5.1 Experiences of Women Diagnosed with Breast Cancer who Received Chemotherapy.**

Participants in this study diagnosed of breast cancer had received chemotherapy and reported several burdens. These burdens were associated with breast cancer diagnosis and treatment. The burdens, as experienced in this study, were described as physical, social, financial and psychological burdens and these findings

are evident in the literature (Amézaga et al., 2018; Browall et al., 2017; Butow, Fardell, & Smith, 2015; Fox et al., 2017; Hickman et al., 2017; Marker, 2015; Miaskowski et al., 2018; D. Stewart, 2017; Trusson & Pilnick, 2017; van Oort et al., 2018; Zafar et al., 2013)

### **5.1.1 Physical burden:**

The physical burdens reported in this study include loss of taste, fatigue, hair loss, hands-foot syndrome and nausea and vomiting. These findings are reported in the literature. For example, Amézaga et al. (2018), in their study reported that, the most frequently described symptom by cancer patients who received chemotherapy was loss of taste. In their logistic regression analysis, results showed statistically substantial relations between taste loss and participants that received chemotherapy especially carboplatin. In a similar report, Ijpm et al. (2017) reported loss of taste among testicular cancer patients who received chemotherapy. However, this finding is inconsistent with findings of van Oort et al. (2018) where they concluded that the mechanism for taste deviations in cancer patients treated with chemotherapy is not clear, because it could be due to old age (Sergi, Bano, Pizzato, Veronese, & Manzato, 2017).

Also, fatigue and reduced muscle functioning were described by participants as the most commonly experienced physical burden. Nine out of twelve participants narrated fatigue as a major distressing symptom that caused a decrease in quality of life and physical functioning before and during chemotherapy. This is consistent with findings of Hofman et al. (2007), who identified fatigue as the single most persistent distressing symptom among women diagnosed with cancer. This is also congruent with studies by Berger et al. (2010) who reported that fatigue is nearly universal in

those receiving cytotoxic chemotherapy and radiation therapy for cancer. In this study, fatigue led to feeling of weakness and general uneasiness; however, participants regained their strength after they completed the treatment. These findings of regaining strength is inconsistent with Gallagher's (2016) study where she reported that years following chemotherapy, survivors continued to experience fatigue and this lingers on for years. The differences in duration of fatigue could be attributed to the differences in the cancer type as Gallagher (2016) investigated haematological cancer while the current study examines breast cancer.

Furthermore, several participants experienced hair loss as a side effect of chemotherapy. Many of these survivors (eight out of twelve) reported that, they started experiencing extensive hair loss soon after they received their first doses of chemotherapy. This is consistent with many studies which reported alopecia as an obvious sign of chemotherapy side effect after first doses of chemotherapy (Freites-Martinez et al., 2018; Silva et al., 2018; Suwankhong & Liamputtong, 2018; Trusson & Pilnick, 2017). For example, Freites-Martinez et al. (2018) in their study of hair disorders in cancer survivors in the United State reported that hair loss in people with disorders such as cancer who are on chemotherapy experience persistent chemotherapy-induced alopecia. Tosti and Pazzaglia (2007) also concur with this finding with an additional report that, hair loss resulting from chemotherapy among breast cancer patients is usually reversible. However, four other participants reported they started experiencing hair loss after their second cycle of chemotherapy. This is consistent with the findings of Erdem, Kacan, and Gunaldi, (2017). Losing hair was a major concern for women due to several cosmetic reasons. This therefore was not

surprising as one participant narrated that sometimes she saw her hair all over her bed after waking-up from sleep and when she looked into the mirror she got scared. Gallager (2016) in a similar study in Austria reported that hair loss affects cancer survivors when they go out as they feel people would stare at them. In addition, hair loss also made some women feel awkward with little or no confidence in public. Rubio-Gonzalez, Juhász, Fortman, and Mesinkovska (2018) also agreed with this finding by reporting that hair loss is a troubling long-lasting and permanent side effect of chemotherapy and affected persons of all ages. However, the participants in this study though had hair loss, none of them saw it as a permanent side effect. This was because a few months after completing chemotherapy they regained their hair. This is consistent with findings of Yagata et al., (2015).

Additionally, discoloration of the palm, face and foot was also reported by participants as a negative chemotherapy experience. Participants narrated that the change in the palm, feet, and skin began with swelling and erythema following their second dose of chemotherapy. This is consistent with several studies (Abushullaih et al., 2002; Chu et al., 2008; Heidary, Naik, & Burgin, 2008; Lal, 2014; Lassere & Hoff, 2004; Patel, Ringley, & Moore, 2018; Webster-Gandy, How, & Harrold, 2007). For example, Patel et al. (2018) reported that cancer patients on treatment containing docetaxel are susceptible to hands-foot syndrome. This is in consonance with a study in the United States where hands-foot syndrome was detected as a common complication of chemotherapy (Miller, Gorcey, & McLellan, 2014). However, participants revealed that their hands tend to be more commonly affected than their feet. This agreed with findings of Patel et al., (2018). A study of Komatsu,

Yagasaki, Hamamoto, and Takebayashi (2018) in Japan reported that, negative impact of HFS in patients receiving chemotherapy included physical inactivity, fall and daily living. This study finding supports this previous research as some participants described that hands-foot syndrome affected their daily living, especially with severe pain, blistering, moist desquamation and ulceration.

According to Laurentiis et al. (2018); Laurentiis et al., (2018) and Weinstein et al. (2018), nausea and vomiting is associated with adverse reaction of chemotherapy. These researchers reported that chemotherapy induced nausea and vomiting among breast cancer women who felt uncomfortable because they had to always sit close by a chamber pot or chew gum to avoid excessive salivation. Current finding is congruent with this report as some participants recounted that, they experienced nausea and vomiting which was very discomforting. Thus, they felt uncomfortable with the way they had to always have their heads down into the water-closet. In contrast with this finding on chewing gum, a few participants in this study indicated that in order to manage the nauseating effects of chemotherapy they had to chew cola-nut. The reason for these participants chewing cola-nuts could be due to cultural differences as it is a common practice to see West African women chewing cola-nut even when they are not on chemotherapy (Lovejoy, 2014).

In this current study, two out of twelve women were admitted for vomiting. In addition, none of the participants was dehydrated as compared with Shapiro, (2017) where it is reported that patients on chemotherapy suffer from dehydration resulting from excessive vomiting. Also, two participants had consistent urge for vomiting which lasted for almost three months. This was very troubling to these survivors because it led to reduced capacity to enjoy food, as a result of loss of appetite, and this

resulted in weakness and weight loss. This agrees with Hopkinson's (2018) study where it is reported that individuals receiving treatment for cancer are at nutritional risk including cachexia due to nausea and vomiting. Nonetheless, one participant did not experience nausea and vomiting. This could be due to individual differences and the pre-antiemetic effects.

### **5.1.2 Social burden**

More than half of the participants experienced withdrawal from social gathering and work-related activities. This agrees with the findings of Miaskowski et al. (2018) where they reported that, the impact of chemotherapy induced neurotoxicity included withdrawal from activities. In a similar finding, Lai, Ching, and Wong (2017) reported in their qualitative study in Hong Kong that breast cancer patients that received chemotherapy at the out-patient department intentionally avoided social gatherings. In this study seven out of twelve participants avoided social gathering because of the negative side effects they experienced such as tinnitus and hearing loss. This finding is congruent with Miaskowski et al.'s (2018) findings where they reported that in the United State the impact of chemotherapy in adult cancer survivors included tinnitus and hearing loss. In addition, some participants could not go out because of the frequent extreme fatigue they experienced. This supports the findings of Lai et al. (2017) where they reported that tiredness was largely the reason for most breast cancer women 's withdrawal from social gathering.

However, some participants in this study simply withdrew because they did not want to worry others such as family, friends, peers and co-workers. This is not surprising because in an African society, particularly in Ghana, communal living is fundamental. Everybody cares about their neighbours and one will not hesitate to ask

questions about a seeming life change should they notice that in a person (Armah-Attoh & Debrah, 2015). There is evidence of isolation, marginalization and the lack of intimacy (Patterson et al., 2015; Torres et al., 2016) and these were also reported in this study. Social isolation in this study was attributed to the damaging physical effects of chemotherapy on participants' bodies. This finding is consistent with literature that indicated that, many breast cancer patients experience social marginalization and stigmatization due to altered body image resulting from adverse effects of chemotherapy (Torres et al., 2016).

Iannarino et al., (2017); Kelly and Dowling, (2011) reported that, most cancer patients suffer from social burden in that those who have not experienced similar treatment reactions and disease burden like them hardly and do not genuinely appreciate their concern. The current study concurs with this finding as participants observed that during the course of their treatment, several friends were not able to associate well with what they were going through based on the questions they were asked by such friends whenever they met whether in church or at funerals. This somehow reflected how much the participants perceived they had changed since their breast cancer diagnosis. Participants in some instances had to withdraw from their friends, including going to church. This finding agrees with studies of Iannarino et al., (2017). For example, participants who received ineffective social support such as negative stories or comments and rudeness from peers withdrew from all forms of social functions, since participating in social activities enhances long-term development in quality of life and coping (Szalai et al., 2017). These patients, on the contrary suffer from poor adoptive behaviours and isolation (Iannarino et al., 2017).

Some participants in this study described how difficult it was for them to see their children or for their kids to come to them because of the toxic nature of the chemotherapy during their admission. This finding is consistent with a study by Lilliehorn and Salander (2018) where they stated that, isolation of kids and loved ones from patients created discomfort, loss of functions and a sense of being caged. This isolation creates social vacuum and a thousand questions in participants' mind during the course of their treatment (Furlong, 2017). This is supported by participants' narration as some wondered if they were going to be saved. To keep in touch with these loved ones, participants on several occasions had to speak on phone with their children for a longer period in order to help put them at ease.

A number of participants in this study felt guilty about the impact of their cancer on their loved ones and this is consistent with the literature (Erker et al., 2018; Kim & Given, 2008b; Lewis, Fletcher, Cochrane, & Fann, 2008). As a result, several participants exhibited brevity at the expense of sharing their true feelings in order to protect others close to them. This is consistent with previous research stating that those diagnosed with cancer often tried to shelter significant people in their lives (Kelly & Dowling, 2011) such as their spouses for fear of being mocked and humiliated (Kotei, 2015). Some participants preferred revealing cancer diagnosis to their own family members rather than their spouse's family members. This is because they believed that their relations may be more concerned about their health than their spouses' relatives.

### **5.1.3 Financial burden**

This study identified financial burden associated with breast cancer diagnosis and treatment. This agrees with the following studies, Gallagher, 2016; Jagsi et al.,

2014; Medina-Perucha, Yousaf, Hunter, & Grunfeld, 2017; van der Spek et al., 2013; Zafar et al., 2013. For instance, Gallagher (2016) reported that survivors of leukaemia linked their financial burdens to the expensive and prolonged nature of their chemotherapy treatment and laboratory investigations. Some participants in this study indicated that their financial situation became worse because of a series of laboratory investigations they had to undergo. They explained that apart from the cost of drugs and laboratory investigations they were also unable to work full time due to the cancer burden and side effects of chemotherapy. This is consistent with studies reporting that even months after chemotherapy some cancer survivors were unable to resume work and that affected productivity (Berger et al., 2010; Hofman et al., 2007).

It was evident from the study that delay at the hospital affected them financially as some described spending many hours in queues waiting for their turn. This finding is in consonance with existing studies (Lerner et al., 2007; Zafar et al., 2013). The researchers argued that time spent can never be regained hence in entrepreneurship ventures, time wasted has negative financial consequences (Lerner et al., 2007). Although the scope of the present study did not include time and co-operate entrepreneurship, it can be inferred that either time wasted at hospital or home, has the same financial implication.

This study revealed that some women became financially challenged and had to rely on loans with high interest rates to pay their medical bills. This finding agrees with that of Jagsi et al., (2014); Zafar et al., (2013) who also observed that in most instances' cancer patients had to rely on loans to pay their treatment bills. According to Zafar et al., (2013), those who do not go for loans reported having medical debt four

years post diagnosis. These debts, according to Jagsi et al., (2014) varied significantly by race.

A study in Zimbabwe established that breast cancer patients suffer at various places of work. They experience unequal compensation, outright dismissal, discrimination and failure to be promoted (Mahapa, 2018). The present study also found that, some participants were demoted at their work places because for almost a year they were receiving chemotherapy and, because of long queues at the hospital they were absent at work. To buttress these findings, Boykoff, Moieni, and Subramanian (2009) reported that breast cancer patients with chemo-brain exhibit cognitive impairment following chemotherapy and employers will not hesitate to sack an employee with alteration in mental functioning leading to economic challenges (Mizock & Hopwood, 2018). By implication, breast cancer survivors who may be sacked from work might equally suffer financial difficulties.

The unavailability of some chemotherapy drugs in participants nearby hospital made cancer patients' journey financially burdensome as they had to find extra money for travels and for the purchase of those drugs. The finding on extra financial burden among breast cancer survivors is supported by previous research (Chalkidou et al., 2014; Saghir et al., 2011; Mahlich et al., 2018; van Hoppe et al., 2017; Zafar et al., 2013). For instance, Chalkidou et al., (2014) reported that many patients experienced financial loss because they had to travel extra miles to enable them purchase drugs that are not in their treatment centers.

#### **5.1.4 Psychological burden**

Before even the physical recovery progressed, several participants were surprised at the level of the unexpected psychological effects that have taken place in their lives. The level of negative emotions the survivors experienced included depression, anxiety, suicidal tendencies, general distress, isolation, anger and guilt. This is consistent with exiting literature (Aziato & Clegg-Lampsey, 2015; Black et al. 2018; Butow, Fardell, et al., 2015; Chapman, 2015; Marker, 2015; Mitchell et al., 2013; Ng et al., 2017; Okuyama et al., 2017; Zaleta et al., 2018). For those who had completed their chemotherapy, getting life back to normal was reassuring. Yet, several participants were worried about their future health, especially with the ‘fear of recurrence’ dominating their concerns. This agrees with a Şengün İnan and Üstün's (2018) study. For instance, Ellegaard, Grau, Zachariae, and Bonde Jensen (2017) reported that, even though the bodies of cancer survivors may be potentially cancer free after completing their chemotherapy, they are consumed by thoughts of worry. The current study supports this finding as some participants revealed that, they became scared of cancer such that even a boil on their bodies reminded them of cancer.

Participants experienced depression as another major psychological burden they had to go through following chemotherapy. This concurs with previous studies (Mitchell et al., 2013; Ng et al., 2017; Okuyama et al., 2017). In this study, participants narrated that they became distressed upon hearing their cancer diagnosis. The depression became worse when they started experiencing extreme adverse reactions from chemotherapy treatment. Thus, they felt it probably represented a sign of loss of control and the capacity to cope with the stress associated cancer and

chemotherapy. This finding is in consonance with previous studies where depression was reported to be a common reaction to cancer diagnosis and chemotherapy effects (Mitchell et al., 2013; Ng et al., 2017; Okuyama et al., 2017).

## **5.2 The Personal Traits (Purposive and Confidence) that Influence Resilience among Women with Breast Cancer who had Received Chemotherapy.**

Breast cancer survivors identified four personal traits that enabled their resilience during the breast cancer diagnosis and treatment. These include hope, optimism, self-esteem and confidence, and these are consistent with previous studies (Du & King, 2013; Ho et al., 2011; Ho et al., 2010; Stanton, Danoff-burg, & Huggins, 2002b; Twietmeyer, 2018).

The study revealed that health professionals assisted participants in meeting their expectations during chemotherapy. This finding is consistent with other studies that revealed that hope enhances resilience during adversities and helps individuals to create and achieve life goals (Belkora, Loth, Volz, & Rugo, 2009; Ho et al., 2011; Ho, Ho, Bonanno, Chu, & Chan, 2010; Stanton, Danoff-Burg, & Huggins, 2002; Twietmeyer, 2018). For example, a quantitative study in Hong Kong by Ho et al. (2011) showed a significant association between hope and post-traumatic positive health outcomes in cancer patients. Similarly, Li, Yang, Liu, and Wang (2016) reported that women with higher hope adjusted better to cancer than those who were not. However, previous studies on hope show that although hope is a good thing, imposition of hopefulness is not the best, rather hope requires time and nurturing by people, including clinicians and patients themselves, to allow the functioning of a full range of emotions in a supportive environment (McGrath, 2004; Yue, 2011). Similarly, Groopman, (2004) Warned against creating false hope in the name of

bouncing back. To him the results of courage and resilience can only be achieved by true hope. Thus, false hope only assists as a provisional defense factor.

In this study, participants positioned their hope in themselves for recovery. They believed that only perseverance can get them through the treatment efforts. This finding is congruent with earlier studies where it was established that resilience among survivors of colorectal cancer in China (Hou et al., 2010) reported high scores on hope and optimism scales with such people demonstrating less emotional distress (Folkman, 2010; Hou et al., 2010). By this, the participants embraced hope to reach a balance in their lives by integrating the reality of threats they faced such as cancer pain, side effects of chemotherapy and fear of reoccurrence of cancer to survive.

In this study, it was observed that participants were purposeful to live and so they kept assuring themselves that they will recover from their ill health. This is consistent with literature (Alim et al., 2008; Dunn et al., 2011; Gallagher, 2016; Gartland et al., 2011; Scheier & Carver, 1985; Segerstrom, Carver, & Scheier, 2017). Participants in this study were inclined to see their conditions improve by expecting greater results from their treatment. They were of the conviction that they too will get well since many women had recovered from breast cancer according to the report they received during counseling. This expectation made them to cooperate well with caregivers. This finding is consistent with the findings of Gallagher (2016) in which she reported that haematological patients who were optimistic reported high expectations of recovery and cooperated better with physicians. This also agrees with Boehm et al. (2018) study in Philadelphia in which random effects meta-analyses investigating optimism association with three health behaviours showed that

optimistic persons were inclined to involve in healthier behaviours compared with individuals with less optimism.

The study revealed that many of the participants were just optimistic as they were of the view that without optimism they could not continue with the chemotherapy treatment because of the adverse reactions they were experiencing. This is consistent with Matzka, Köck-Hódi, Jahn, and Mayer's (2018) study in which they reported that optimism enhances resilience. Thus, optimistic patients stay through treatment in spite of any harrowing effects. In a similar finding, Bouchard, Carver, Mens, and Scheier (2017) reported that, optimists are more able to cope better with adversities because they are confident about the future. This confidence enables them to adhere to treatment regime and address possible challenges they may encounter such as adverse effects of chemotherapy. Thus, Bouchard et al. (2017) emphasis that, optimistic individuals attend to and pre-emptively address threats to their well-being.

It was realized that participants put on aggressive (a fighting spirit) effort during treatment and that assisted them to erase from their minds that cancer is not curable and that it can reoccur. This is in consonance with previous studies (Schou et al., 2004; Starreveld et al., 2018). For example a study in San Diego State University revealed that optimists are better constructive in the use of health-related messages and are likely to demonstrate more fighting spirit as an adaptation strategy with less fear of cancer reoccurrence than pessimists (Schou et al., 2004). This finding agrees with that of Stewart and Yuen's (2011) in which they reported that less optimistic cancer survivors showed higher levels of fear of cancer reoccurrence while optimistic survivors exhibited resilience with decreased fear of cancer reoccurrence. However,

Dumalaon-Canaria, Prichard, Hutchinson, and Wilson (2018) in their study in Australia reported that optimism did not moderate the relationship between causal attributions and well-being. This difference could be due to methodological difference as the previous study adopted quantitative method and the present study used qualitative approach.

In this study it was realized that self-esteem enabled participants to stay through treatment. As some of them described that there was a strong inner voice that kept encouraging them during treatment. Thus, the voice stayed as a constant reminder to them in order to be self-assured in their own self-worth to face the setbacks. This is in consonance with previous studies (Fletcher & Sarkar, 2013; Rodin et al., 2013). For emphasis, Rodin et al. (2013) reported that patients with cancer of the blood reported poor interpersonal relationships with HCP 's as a result of experiencing low self-esteem while those with high self-esteem reported good relationship with HCP. This is also consistent with Jang, Park, Chong, and Sok's (2017) findings. In their investigation in South Korea, Jang et al. (2017) reported that self-esteem is a key and primary predictor of resilience among patients with burns.

To help maintain their self-esteem, some participants also set new goals for themselves and focus their minds on happy moments in order to overcome the harrowing effects of chemotherapy and other problems resulting from the disease burden. This finding is consistent with other literature that reports that to persist and achieve goals in the face of setbacks individuals draw from their self-esteem clock (Erol & Orth, 2017; Gallagher, 2016; Orth & Robins, 2013). For example, Erol and Orth (2017) reports that high self-esteem is beneficial in romantic relationships and foster resilience among couples with setbacks. Nonetheless, one participant in this

study revealed that her self-esteem was temporary and it came by surprise because she never knew she could stand the diagnosis of cancer let alone treatment. This finding differs from Orth and Robins' (2013) findings where they reported that self-esteem has a long-term impact. The differences in the findings may be due to individual differences as only one out of twelve participants did not feel self-esteem has a long-term impact. In addition, Sowislo and Orth (2013) in their meta-analysis reported that self-esteem is a major factor against depression. This longitudinal study investigated the impact of self-esteem on depression using (77 studies) and self-esteem on anxiety (18 studies). The findings revealed a strong relationship between self-esteem and depression. For instance, low self-esteem largely contributed to severe depression and high self-esteem enhanced resilience.

It was realized from the study that participants relied much on clinicians for their recovery. This is congruent with existing studies (Cao, Qi, Yao, Han, & Feng, 2017; Ha & Longnecker, 2010; Lam et al., 2017; Peterková et al., 2017; Sharif, 2017; Stewart & Yuen, 2011; Wass & Southgate, 2017). Participants revealed that immediately they started chemotherapy treatment, they encouraged themselves that they will recover. They believed with confidence they could influence events and their outcomes during the course of treatment through self-assurance and motivation. These participants managed their adverse reaction of chemotherapy. This supports Lam et al.'s (2017) finding where they reported that breast cancer women with poor confidence and tired less distress saw their diagnosis as another blow in life. Maladaptive and thought suppression were regular reactions to illness. A feeling of demoralization emerged in their accounts. On the contrary, breast cancer women with confidence in a form of goals, competence and the willingness to achieve, co-operated

well with care providers and experienced stable pain emanating from the breast cancer illness and side effect of the chemotherapy. In this study, participants revealed that confidence enabled them to avoid dysfunctional repetitive thoughts and that assisted them to regain strength and bounced back to normal. This is congruent with previous studies (Lam et al., 2017; Liu-Ambrose et al., 2004; Robinson, 2017; Sharif, 2017).

This study revealed that participants depended more on clinicians that were confident in prescribing their treatment. Some of the participants had confidence that when the prescriber prescribes the right medication they will recover. This agrees with the previous studies (Hillen, Haes, & Smets, 2011; Lee & Lin, 2008; Street, Makoul, Arora, & Epstein, 2009; Weng, 2008). For example, a study in the Netherlands revealed that trust in clinicians by patients enhances resilience. Thus, when patients perceive physicians to be technically competent, patients centered and honest, they build their confidence around such personnel. This promotes a trusting relationship, facilitates communication and medical decision making, and decrease patients fear, and consequently fosters resilience (Hillen et al., 2011). This is also congruent with the findings of Weng (2008) that better treatment adherence by patients is associated with the level of confidence the patient has in physicians. Accordingly, patient's recovery is largely facilitated by the relationship between the physicians and them (patients) (Lam et al., 2017).

### **5.3 The Support Systems that Influenced Resilience among Breast Cancer Survivors.**

The support systems identified in this study that facilitated resilience among participants were: social support, spiritual support, medical support and financial support.

This is consistent with several previous studies (Adejoh et al., 2013; Butow et al., 2011; Carver, Smith, Petronis, & Antoni, 2006; Cheng et al., 2016; Faust & Cake., 2016; Kelly & Dowling, 2011; McGrath, 2004; Molina et al., 2014; Moon, Chih, Shah, Yoo, & Gustafson, 2017; Ramsey et al., 2013; Zahlis & Lewis, 2010). The social supports participants in this study received were from peers, families and religious groups. This as well has been documented (Costa et al., 2017; Faust & Cake, 2016; Moon et al., 2017). For example, Cake (2016) revealed that information and emotional support from breast cancer survivors assisted newly diagnosed breast cancer patients to build resilience. The current study supports this finding as participants revealed it was very important for them to meet a breast cancer survivor.

Participants believed seeing the survivors had encouraged and assured them that they can also survive. This is also consistent with Moon et al.'s (2017) finding that, fear of newly diagnosed cancer patients are always driven away with a renewed strength because of the information provided them by breast cancer survivors on how to contribute to their own recovery. Additionally, many participants revealed they survived because of the support they received from their family and friends. Three out of twelve participants indicated that just knowing that people care about them and that those people were going to be there for them assisted them to continue with their chemotherapy treatment in spite of its negative effects. This finding is consistent with previous studies (Costa et al., 2017; Molina et al., 2014; Salakari et al., 2017). For instance, Molina et al. (2014) in a study in the United States reported that survivors of breast cancer who had married have demonstrated extra positive mental functioning and resilience than those who were single. It was also realized that though participants had support from people, these loved ones could not help meet some of their health needs including hygiene and money for purchasing drugs. However, until when some

other key persons helped them to meet their health needs. It may be inferred from the current finding that even though a lot of family members may be visiting a patient as reported by Molina et al. (2014) not all may provide the needs of the patients.

Medical support, has been reported in literature to facilitate clinician- patient interrelationship, reduce fear and promote treatment adherence, as well as foster resilience for recovery (Butow et al., 2011; Knott et al., 2012; McCaughan et al., 2012; Molina et al., 2014; Náfrádi, Kostova, Nakamoto, & Schulz, 2017; Rabin et al., 2011; Xuereb & Dunlop, 2003). For instance, Náfrádi et al. (2017) in a qualitative study in Switzerland explored 20 patients with chronic pain and reported that good patient- doctor relationship promotes resilience among patients with chronic pain. This is consistent with findings of this study as participants revealed that, the interpersonal relationship that existed between them (patients) and the doctors assisted them to recover. This relationship includes shared feelings between the patients and the clinicians. Thus, the clinicians treated them with respect, empathy, and love. This agrees with a qualitative research involving twenty cancer survivors who reported emotional support characterized by respect, listening, compassion, understanding and reassurance by doctors as particularly linked to cancer patient's adjustment to their illness (Adejoh et al. 2013). This study reaffirmed earlier investigations highlighting the merits of empathy and rapport (Knott et al., 2012) as well as a warm and trusting environment, in which the patients feels valued and is treated as a unique person (Butow et al., 2011).

The study identified that health education by the health professionals during treatment assisted the participants in preparing ahead of their treatment for possible effects of chemotherapy. These findings are consistent with previous studies (Carver

et al., 2006; McCaughan et al., 2012; Molina et al., 2014; Rabin et al., 2011).

Participants indicated that, the timely information and resources provided by clinicians assisted them set realistic goals, allayed anxiety and developed internal sense of control. This is supported by (Gallager, 2016; Xuereb & Dunlop, 2003).

However, two out of twelve participants revealed that even though the clinician 's empathy, rapport and timely information assisted them, there were instances they did not actually understand what the clinicians were either talking about or had written on their folders because of the medical jargons.

Financial support has been documented as a major support for cancer patients in establishing resilience and the absence of which patients go bankrupt (Cheng et al., 2016; Harding et al., 2017; Lehmann, DeLisa, Warren, Bryant, & Nicholson, 1978; Mostert et al., 2014; Ramsey et al., 2013). For example, Mostert et al. (2014) in a quantitative study in Kenya reported that health insurance assisted in having health access. Thus, children and or their parent with National Health insurance are able to access healthcare and be discharged home while those without insurance are likely to defer treatment or be detained after treatment. This study supports this finding as one participant narrated that she used her company health insurance during her care.

However, eleven participants indicated they self-financed their healthcare by paying their own medical bills. Participants also revealed that their partners were supportive in paying their medical bills and other expenditures like grooming. This agrees with Zahlis and Lewis' (2010) findings where spouses in the United States supported their wives after breast cancer treatment financially and in household chores. This is also consistent with a report by Sandham and Harcourt (2007) where they indicated that husbands in England assisted their breast cancer women during treatment financially.

Other survivors also narrated that their spouses paid for their transport to and from treatment centers. The findings of this study concur with literature that reports that, husbands gave their wives reasons to live during their adversities and this is contained in the manner in which they cared for wives financially including paying for their transport (Altschuler et al., 2009; McAdoo, 2007).

Additionally, it was observed that participants received support from religious organizations and some church members during the course of treatment. This is consistent with previous studies (Cojocar, Cojocar, & Sandu, 2011; Donkor, 2016; Hansen-Addy, 2014; Huddleston, 2016; Lartey, 2018). For instance, Donkor (2016) reported that in Ghana Ankaful psychiatric hospital patients were given donation from a religious organization to support their medical expenses. In a similar report, Cojocar et al. (2011) stated that in Romania, faith-based organisations are involved in the development of social and medical services including financial donation to patients. In this study, participants narrated that the donations were very helpful to them as it enabled them pay for medical services. This is consistent with Kang, Goodney, and Wong's (2016) findings in which they indicated that financial support no matter the amount is always helpful to patients due to the cost of cancer care.

#### **5.4 Adaptation to Breast Cancer Diagnosis and Chemotherapy Treatment**

Adaptation, being a process of coping with a situation, has been well investigated and reported in literature to influence resilience among cancer patients (Folkman & Lazarus, 1985; McGrath, 2004; Nipp et al., 2016; Olsson, Bond, Burns, Vella-Brodrick, & Sawyer, 2003; Pieters, 2016; Waldrop, O'Connor, & Trabold, 2011; Xuereb & Dunlop, 2003). For instance, Nipp et al. (2016) in their study in the United State on incurable intestinal or lung cancer reported that, cancer patients that

accept their present condition due to their previous experience adopts acceptance coping approaches (ACA) which are associated with better quality of life and resilience, whereas those who deny their present ill because of lack of previous experience engage in self-blame which results in poor health outcomes. This is consistent with the current study as participants narrated that they adopted several coping strategies such as using family's past tragic lessons and personal experiences to cope with the cancer burden. Even though Gallagher (2016) reported in her finding on leukaemia patients in Australia that leukaemia patients used both emotional focused coping (EFC) and problem focused coping (PFC) to survive, participants in this study only adopted problem focused coping.

Thus, their personal experiences assisted them to contain the side effect of chemotherapy by dealing with the cancer as any other disease which can be cured. These participants indicated that their ill health in the past from typhoid and menstrual cramps prepared them on how to adjust to adversities in life. Two participants revealed that they experienced severe menstrual cramps, nausea and vomiting and easy fatigability. They believed after adapting to such painful experiences it was easy to cope with the breast cancer as some of the chemotherapy adverse reactions were almost the same as those of their past experiences. This finding is also consistent with findings from other studies that categorized adaptation into lessons from past family and personal experiences (Denz-Penhey & Murdoch, 2008; Furman, 2004; Kim & Given, 2008a; Larkin et al., 2018; Rolland, 2005; Rolland & Walsh, 2006; Walsh, 2015).

The study also identified that some participants adopted rationalization as a coping strategy through meaning finding in life. This has been reported to enhance

cancer patient's survival outcomes and promotion of resilience (Laubmeier, Zakowski, & Bair, 2004; van der Spek et al., 2013). For instance, a study in the Netherlands has predicted the effect of finding meaning as a positive mediation among the terminally ill and resilience (Spek et al., 2013). The current study supports this finding as two out of twelve participants rationalized the cause of their illness to some supernatural powers including the Almighty God and other deities. These made some participants to become more religious so that they could pray to God for healing and survival. This is in consonance with literature (Adejoh et al., 2013; Akuoko et al., 2017; Choumanova et al., 2006; Nukunya, 2003; Rajkumar et al., 2008). For example, Adejoh et al. (2013) in a study in Nigeria revealed that hamatological cancer survivors identified spirituality/religion as a measure to escape from worrying about their health problems. This is further supported by previous studies suggesting that spirituality has an important role in helping individuals either to escape or comprehend the cause of their illness such as cancer and they do this by seeking prayer as this helps them to maintain a sense of justice and hope for recovery (Choumanova et al., 2006). And according to Nukunya, (2003), Ghana is a highly religious society and several of the inhabitants believe in either Almighty Supreme God or other deities, hence, the tendency to attribute occurrences either natural or artificial to a supreme being especially when it is hard to establish the causes of the experiencing events.

### **5.5 Evaluation of the I-resilience Model**

The I-resilience model was propounded in 1999 by Robertson Copper. Originally, the model was developed for dealing with pressure in work context. This model was selected to guide this study because of the similarities in the idea behind its formulation such as how one is confronted with an adversity and bounces back to

resume one's previous life. The model has four domains: Social Support, Adaptability, Purposefulness and Confidence. The objectives of the present study were therefore formulated based on these domains of the model. However, some of the terminologies (confidence and purposefulness) could not be used to obtain an individual's description of experiences of resilience. For that matter confidence and purposefulness were merged to form personal traits, because the individual is not a co-operate body as is case of a bank. Thus, the individual rather describes the personal traits or characteristics. Four themes emerged from the present study of which three (personal traits, support systems and adaptation) were consistent with the model, while one (the burden associated with breast cancer diagnosis and treatment) emerged from the data as the fourth theme hence does not relate to the construct of the model.

The confidence and purposiveness theme of the model has no subthemes. In this study, personal traits (confidence and purposiveness) theme has: hope, optimism, self-esteem and confidence as subthemes. With the exception of confidence, the rest of the subthemes under this domain in the present study were not specified by the model, however, it was evident that hope, optimism and self-esteem could influence one's resilience. Thus, the merged theme and subthemes could be accommodated in the model to help individuals describe their personal characteristics that help them to be resilient.

The social support theme of the model has no specified sub-constructs. The present study had support systems as the theme with the subthemes being: social support, medical support and financial support. Apart from the social support, the medical and financial supports were inconsistent with the model theme. The medical support is considered vital to breast cancer patients' survival. This is so because

chemotherapy has several debilitating effects which can be so discouraging for women to complete the treatment; but with empathy and follow-ups on clients by clinicians will enable patients continue treatment.

Similarly, financial support is very important among cancer patients during treatment. Cancer treatment is expensive and the duration for treating cancer is longer. However, in low-income countries such as sub-Saharan Africa, there is a lack of financial support system dedicated to helping those who are ill. The ability of cancer patients to afford the cost of treatment can influence their survival and hence their resilience. Financial support from family, friends and significant others for patients can give patients comfort of mind and subsequently lead to increased quality of life and promote resilience. These support systems when available will enable the patients to recover quickly. Therefore, the medical support is suggested to be included in the model to help explore the broader support system options that may influence resilience.

The adaptation theme of the model also has no sub-constructs. This study presented similar themes with three subthemes: preparedness, inner strength and rationalization.

Patients' past experiences can serve as a source of strength especially when the outcome from that past experience was successful. Measures taken to cope with such experiences can be recalled when one is challenged with a similar situation. This experience can enable patients to adapt better and recover quickly. Since the experiences of chemotherapy adverse reactions are similar to many other symptoms it could be appropriate to include preparedness in the model to help patients recount measures that influenced their adaptation during their illness.

Coping with disease burdens and treatment effects require endurance and tenacity. Thus, for a patient to be able to adopt to health crises and recover to be called resilient, then such patients must cultivate the zeal to deal with challenges as they meet them in life. These include: remaining focused on the adversity and developing a sense of inner power to deal with the situation. These personal resources when available assist patients to overcome health challenges and resume normal life. Inner strength is therefore suggested for inclusion in the model.

Finding meaning and justifying the cause of illness to spiritual factors was identified. Such belief influences patients' coping strategies and determine their resilience since they used spirituality to cope with the illness. Therefore, it is suggested for its inclusion in the model so as to enable its use for examining the various adaptation strategies patients use during health challenges especially in the sub-Saharan Africa.

Additionally, this study identified the burden associated with breast cancer diagnosis and treatment. This new theme had four subthemes: physical, social, financial and psychological. These physical, social, financial and psychological experiences of patients identified were described as the negative impact of breast cancer and chemotherapy. These experiences are important because it is only the patients who could tell how they felt.

Even though there were some few modifications to construct of the model themes to reflect personal characteristics of an individual 's experiences of resilience, these modifications were needed to enhance the model capacity to adequately explore factors that influence resilience. In general, there was consistency between the model and the present study.

## **5.6 Suggestions for the Modifications of the Model**

In view of the themes and subthemes of the present study, the following suggestions are proposed for modification of the I-resilience model (Cooper, 1999) for all patients.

The theme, –personal traits with subthemes: hope, optimism, and self-esteeml could be added to the model to help explore personal characteristics of an individual’s experiences of resilience in the model. Similarly, the support system with its subthemes: medical support and financial support should be included in the model to help explore the various support systems that may influence resilience.

Furthermore, the new theme of the present study which explored the experiences of patients during adversities is important to the model since patients meet adversities before they gather both personal and external resources to overcome them and be termed resilient. Therefore, the burden associated with breast cancer diagnosis and treatment could be made part of the I-resilience model (Cooper, 1999)

## CHAPTER SIX

### SUMMARY, IMPLICATIONS, LIMITATIONS, CONCLUSION AND RECOMMENDATIONS

#### 6.0 Introduction

This chapter presents the summary of the entire study, implications of the research findings to nursing practice, nursing education, nursing management and nursing research. Also, limitations of the study, conclusion and recommendations are discussed.

#### 6.1 Summary

In this study, a qualitative exploratory descriptive design was used to explore the factors influencing resilience in women who completed chemotherapy for breast cancer in Accra Metropolis. The study was conducted in the Accra Metropolis and participants were recruited using purposive and snowball sampling techniques. Data collection began after ethical approval was given by the Institutional Review Board at the Noguchi Memorial Institute for Medical Research, University of Ghana. Participants were purposefully recruited and data reached saturation on the 12th participant. The interview guide was pretested at the 37 Military Hospital to ensure that participants understood questions to obtain responses that answers the research questions. The interview guide was designed using the constructs of the I-resilience model (Cooper, 1999) and the objectives of the study. Interviewing of participants and data transcription occurred concurrently. The survivors who agreed to take part in the study were made to sign a consent form. All the interviews were audio recorded and transcribed verbatim. Thematic content analysis was employed in analyzing the data.

The major findings showed that most of the breast cancer survivors experienced several burdens that were associated with breast cancer diagnosis and treatment and they were described as: physical, social, financial and psychological burden. The physical burdens were loss of taste, discoloration of palm, face and foot, and nausea and vomiting. However, fatigue and loss of hair were the most commonly experienced physical burden. Socially, participants revealed they had to withdraw from social gatherings and work-related activities because they did not want to worry others such as family, friends, peers and co-workers. However, other participants withdrew not because they did not want to worry others but due to the side effects of the chemotherapy they were experiencing such as hearing loss and tinnitus. Other participants expressed how difficult it was for them to see their children or for their kids to come to them because of the toxic nature of the chemotherapy during their admission.

Survivors also linked their financial burden to the expensive and prolonged nature of their chemotherapy treatment and laboratory investigations. Some indicated their financial situations became worse because they were unable to work full time due to the cancer burden and chemotherapy side effects they were experiencing at the time such as fatigue. Other participants had to rely on loans from banks to enable them pay their medical bills and these loans also came with other conditions such as high interest rates thereby worsening participants financial situations.

Psychologically, some participants experienced fear of cancer reoccurrence, depression and sadness. Completing chemotherapy and getting life back to normal with its control and predictability was reassuring. Even though their bodies were potentially cancer free after completing their chemotherapy, participants were

consumed by thoughts of worry and became scared with any health-related symptoms like boils on their bodies.

The second, third and fourth themes (personal traits, support system and adaptation respectively) were all positive outcomes related to the factors that influenced resilience among breast cancer survivors. Those factors that made significant and unique contributions to the model were social support and adaptation. Survivors revealed they got social supports from peers, families and religious groups. It was very important for participants to meet breast cancer survivors. This is because, survivors were able to encourage and assure participants that they could also survive. For adaptation, participants adopted several coping strategies, such as preparedness, inner strength/self-efficacy and rationalization to adjust to cancer diagnosis and the side effects of chemotherapy. Furthermore, confidence by participants and on the physicians also influenced participant's survival. This is because participants depended more on physicians whom they believed were competent and could prescribe the best treatment for them for recovery.

## **6.2 Implications**

The findings from the study had implications to nursing practice, education, management, and research.

### **6.2.1 Nursing practice**

This study indicated that confidence by clinicians plays an important role in the recovery of breast cancer patients as it helps patients trust their prescriptions and care. Nurses and doctors should acknowledge the role of confidence and endeavour to exhibit it during their interactions with patients throughout treatment phases. This can be achieved by creating rapport with patients, avoiding medical jargons, being patient

and independent. This study also revealed that prolonged waiting hours at the hospital has a financial burden on participants therefore breast cancer patients on chemotherapy should be given immediate attention so as to help them meet their physicians and be able to go and continue with their economic activities. This will enable them get money to pay for their medical bills.

### **6. 2. 2 Nursing education**

The study identified that health education by clinicians was helpful to participants in managing the side effects of chemotherapy and adapting to cancer diagnosis.

Therefore, curriculum on Oncology nursing should be developed to train more nurses.

This training shall offer nurses with specialised skills to render a comprehensive care to breast cancer patients. Additionally, these nurses should be taught how to be more empathic during patient care so as to foster nurse-patient relationship and promote patients' recovery.

### **6.2.3 Nursing administration**

The findings from the study revealed that some participants did not have education on the side effects of chemotherapy. Therefore, policy on public education on possible side effects of chemotherapy should be undertaken both in the hospital and in the media to make chemotherapy more acceptable to breast cancer patients. Also, the study recognizes the financial burdens associated with cost of chemotherapy drugs and laboratory investigations hence the need for government to broaden the national health insurance scheme (NHIS) to cover the total cost of treatment, particularly chemotherapy.

#### **6.2.4 Future research**

Participants in this study were recruited from the urban settlement and conditions under which resilience occurs in those with breast cancer could differ since one's place of location can limit access to support systems. Hence, it is recommended that future research should recruit from rural settlements. Also, further studies should examine not only the cancer survivor's experience, but also include significant others who participate in the cancer patient's treatment phase. Again, future research involving the expert's interdisciplinary teams will provide a deeper understanding due to the complexity of care needs of breast cancer patients.

#### **6.3 Limitations**

The study was conducted by a male researcher. During the interview, issues of the female sexual organ such as the breast and other sexuality issues like menstruation, bleeding from the vagina, dryness in vagina and infertility arose. The interviewees might have felt uncomfortable during the discussion and this may have affected full disclosure of issues relating to their sexual behaviour and functions. Survivors who took part in the study saw themselves as being resilient.

#### **6.4 Conclusion**

Several factors influence resilience among cancer patients. The study explored factors that influenced resilience in women who completed chemotherapy for breast cancer in the Accra Metropolis. Some of the findings of the study were consistent with the I-resilience model (Cooper, 1999). The study identified that before patients developed resilience, they had already experienced some physical, social, financial and psychological burdens some of which continued throughout the phases of treatment. To survive, participants therefore mobilized both internal and external

resources to cope with the effects of chemotherapy and cancer burden. The coping strategies participants adopted during chemotherapy included: spirituality (finding meaning), avoidance coping through inner strength (self-efficacy) and past tragic lessons.

## **6.5 Recommendations**

The following recommendations were offered based on the findings from the study to breast cancer women, clinicians and the Ministry of Health.

### **6.5.1 Women with breast cancer**

1. Women who survive breast cancer should join breast cancer support groups so as to encourage newly diagnosed breast cancer patients and help allay their fears.
2. Women with breast cancer are encouraged to integrate deeper into their nuclear and extended families for adequate family support.
3. Breast cancer patients should seek information on cancer treatment and its associated complications.

### **6.5.2 Clinicians**

1. There should be effective interpersonal skills and holistic care when interacting with breast cancer patients. These interpersonal skills and holistic care should include being empathetic.
2. Both nurses and doctors providing care to breast cancer patients should be confident in their professional conduct so as to inspire trust among breast cancer patients.

### **6.5.3 The Ministry of Health/Ghana Health Service.**

1. The Ministry of Health and other relevant stakeholders should influence government 's policy on National Health Insurance Scheme to cover the total cost of all breast cancer treatments.
2. The Ghana Health Service should organize refresher course/in-service training for qualified health professionals on the management of breast cancer and the side effects of chemotherapy.

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## **Appendix A: Background Information form**

### **Section A**

#### **Demographic Information**

**Pseudonym.....**

1. Age.....
2. Marital status.....
3. Number of children.....
4. Occupation.....
5. Current status of employment.....
6. Date of BC diagnosis.....
7. Date of completed treatment.....
8. Religion.....
9. Tribe.....

## Appendix B: Interview Guide

### Section B

#### Guiding Questions

1. Please can you tell me your experience following treatment for breast cancer?
2. How has the experience changed your life?
3. Please describe the most difficult time for you during treatment?

Probe:

-Why was it the most difficult?

4. What did you do by yourself that got you through the treatment of BC?

• Probes:

-Confidence

-Inner strength

-Hope

-Pray

5. How have you endure during treatment?
6. How did the health professionals help you to endure during treatment?

• Probes:

- Empathy by nurses

-Education on condition by nurses

-Effective communication

-Efficient drug administration

-Respect for time by medical staff

7. How have your family helped you to adjust during treatment?

- Probes:
  - Spouse
  - Children
  - Siblings

8. What other things helped you to cope during treatment?

- probe
  - Non-governmental organisations
  - Church members/ religious groups
  - Financial institutions
  - Support groups,
  - Health care professionals
  - Friends

9. Is there any other thing that I have not asked you that you want me to know?

## **Appendix C: Information Sheet and Consent form**

### **CONSENT FORM**

Title: Exploring Factors that Influence Resilience among Breast Cancer Women who Received Chemotherapy in the Accra Metropolis

Principal Investigator: Gbande Sulleh

Address: Department of Adult Health, School of Nursing and Midwifery, College of Health Sciences University of Ghana

P.O. BOX LG 43

Legon- Ghana.

**General Information about Research** The study aims to explore your knowledge on factors that influence your ability to go through drug treatment for breast cancer. I will be grateful if you could provide me with information on how family, social groups, friends, and nurses' supported you in your recovery. I will be using a face to face interview which will be recorded under your consent. The interview is expected to last between 45 to 60 minutes. Interview shall be held at a place and time convenient to you and you will be required to sign a consent form before the interview. The interview shall be in English and Twi. Your personal details shall not be recorded. Your information provided shall be between only the researcher, his assistants, and supervisor. No other persons shall have access to it. Your name shall not be mentioned anywhere in the write-up.

**Possible Risks and Discomforts:** Harm is not expected in the process of interview. Emotional distress and physical tiredness may be anticipated. In that case, the interview will be paused and continued at a later time when the participant is ready. A clinical

Psychologist services may be made available for free when emotional distress is experienced during the interview

**Possible Benefits:** Findings shall help provide efficient care to patients should there be reoccurrence of condition. Finding shall also help render competent care to patients who may receive chemotherapy in the future.

**Confidentiality:** Every information obtained from you will be kept in a CD room and in a cabinet and locked with key from reach of all manner of persons except the researcher, researcher assistants, supervisor and independent coder who will have access to the data. Data will be used for only academic purposes and also the device that will be used to audiotape your voice will not be shared with any other person (s). Your biographic data will not be audio taped, and your name too will not be mentioned throughout the research process; only pseudonyms will be use.

**Compensation:** You will be given snack such as pie and malt.

**Voluntary Participation and Right to Leave the Research:** To voluntarily participate or withdraw from the study is solely your right and thus, depends on you to decide at any point in time of the study. And there will be no risk of withdrawal from the study.

#### **Contacts for Additional Information**

In case of further contact regarding my study you can reach me on 0241382869, Gbande Sulleh, [gsulleh@gmail.com](mailto:gsulleh@gmail.com) Or Professor Lydia Aziato, school of nursing and Midwifery, university of Ghana, Legon, phone number 0208552719.

### Your rights as a Participant

This research has been reviewed and approved by the Institutional Review Board of Noguchi Memorial Institute for Medical Research (NMIMR-IRB). If you have any questions about your rights as a research participant you can contact the IRB Office between the hours of 8am-5pm through the landline 0302916438 or email addresses: [nirb@noguchi.ug.edu.gh](mailto:nirb@noguchi.ug.edu.gh)

### VOLUNTEER AGREEMENT

The above document describing the benefits, risks and procedures for the research title **-Exploring Factors that Influence Resilience among Breast Cancer Women who Received Chemotherapy in the Accra Metropolis**” has been read and explained to me. I have been given an opportunity to have any questions about the research answered to my satisfaction. I agree to participate as a volunteer.

Date  
Volunteer

Name and signature or mark of

#### **If volunteers cannot read the form themselves, a witness must sign here:**

I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

---

Date  
Witness

---

Name and signature of

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

---

Date  
Who  
Obtained Consent

---

Name Signature of Person

**Appendix D: Table 2. General Profile of Participants**

**Appendix D: Table 2. General Profile of Participants**

1	Pseudonym	Age	Marital status	No. of children	Occupation	Date of BC diagnosis	Date of completing treatment	Religion	Tribe
2	P1	44	Married	3	Teacher	2015	2016	Christian	Ga
3	P2	77	Widow	5	Selling provisions	2014	2015	Traditional	Ga
4	P3	50	Married	4	Nursing	2013	2014	Christian	Ga
5	P4	38	Married	1	Fashion designer	2016	2017	Christian	Adangbe
6	P5	61	Married	2	Pensioner	2013	2014	Christian	Ewe
7	P6	38	Married	2	Fashion designer	2016	2017	Christian	Ga
8	P7	44	Married	2	Textile telephones	2014	2015	Muslim	Dagaare
9	P8	50	Married	3	Teacher	2016	2015	Christian	Aka
10	P9	44	Married	4	Teacher	2013	2014	Muslim	Hausa
11	P10	43	Married	2	Banker	2015	2016	Christian	Akan
12	p11	43	Marital	5	Fashion designer	2013	2014	Muslim	Hausa
13	P12	39	Marital	2	Teacher	2016	2017	Christian	Akan

### Appendix E: Summary of Themes

THEMES	SUBTHEMES
5. Burden associated with breast cancer diagnosis and treatment	<ul style="list-style-type: none"> <li>• Physical burden</li> <li>• Social burden</li> <li>• Financial burden</li> <li>• Psychological burden</li> </ul>
6. Personal traits (purposive and confidence)	<ul style="list-style-type: none"> <li>• Hope</li> <li>• Optimism</li> <li>• Self-care</li> <li>• Confidence</li> </ul>
7. Support systems	<ul style="list-style-type: none"> <li>• Social support</li> <li>• Medical support</li> <li>• Financial support</li> </ul>
8. Adaptation/coping	<ul style="list-style-type: none"> <li>• Preparedness</li> <li>• Inner strength</li> <li>• Rationalisation</li> </ul>

## Appendix F - Ethical Approval Letter

**NOGUCHI MEMORIAL INSTITUTE FOR MEDICAL RESEARCH**  
*Established 1979*      *A Constituent of the College of Health Sciences*  
University of Ghana

**INSTITUTIONAL REVIEW BOARD**

Phone: +233-302-916438 (Direct)  
+233-289-522574  
Fax: +233-302-502182/513202  
E-mail: [nirb@noguchi.ug.edu.gh](mailto:nirb@noguchi.ug.edu.gh)  
Telex No: 2556 UGL GH

Post Office Box LG 581  
Legon, Accra  
Ghana

My Ref. No: DF.22  
Your Ref. No:

13<sup>st</sup> November, 2017

**ETHICAL CLEARANCE**

**FEDERALWIDE ASSURANCE FWA 00001824**      **IRB 00001276**  
**NMIMR-IRB CPN 017/17-18**      **IORG 0000908**

On 13<sup>st</sup> November, 2017, the Noguchi Memorial Institute for Medical Research (NMIMR) Institutional Review Board (IRB) at a full board meeting reviewed and approved your protocol titled:

**TITLE OF PROTOCOL**      :      **Exploring Factors that Influence Resilience among Women with Breast Cancer who Received chemotherapy In the Accra Metropolis.**

**PRINCIPAL INVESTIGATOR**      :      **Gbande Sulleh M.Phil Cand.**

Please note that a final review report must be submitted to the Board at the completion of the study. Your research records may be audited at any time during or after the implementation.

Any modification of this research project must be submitted to the IRB for review and approval prior to implementation.

Please report all serious adverse events related to this study to NMIMR-IRB within seven days verbally and fourteen days in writing.

This certificate is valid till 12<sup>th</sup> November, 2018. You are to submit annual reports for continuing review.

Signature of Chair: .....  
Mrs. Chris Dadzie  
(NMIMR – IRB, Chair)

**Appendix G: Departmental Approval Letter**



**UNIVERSITY OF GHANA**  
**SCHOOL OF NURSING**

Ref. NoSON/A.12.....

October 11, 2017

The Chairman  
NMIMR – IRB  
P.O. Box LG 581  
Univ. of Ghana  
Legon.

Dear Sir/Madam,

**DEPARTMENTAL APPROVAL LETTER**

This is to introduce to you Gbande Sulleh, an M.Phil Year II student of the above School and to inform the Institutional Review Board of the approval of the thesis topic; **“Exploring Factors Influencing Resilience among Women with Breast Cancer in the Accra Metropolis”** by the department of Adult Health Nursing.

Thank you.

Yours faithfully,

  
Dr. Lydia Aziato  
SUPERVISOR

COLLEGE OF HEALTH SCIENCES

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• Tel: +233 (0) 302 513 250 / 0289 531 213 • Email: [son@chs.ug.edu.gh](mailto:son@chs.ug.edu.gh) • Website: [www.nursing.ug.edu.gh](http://www.nursing.ug.edu.gh)

### Appendix H: Map of Accra Ghana

