CHAPTER II

Review of Literature

Overview:

Breast cancer is a significant health problem worldwide, and a complex disease both physically and psychologically **(WHO, 2005)**. Dealing with the many challenges relating to a diagnosis of breast cancer, such as lengthy treatments and trying to combine recovery with family and work commitments can have a significant and negative impact on women, following diagnosis of breast cancer an individual's quality of life can be challenged physically, psychologically and functionally. **(Fallowfield 2002; Schultz, Klein, Beck, *et. al.,* 2005; Spagnola, Zabora, Brintzenhofe, *et. al.*, 2003)**.

Breast cancer in Egypt is the most common type of cancer, it accounts for approximately 38% of reported malignancies among Egyptian women, **(Reynolds, 2004)**. In the year 2009 up to date the **Egyptian National Cancer Institute** (NCI) in Egypt reported that the incidence of breast cancer represented 25% of all newly diagnosed malignancies Also, it was responsible for nearly 105% of all cancer deaths. Similarly, **(Mousavi, 2007)**, reported that breast cancer accounted for 25.5% of all female cancers, most of them are between 40-49 year old and 30% are under 30 year old.

In addition, (**Manning, 2004),** stated that breast cancer incidence has increased and it is seriously alarmingly women of all ages, and negatively impact their interpersonal marital and sexual relationships. Latest statistics estimated almost 230,480 new cases of the invasive breast cancer occurring among women during 2011 and about 2,140 new

cases in men. For the year 2012, almost 39,970 deaths due to breast cancer are expected along with 226,870 new cases **(American Cancer Society, 2011).**

Breast cancer means dreams canceled and lives rearranged, it affects not only the individual but the lives of their partners, spouses, children, friends, and others in their social network, (**Kayser, Watson & Andrade, 2007).** Diagnosis of breast cancer can cause serious psychological problems due to many factors such as; uncertainty in treatment; physical symptoms; fear of recurrence and death; changes in the women's personality, body image and sexual life, difficulties in daily activities, family problems and lack of support **(Abasher, 2009; Anagnostopoulos & Myrgianni, 2009; Ashing, Padilla, & Bohorquez, 2006; Dizon, 2009)**.

The diagnosis of breast cancer is threatening on many levels. Most obvious are the fact that the patient's life is placed in jeopardy by the disease and the fact that surgical intervention for the disease is disfiguring. The patient not only has to cope with the blow to her femininity, but also with the constant reminder of the potentially life-threatening disease **(Yasmin, 2005)**.

Treatment is required to reduce morbidity and mortality outcomes from cancer; however, the diagnosis and treatment of cancer influence the physiological, psychological, and sexual dimensions of sexuality, and changes in sexuality decrease patients' quality of life **(Tierney, 2008)**.

Mastectomy is the Main choice for Treatment of breast cancer:

Mastectomy has become a frequently employed treatment method for breast cancer, it is an essential but disfiguring operation in cancer treatment, **(Shameem, Cheng & Fong, 2008)**. Mastectomy is a surgery to remove the whole breast in order to treat breast cancer **(American Cancer Society, 2013)**.

Moreover, mastectomy produce a number of different side effects with regard to body image, breast surgery involving partial or complete loss of one or both breasts may result in poorly aligned breasts and breast asymmetry, extensive scarring and alteration to breast and or nipple sensation, need for a breast prosthesis, possible changes to limb mobility and lymphoedema **(Vadivelu, Schreck, Lopez, *et. al.*, 2008 ; Kadela, Schootman & Aft, 2011).**

Types of mastectomy:

1) **Total mastectomy**: (also called simple mastectomy) remove the breast, some of the breast skin and the nipple, but not the underarm lymph node.

2) **Radical mastectomy**: This operation was developed by Halsted in the late 19th century, it involves removing the breast, skin and fat, pectorals major and minor muscles of the chest, and all the lymph nodes under the arm and it is the most disfiguring breast cancer surgery **(Iglehart & Kaelin, 2001)**.

3) **Modified radical mastectomy** in which the pectorals muscles are not removed but all other aspects of radical mastectomy are retained **(Shons and Cox, 2001).**

4) **Prophylactic mastectomy:** performed on women at high risk for developing breast cancer, they choose to remove. These women often have had family members diagnosed with breast cancer. The removal of the healthy breast(s) is performed before cancer is found **(Morrow & Mehrara, 2009).**

Despite the technical advances, mastectomy continues to be practiced, and several authors assert that there is 40% of breast cancer cases in which it is still done, this is due to various reasons (size or position of the tumors, anticipating a bad cosmetic result, small breast, multifocal tumor, a woman's request, etc.) **(Malata& Intosh, 2000)**.

Although this operation may be done, sometimes an immediate reconstructive surgery of the breast is performed. This technique, becoming more and more popular in recent years, tries to preserve the breast with its natural appearance in affected women. In order to achieve that, some resources and coordination in medical teams are necessary, what unfortunately is not always the case. We sometimes witness situations in which these favorable conditions are not given, and we are in the presence of a woman with a lack of her breast who shows psychological disorders that can be noticeable (**Malata, *et. al.*, 2000; Brandberg, 2000)**.

Mastectomy may be a source of crisis threatening a woman's life as well as womanhood. Regardless of the latest major developments in the early diagnosis and treatment of cancer the fact that breast cancer treatment is a long and expensive process, that it may cause the loss of an organ, that it may spread to other organs and it may cause death are all together bringing about severe psycho-social problems which not only

affect the woman but also the husband and kids **(Forbair, Stewart, Chang, *et. al.*, 2006)**.

In same line, mastectomy has a character that resonates about mutilating self-image, sexuality and performance of roles of women in society, result in causing a painful reality for women **(Coelho, Sampaio, Pereira, *et. al.*, 2010).** Qualitative studies in breast and its treatment have highlighted women's concerns in relation to femininity, body image, fears of sexual relations, social function, role function and the importance of relations with the woman's partner **(Bruner & Boyd, 1998; Stead, 2004)**.

Moreover, mastectomy can influence the physical, psychological and social aspects of the person. Following mastectomy, the patient is probably to suffer from pain, fatigue, body-image alteration, stress or depression, and self-confidence decrease **(Harmer, 2000)**. It is also likely to the patient to become deeply dependent on others, as a result of undergoing mastectomy, change in occupational status is another aftermath which may happen, such a change has the potential to affect the relationship between patient and her family or society **(Kraus, 1999)**.

Furthermore mastectomy produces a significant negative effect on a woman's body image, self-confidence, self-esteem, emotional status and relationship and sexual life, the mastectomy patient's role in social, sexual and interpersonal situations may be altered in various ways after surgery, a woman must learn how to cope not only with herself but also with the reactions of others, especially her male counterpart, to her surgery. The absence of a breast and the importance attached with body image may elicit various reactions from others, especially the spouse, which have to be dealt with **(Taib, Yip, Ibrahim, *et al.*, 2007)**.

Mastectomy also cause severe side effects include fatigue, early menopause, hot flashes, dyspareunia, mood swings, lowered libido, and vaginal dryness in addition to alterations in body image related to surgical interventions **(Huber, Ramnarace, & Caffrey, 2006).**

Breast and genitals are erogenous zones for women sexuality that provide sexual arousal when touched **(Gulseren and Aysun, 2011).**The breasts and nipples are also sources of sexual pleasure for many women. Touching the breasts is a common part of foreplay in our culture. For many women, breast stimulation adds to sexual excitement, mastectomy can interfere with pleasure from breast caressing **(Chung & Sacchini, 2008)**.

After a mastectomy, the whole breast is gone, some women still enjoy being stroked around the area of the healed scar, others dislike being touched there and may no longer even enjoy being touched on the remaining breast and nipple. Some women who have had a mastectomy may feel self-conscious in sex positions where the area of the missing breast is more visible **(Smith, Buchholz, Giordano, *et al.*, 2013).**

In addition, some women who underwent mastectomy did not want their breasts to be touched and some husbands did not want to touch their woman's breasts, so that, couples experimented different sexual problems, which were linked to a general loss of a sense of femininity of women after the surgical procedure. Moreover, some women report feeling less sexual attraction after mastectomy. **(Lucila, Dândara, Fernanda, *et. al.*, 2013)**. Mastectomy can cause a complete loss of sensation in the chest area from asexual function perspective **(Knobf, 2006). In the same line, Gaughey, (2006)** describes results in which 94.1% of women who

underwent mastectomy had a reduction in breast sensitivity and 82.3% significantly lost touch sensation in her breasts.

Generally, The breast is considered as an attribute of femininity, maternity and sexuality therefore, its loss as a remedy for breast cancer might be followed by some sort of affection of quality of life **(Skrzypulec, Tobor, Drosdzol , *et. al.*, 2009).**

Moreover, the breast is a part of the female "body image," being appreciated from the erogenous point of view, which is often the expression of her own worth and power, mastectomy, as a breast removal, involves the loss of this worthy image, which provokes the fracture of the "corporal imaginary" (a discontinuity in the sexual body schema), the loss of the breast is experienced by women as an attack to the body image worrying about aesthetic features from that moment, which provokes that she does not feel beautiful, This leads to a fall in the self-esteem ("non-self-esteemed" feelings) that drive the woman not to like herself or even to reject herself, leading her to an attitude of introversion, shyness, insecurity, confinement, and social inhibition, which did not exist before the surgery, this reasons lead to loss of sexual desire, often suffering a deterioration in their relationships; this can be related to the fact that they are ashamed of their damaged body image **(García & López, 2011)**.

Similarly, **Farooq, (2005)** added that removal of the breast not only alters physical appearances but also deprives a woman of a basic way of relating to others as a wife and a mother**.** In other words**, Crouch & Kenzie (2000)**, entitled the social realities of loss and suffering following mastectomy and revealed that patients undergone mastectomy suffer from feeling of not having body balance which is a major factor in physical attractiveness, and lack of mental peace as a key indicator in

mental attractiveness because of fear from disease recurrence and death hazard. Both factors result in reduction of quality of life to a great extent.

In other words, Mastectomy may make a woman feel unattractive and create negative body image concerns, it destroys the body image and the sense of the body's naturalness and wholeness, even beauty. The individual feels a sense of bereavement, similar to the feelings at the loss of a close and dearly loved friend or relative **(Gulseren & Aysun, 2011).** A recent study in women who had undergone mastectomy demonstrated that higher majority felt less feminine to a minimal degree, and a smaller minority experienced more serious body image concerns **(Hopwood, Lee, Shenton, *et. al.*, 2000)**.

Body image, as a component of self-concept, include feeling feminine and attractive enjoying one's body as a symbol of social expression, it relate to one's feelings, perceptions, and attitudes towards one's physical self, appearance, functionality body image and sexual function may be influenced by medical factors. It also involves the evaluation of one's body, appearance and functioning and refers to the person's conception of, and feelings about her body, its form, size, shape and the way it fits society's norms, the change in the body image is a problem which is caused in most cancer cases due to a change in the body followed by the disease or treatment **(National Breast Cancer Centre, 2000).**

A high personal investment in one's body image can act as a source of self-worth, because women generally have a focus on body image-related evaluation and investment, a diagnosis of breast cancer is likely to further exacerbate this propensity **(Sarwer & Cash, 2008)**.

Indeed, the loss of a breast is inherently linked to a woman's identity, sexuality and sense of self **(Manderson & Stirling, 2007)** with approximately one-third of breast cancer survivors expressing distress that is directly related to disturbed body image after successful cancer treatment particularly younger women. **(Fobair, *et. al.*, 2006)**

Additionally, body image is a critical dimension of sexual identity, it may modulate sexual function and response through the complex physical and emotional interactions during sexual activity, and may be modified in turn by the quality of past and current sexual experiences. Mastectomy affects the body image in a negative way and can cause various problems in intimate relationships and sexual life **(Avis, Crawford & Manuel, 2004; Fobair, *et. al.*, 2006).**

Body image includes two dimensions:

1) **Cognitive**, including the patient's assessment from her body size.
2) **Emotional**/ imaginative, including the patient's imagination of her body form. **(Esmaili, Jila, Hamid, *et. al.*, 2010)**.

The body image consists of four important parts:

1) Perception, i.e. the way we construct our body.
2) Cognition, i.e. how we think about our body.
3) Social, i.e. our body image is something we share with other people**.**
4) Ecstatic, i.e. the experience of the body as something beautiful**. (Price, 1998).**

The human's body is the physical location where sex, sexuality, race, class, and age intersect, are personified and practiced **(Williams & Stein, 2002**), People diagnosed with cancer constitute one group who face the danger of having their body image altered **(Chamberlain, 2001; Frank, Bahn, Stein, *et. al.*, 2007)**.

Previous studies have also suggested that body image is an important concern for breast cancer survivors. **(Petronis, Carver, Antoni, *et. al.*, 2003; Ashing, Padilla, & Bohorquez, 2006),** so that when the body appearance is changed by disease, surgery, or social stigma, people's individual coping strategies and social adjustments for dealing with these changes are insufficient, an altered body image exists **(Price, 1998),** and this changes have particular connection with women's sexuality and affect couples sexuality **(Ganz, Greendale, Petersen, *et. al.*, 2003; Lintz, Moynihan, Steginga, e*t. al.*, 2003).**

The bodily changes that occur following mastectomy can result in patients losing positive image in their own body, this Negative image of body include dissatisfaction with appearance, embarrassment in exposing her body, reluctance to see her naked body, discomfort in showing scar and feelings of diminished sexual attractiveness, this had an impact on women's relationships with partners, making them hesitant to initiate physical contact, and changed behavior in relation to exposing their body to partners and family **(Landmark & Wahl, 2002; Bailey, Pérez &Aft, 2009).**

Moreover, various studies have suggested that the women who experience greatest dissatisfaction with their body image after breast cancer treatment are those who believe their breasts are important to their femininity and attractiveness, who value their physical appearance and who consider themselves highly feminine (**Petronis, *et al*, 2003).**

Mastectomy significantly affects the woman's degree of satisfaction with her body and with herself after the operation, The majority of women find the loss of a breast extremely distressing. Many women speak of feeling "mutilated" or "incomplete" and their self-image as a woman may be challenged, A woman undergo mastectomy has to deal with the loss of a body part, which may be important to her femininity and sexuality, mastectomized women being those with the poorer body image had lower self-esteem **(Yurec, Farrar & Andersen, 2000)**.

On the other hand **(Dahl, Reinertsen, Nesvold, *et. al.*, 2010)** reported that it was noticed that 91% possessed a better body image over time. However, it was still a considerable number of women who had persistent negative body image over three years.

Furthermore, body image reflects a direct personal perception and self-appraisal of one's physical appearance, whereby negative thoughts and feelings related to one's body indicate a disturbance of body image and lead to dissatisfaction with one's self **(Stokes &Frederick, 2003).**

Body image is conceived, moreover, as part of self-concept which can be understood as the set of a person's perceptions or references about oneself, and includes appraisals of behaviors, abilities and external appearance, self esteem is another aspect of self-concept, referring to a positive or negative attitude and feeling toward oneself, based on the

assessment of one's own characteristics, and includes feelings of satisfaction with oneself, as regards our position here, we understand body image as the woman's appraisal, both cognitive and emotional of her body at given moment. For its part, self-esteem refers to a person's positive and negative appraisals of themselves **(julia, dimitra, josé, *et. al.*, 2008).**

Self-esteem refers to an evaluation of the self that reflects the extent to which individuals like themselves and an important part of daily experiences that reflects interactions and feedback from others such that feelings of acceptance often lead to feelings of value and worth **(Zeigler, Masri, Smith, *et. al.*, 2013).** Self-esteem also refer to the value and the competence of the individual and the feeling, appreciation and consideration that the person has about herself; how much she likes herself, how she sees herself and what she thinks of herself. **(Dini, Quaresma & Ferreira, 2004)**. Moreover self-esteem constitutes the key to the success or failure of a person and to understanding him/herself and others. It also reflects the ability to cope with life's challenges, to respect and defend one's own interests and requirements. Thus, the way one feels about oneself crucially affects all aspects of the life experiences **(Terra, 2010).**

A woman's identity, her perception of herself as a woman, her femininity, and her self-confidence are closely bound to her body image, so that, individuals who believe that they are attractive tend to experience higher levels of self-esteem, whereas the association between self-esteem and perceptions of attractiveness is much weaker for those who do not base their feelings of self-worth on their appearance. **(Crocker, Luhtanen, Cooper, *et al*, 2003).** Moreover, it should not be overlooked that, in Western societies, a woman's physical image constitutes an

important part of how society appraises her, and is a substantial component of her identity **(Sebastian, Bueno& Mateos, 2002).**

The loss of breast will probably be influenced by the extent to which the woman attributes self-worth and acceptability to her external looks and body appearance. In such traditional societies where women relate to others (especially men) through physical attractiveness, feelings of self-rejection may develop profoundly when they perceive their bodies as having been disfigured by mastectomy, the socialization process reinforces feminine role and status as "sex objects" and great importance is attached to a woman's body image, thus, mutilation or loss of such an important organ especially related with their femininity is perceived as an assault on their womanhood and their social identity **(Yasmin, 2005).**

Women who undergo mastectomy face loss of roles in terms of responsibility on the home as well as professional grounds. They also have to deal with swinging relationships and breakdowns. They have immediate dependency issues which adversely affects their self-esteem and marital status, a change in the body condition also leads to changes in the self-perception and self-esteem due to changes in the appearance which women come across as the treatment procedure progresses, as a woman feels unattractive and lacks confidence about her appearance post surgery, she begins to lose her sexuality and her confidence in confiding to her husband **(Madhumanti & Anuradha, 2014).**

In this respect, the woman's breast as a symbol of femininity and as a reinforcement for the desire for a whole and perfect body, it is strongly associated with the sphere of sexuality and physical attractiveness; it is an element that is valued and appreciated for its sexual content and erotic qualities and for being a source of pleasure, the breast

is also associated with maternity and lactation, and for some women, suffering the illness means renouncing their desire to have children, so that, there was a decrease in conjugal relations (79%) and an increase in divorce rate and separation at six months after surgery **(Odigie, Tanaka, Yusufu, *et al*, 2010)**.

Mastectomy among women who undergo this surgery after diagnosed with breast cancer not only adversely affects their own perception about body image but also may lead to decrease in their sexuality and the desire to have sexual intercourse with their husbands, the majority of the husbands isolated their wives and separated or got divorced due to the anxiety and tension that they too might catch some kind of disease through sexual intercourse with the wives who had breast cancer, Loss of breast is compared to a stigma in the society which becomes unmanageable by the women who undergo this loss **(Avdin & Kumcagiz , 2011).**

Additionally, mastectomy is an elaborate form of surgery which is followed by distortions in the body image caused due to the amputation of the breast to cure breast cancer, which in turn becomes fatal for marital partnership among two people, this loss of an important organ from the body results in lack of self-confidence, loss of self-fulfillment especially experiencing motherhood. Mastectomy does not mean disability in any form as the procedure involves breast amputation but rather it denotes disfigurement in the mental sense, it causes significant distress among married couple as well as disturbs marital adjustment **(Madhumanti & Anuradha, 2014).**

Namely, sexuality is properly understood to encompass body image, self-esteem, mood, support and sense of emotional connection and intimacy. It is an important and integral part of being human throughout life. It plays a central role in our personality and in how we meet existential threats throughout life **(Burwell, Case, Kaelin, *et al*, 2006)**.

Junkin, Beitz & Colwell (2005) also stated that sexuality is a complex, multidimensional phenomenon that incorporates biological, psychological, and behavioral parts. Biologic dimensions include the reproductive organs, and physical appearance; psychological dimensions include body image, self-esteem, and self-concept; and social aspects include gender roles, cultural expectations, and stereotypes. **Herson, Hart & Gordon, (1999)** added that emotional satisfaction, reproduction, physical attractiveness to others, and the formation of relationships are all aspects of sexuality. Sexuality includes feelings about one's body, the need for touch, interest in sexual activity, communication of one's sexual needs to a partner, and the ability to engage in satisfying sexual activities

Moreover, sexuality is a complex and subjective concept that changes over time as a person ages and gains experience, it is not just the state of being physically able to perform a sex act or to conceive a child. Rather, sexuality can include body image (how someone sees herself physically and perceives her overall health and sexuality), sexual response (interest, function, and satisfaction), sexual roles, and relationships, sexuality is a personal expression of one's self and one's relationship with others and refers to a core dimension of being human which includes sex, gender, sexual, and gender identity, sexual orientation, eroticism, emotional attachment/love, and reproduction. It is experienced or expressed in thoughts, fantasies, desires, beliefs, attitudes, values, activities, practices, roles, relationships, **(Hordern, 2000)**.

Furthermore, sexuality is a result of the interplay of biological, psychological, socio-economic, cultural, ethical, and religious/spiritual factors. While sexuality can include all of these aspects, not all of these dimensions need to be experienced or expressed. However, in sum, sexuality is experienced and expressed in all that we are, what we feel, think, and do**. (World Health Organization, Pan American Health Organization & World Association for Sexology, 2000).** Sexuality has been affected by any chronic disease. The chronic disease is not only characterized by somatic, and physical symptoms, but often by accompanying psychological or relational distress or psychosocial pressures which lead to sexual problems more than physical symptoms of the chronic disease **(Verschuren, Enzlin, Dijkstra, *et. al.*, 2010**).

In other words, sexuality is an important aspect of physical, psychological and social life, increasing life quality and nurturing the individuals self development, and is affected by the individuals body perception, sexual reactions, roles and relationships. The stress factors throughout the disease process and the side effects of treatment can affect the patient's intimate and sexual relationship with the spouse in a negative way and cause sexual dysfunctions **(Arıkan, 2000; Pelusi, 2006)**.

To understand the difficulties women are experiencing sexually, it is useful to have a basic understanding of the normal human sexual response cycle:

Normal human sexual response cycle:

1) Desire/interest:

The "normal" or "ideal" sexual response cycle begins with a person's innate sense of sexual interest or desire. It is therefore important to realize that lack of desire is the most common sexual problem experienced by cancer patients.

2) **Arousal**:

When we become sexually aroused, many changes begin to happen in our body. Many of our blood vessels begin to narrow in a process called vasoconstriction, and our heart rate increases and more blood flows into our sex organs. As arousal increases, these processes become stronger.

3) Readiness (for penetration):

The man's penis becomes erect as blood flows into the penis and the walls of the vagina produce a fluid which lubricates the vagina, making it wet. These processes of erection and lubrication help our bodies to get ready for penetration. The consequences of cancer treatments frequently interfere with people's natural ability to reach this physical readiness.

4) Orgasm & resolution:

During orgasm lots of muscles all over our body muscle contract rhythmically, including those in our sex organs. Our heart rate and

breathing also change and we may experience feelings of intense pleasure. In men, orgasm is accompanied by the ejaculation of semen. Orgasm is followed by a period of relaxation when all systems in the body return to their normal state. After orgasm, men experience the so-called "refractory period".

5) Satisfaction:

It is common to think of penetrative intercourse and orgasm as ultimate goal posts and measures of our own or our partner's satisfaction.**(Brandenburg,2010)**.

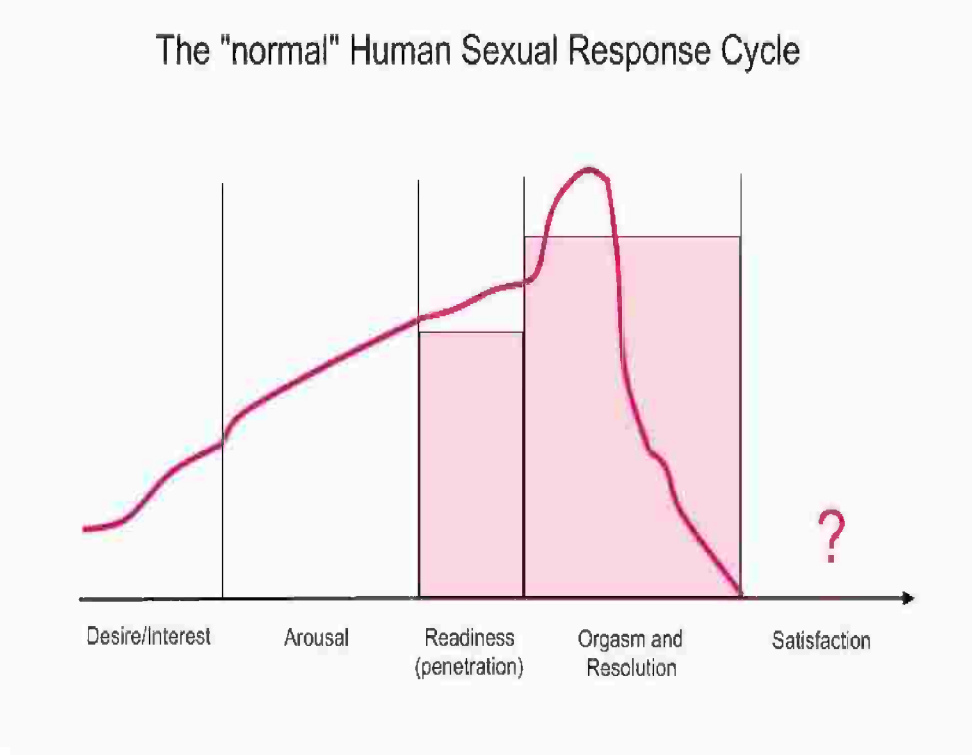


Figure (1) Normal human sexual response cycle (Brandenburg, 2010).

Sexual problems are common after breast cancer treatment. Sexual dysfunction involves psychological, physical, interrelation, and physiological issues. Approximately 40% of women have sexual concerns and 12% report a distressing sexual problem **(Burwell, *et al*, 2006)**.

Sexual dysfunctions are characterized by the disturbances in sexual desire and in the psycho physiological changes associated with the sexual response cycle in women. It is more prevalent in women (43%) as compared to men (31%), and is associated with various demographic characteristics including age, race and education. Education is negatively associated with sexual dysfunction, Women who have graduated from college are roughly half as likely to experience low sexual desire, problems achieving orgasm, sexual pain and sexual anxiety as women who have not graduated from high school **(Schover, 2008).**

Generally**, (Dizon, 2009)** stated that sexual dysfunction affects up to 90% of women treated for breast cancer with some reports suggesting that nearly all women have some form of sexual complaints following mastectomy. There may be various reasons why sex may not be enjoyable after breast cancer diagnosis. There can be emotional and physical reasons. Cancer is stressful for many to manage from a financial, family relation and employment perspective. Day to day life for many women is filled with plenty of stress, but when the diagnosis of cancer and its treatments are added to this mix, the stress can be overwhelming. This stress can interfere with one even considering having an intimate relationship **(Martinez, 2008).**

Female sexual dysfunction after mastectomy may take several forms, including lack of sexual desire, impaired arousal, inability to achieve orgasm, pain with sexual activity, vaginal lubrication difficulties, dyspareunia, inhibited orgasmic satisfaction, lack of interest in partner, brevity of intercourse and vaginismus or a combination of these issues, sexual problems as a result of mastectomy have a negative impact on measures of quality of life, (decrease in the libido is related to the fact that the woman does not feel themselves to be attractive once the breast is removed, being bald, with no eyebrows, with no eyelashes, and more weight), she is defaced, she has stopped being beautiful, she does not feel enough capacity for seducing and she does not think her body is attractive, it will be difficult for her to be able to provoke the desire in a man**(Granz, Desmond & Leedham, 2002)**.

Dyspareunia as a result of vaginal dryness is more prevalent in young breast cancer survivors. In fact, vaginal dryness is one of the most important predictors of sexual dysfunction for women with breast cancer. It is associated with a lack of sexual interest, an inability to relax and enjoy sex, difficulty becoming aroused, and difficulty achieving orgasm, younger women complain of dyspareunia as a result of vaginal dryness more often than women undergoing natural menopause **(Ganz, *et al*, 2003;Gupta, Sturdee & Palin, 2006).**

One study reported that, at three years' post surgery, 47% of women reported being not interested in sex, 48% had difficulty becoming aroused, 64% had lubrication difficulties and 52% had difficulty reaching orgasm (**David, Kate, Karine, *et. al.*, 2004**), some studies also reported that sexual harmony is negatively affected following operation in women with breast cancer **(Avis, *et. al.*, 2004, Budin, 2005)**.

Couples experimented different sexual problems, which were linked to a general loss of a sense of femininity of women after mastectomy, some women report feeling less sexual attraction after mastectomy. Negative body image, sexual dysfunction affect dyadic relationship and sexual intercourse and it is equally important to the women and their partners **(Zimmerman, Scott & Heinrichs, 2009).**

Walsh, Manual, & Avis (2005) study of younger breast cancer survivors' relationships found four major themes that affected their relationship with their partner. They included, increase closeness and intimacy, communication avoidance, the separation or termination of the relationship, problems related to sexuality.

The most common sexual side effects stem from damage to a woman's feelings of attractiveness. In our culture, we are taught to view breasts as a basic part of beauty, femininity and sexuality. If the breast has been removed, a woman may be insecure about whether her partner will accept her and find her sexually pleasing **(Avis, *et al*, 2005).**

In the study of Psychological impact after mastectomy among Nepalese women (**Shrestha , 2012)** assess the Psychosexual impact of mastectomy and the relationship of this women with their husbands and found out that seven women from ten women did not feel comfortable to share their sexual relationship. Two respondents said they felt uncomfortable due to emptiness in chest. One woman expressed problem regarding sexual relationship and less desire to have sex.

Yet, sexuality is affected by cancer treatment mainly during the first year of survivorship but as time pass, women are less anxious of disease prognosis and hence their sexual life become normal again **(Dragisic & Milad, 2004; Abasher, 2009). (Brandberg et al, 2008**) also

stated that sexual pleasure was not affected by mastectomy and most of the patients had more activity and satisfaction gradually over time.

Some good news from recent research is that within a year after their surgery, most women with early-stage breast cancer have good emotional adjustment and sexual satisfaction. They report a quality of life similar to women who never had cancer. **(American Cancer Society, 2013).**

Other Psychological problems associated with breast cancer diagnosis and mastectomy and affect body image, self esteem and quality of sexual life:

When a person is told that she has cancer, the diagnosis affects not only the patient, but their family and friends. The breast cancer patient may feel scared, uncertain or angry about the unwanted changes cancer is bringing into her life and her family. Once a person hears the word "cancer", it is not uncommon for that person to shut down mentally. The patient may feel numb or confused, After the diagnoses of cancer, the person may be feeling a mix of emotions like shock, disbelief, fear, anxiety, guilt, sadness, grief, depression and anger. Each person may experience some or all of these feelings. Each individual will handle them in a different way. The first emotion a person may encompass is a shock, because no person is ready to hear that he or she has cancer **(Eyre, Lange, & Morris, 2002)**.

There are many psychological problems associated with breast cancer and mastectomy.

- **Depression:**

Approximately 25% of women may be affected by depression during their cancer experience **(Miller & Massie, 2006).** Previous studies have found higher rates of depression among women with breast or gynecologic cancer **(Meyerowitz, Formenti & Ell, 2000; Ell, Sanchez & Vourlekis, 2005; Chen & Zheng, 2009).** Nearly 50% of the women with breast cancer show depressive and anxiety symptoms in the first year after diagnosis, this has a major impact on patients' lives. **(Oudsten, Heck & Steeg, 2009)**

Similarly, **(Enache, 2012),** concluded that depression for patients who underwent mastectomy surgery derives from several aspects. The first and most important aspect is the change in body structure. The breast removal is equivalent to the loss of femininity and shapes the sense of inferiority, prompts the feeling of embarrassment, isolation from society and even isolation from family. Unfortunately, these results in family dramas and often times to an increased distance between the patient and her partner.

Another source of depression is the loss of hair due to the treatment, which emphasizes the aesthetic sense of decay and prompts the desire for social isolation. Additionally, due to the chemotherapy the patients lose their appetite and can become anorexic. It may present with guilt, worthlessness, hopelessness, lowered self esteem, social withdrawal or suicidal preoccupation **(Nauman, Waqar, Mohammad, *et. al.,* 2010).**

However, depression is often develop after oncology surgery, contributes to the deterioration of women's sexuality and spouse relation **(Bayram & Şahin, 2008)**, depressed people negatively distort their body image and sexual function. Depression is significantly associated with lower sexual desire and arousal difficulties **(Kantar & Sevil, 2004; Zimmermann, Scott & Heinrichs, 2009).**

- **Anxiety:**

Anxiety is a universal phenomenon and an emotional reality almost all surgical patients experience, which can influence their treatment response and negatively affect post-operative recovery. This feeling, in addition to patients' fear of the surgery, represents a bothersome feeling of discomfort or dread, accompanied by an autonomous response, that is, a feeling of apprehension caused by the anticipation of danger **(Yasmin, 2005**). Fear of recurrence of cancer and doubts about the success of the surgery may also cause high anxiety in patients undergoing mastectomy, lack of education and awareness may cause increased anxiety in the patients at the loss of a vital feminine organ, additionally, doubts about one's appearance and desirability as a sexual partner are factors that may play an important role in development of anxiety.

- **Coping and adjustment:**

Adaptive and maladaptive coping styles have been investigated in relation to the body image concerns and adjustment of people with disfigurements, though much of the evidence is anecdotal **(Moss, 1997).** Until recently, it has been assumed that denial or an avoidant coping style is inadvisable, as fear of the particular situation is exacerbated and the development of more effective strategies postponed. However,

(**Robinson, Rumsey& Partridge, 1996**) have suggested that rather than focusing on supposedly maladaptive coping strategies, interventions should focus on broadening the range of skills in a person's repertoire, thus increasing the flexibility with which people can respond to the varied and often unpredictable demands of social situations.

Additionally, **willmoth, 2001** stated that women's adjustment to changes in body image and sexuality changes over time. While most women do adjust, some will experience long term morbidity with regard to body image and sexuality. Although the impact on sexual functioning one year post surgery is reported as limited, problems with body image, sexual interest and functioning had emerged in follow up studies conducted two to three years later. This delayed onset has important implications for being able to offer women timely assessment and intervention. Early studies have also recognized that the quality of a woman's sexual relationship prior to surgery will influence post-operative sexual adjustment. Thus, spouses who indicated lower pre-mastectomy sexual functioning report decreased sexual functioning post-operatively. However, in contrast with desire for sexual intercourse, many women were observed to seek greater intimacy within their relationship following the cancer diagnosis than they did previously.

- **Fear of recurrence of the disease**:

After surgery all the respondents said they were self-conscious regarding their altered body image. They reported the problems like depression, anxiety, uncertainty about the future, appearance and fear of recurrent of disease and metastasis and distress from surgery, after mastectomy one of the greatest fears of patients is the feeling of rejection

or dislike by their husband. These feelings affect the marital affairs of patients negatively **(Ilknur, & Hatice, 2011)**.

- **Increased faith in religion**:

All the respondents expressed that their faith in God had become stronger because they thought their life is in God's hand. As they described how dramatically their lives and meaning of life and thoughts had been altered due to cancer. They also reported that they felt guilty and blamed themselves as a punishment from previous life **(Shrestha, 2012).**

- **Change in intimacy or social isolation**:

Social and family stigma was another problem. After the Chemotherapy and Radiotherapy, women shared their problems such as: hair loss, nausea, vomiting and tiredness, etc which lead them to face difficulty and humiliation. This made them to avoid social gathering for almost one year. They were afraid that if someone asks about their surgery, they will feel embarrassed **(Shrestha, 2012)**.

Specific type of psychological distress resulting from radical surgery include clinically significant mood disturbances, decreased sexual interest and satisfaction, increased self consciousness, negative changes in body image and fear about recurrence, in addition to all of this psychological problems, quality of life of female is also adversely affected because mastectomy is not simply a scar; but it is considered an amputation **(Pawan, Amol, Arjun, *et. al.*, 2011)**.

Nursing role:

Nurses play crucial roles in understanding and supporting the patients in their psychological, family, social and even sexual lives after surgery as the patients need advice before and after mastectomy and accepting treatment procedures and adaptation to their new conditions.

Assessing and being sensitive to the patient's emotional health is essential to nursing care and effective teaching. To make the best of your limited time with her, start by asking about her concerns and fears, and find out if she has questions. Acknowledge that it's normal to feel overwhelmed and fearful and assure her that the team will be there to help her. Assess her learning needs and readiness to learn before you begin teaching. Keep in mind that patients (and their support persons) may have different information-seeking behaviors. Some won't ask questions and want the healthcare providers to tell them what they need to know. Others want to know many details, such as recurrence and survival rates. They may ask "what if" questions, which may cause needless anxiety about a situation that may never occur **(Carolyn Weaver, 2009).**

Therefore, the nursing team must establish therapeutic communication with the women, this aims to provide an affective and conscious relationship between them, in order to assist the women in coping with stress, to exist with other people and to adjust to what cannot be changed. This bond, associated with the access to information, induces the women to speak about their discomforts, anxieties and fears which make the process of coping with the disease less stressful and exhausting **(Santos, Sousa, Alves, *et. al.*, 2010)**.

An important part of postoperative care is helping the patient cope with emotions related to breast loss and change in body image. Encourage patient to express how she's really feeling and tell her about the availability of support groups and the benefit of talking with others who are either going through a similar experience or have already been through it. If patient has questions about future treatments or talks about a fear of dying, acknowledge her worries, provide information as applicable, and answer her questions to the best of your ability and comfort level **(Weaver, 2005).**

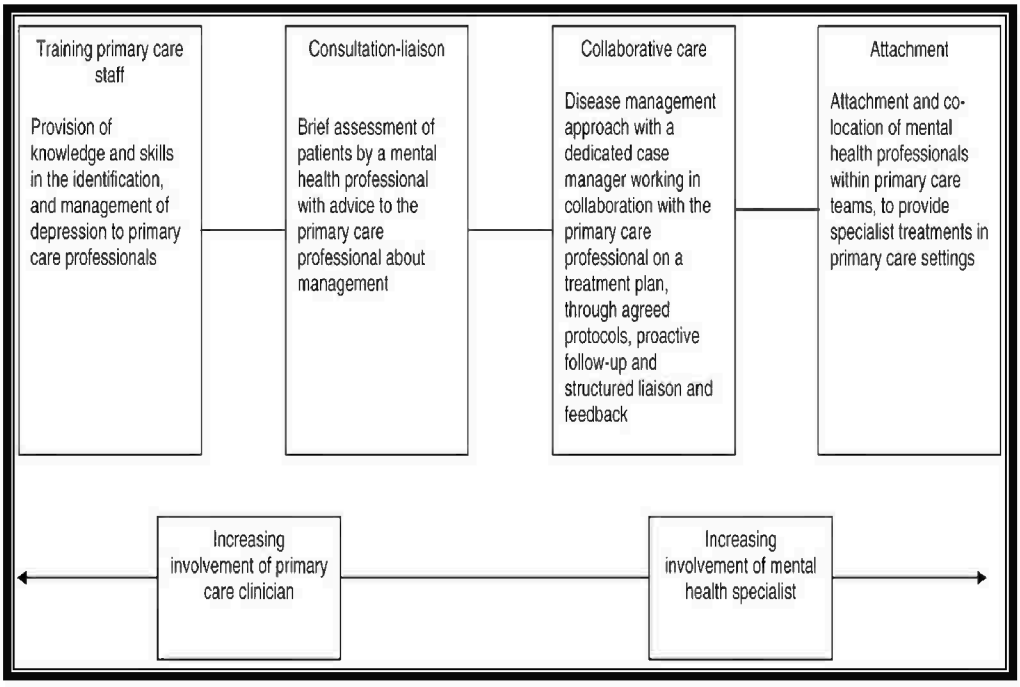
Nurses should discuss with these women the reconstruction surgery and its importance in improving her life. **(Al-Ghazal, Fallowfield L, & Blamey, 2000),** stated that women who had mastectomy with reconstruction had significantly less anxiety and depression, better body image, and higher self esteem than the mastectomy only group. Thus, women who have breast reconstruction may benefit in specific areas such as body image and sexuality, especially compared with women who undergo mastectomy only.

Psychiatric Liaison Nursing Role:

Liaison psychiatry is a recognized advanced practice subspecialty of psychiatric mental health nursing, has evolved over 4 decades in response to recognition of the importance of psycho-physiological interrelationships, and their impact on wellness, physical illness, and recovery. Increasingly, the psychiatric nursing community has emphasized the interplay of the mind, and body in wellness and illness in the context of an explosion in neurobiological knowledge **(Minarik & Neese, 2002).**

In other words, **Lozanoa & Lobo (2005)** mentioned that liaison psychiatry is to a good extent the answer from psychiatry to meet doctors' and nurses' demands. It is concerned with psychopathological problems in medical patients, such as cancer patients, organic mental disorders and co-morbidity; psychopathologies with serious somatic repercussions; adjustment disorders; triggered psychopathologies; and somatizations.

Additionally, **Cape, Whittington & Bower, (2010)** stated that consultation–liaison was defined as an intervention where patients were seen once or twice by a mental health professional for assessment (consultation), and advice about management (liaison), but where no treatment was provided by the mental health professional. Thus, the model is placed between 'education, and training', and 'collaborative care', and 'attachment' in terms of the degree of primary care, and specialist involvement in care (Figure 2).



Figure(2): Models of mental health care in primary care **(Cape, *et. al.*, 2010)**.

According to **Parsonage, Fossey & Tutty, (2012),** multi-disciplinary liaison psychiatry team providing a range of services for medical-surgical patients which include: early identification of mental health conditions; risk assessment; regular review during the patient's stay; management of disturbed or challenging behavior; advice on medication; participation in discharge planning; liaison with community-based mental health, and social care services to ensure continuing support, and rehabilitation after discharge; and education, and training of acute hospital staff.

Leentjens, Rundell, Wolcott, *et. al.*, (2011) reported that majority of patients need liaison psychiatric consultations will fall into one of the following six categories: (1) Patients with co-morbid psychiatric, and physical disorders complicating each others' management, (2) Patients with medically unexplained symptoms related to psycho-physiologic disorders or somatoform disorders, (3) Patients with psychiatric conditions that are the direct consequence of a general medical condition or its treatment, (4) Patients requiring diagnostic or therapeutic procedures that are only available in medical settings, or patients receiving electroconvulsive therapy, (5) Patients with attempted suicide, and deliberate self harm seen in the medical setting, (6) Patients with health behaviors, cognitive function, social situations, or personality traits that impede the effective treatment of their medical condition.

Accordingly, patients who come to dialysis centers routinely with frequent intervals need Psychiatric Consultation-Liaison Nursing (PCLN) activity protocols that offer psychiatric nurses the opportunity to improve the quality of attention given to the psychological needs of patients in the general hospital setting. **(Happell & Sharrock, 2002; Kocaman, 2005)**

These liaison activities include hemodialysis unit-based nursing education programs, patient education programs, participation in discharge planning, nursing care planning and/or health care team rounds, patient care conferences, and facilitation of patient, family, or staff nurse support groups **(Minarik & Neese, 2002).**

In other words, the scope of practice of psychiatric liaison nurse includes participation in the care of patients with psychiatric syndromes, signs and symptoms that occur in patients being cared for in outpatient, inpatient medical, surgical, pediatric, and obstetrical settings. This can be consultative, collaborative or integrated as a core feature of the care of patients being treated in the non-mental health setting **(Leentjens, *et. al.*, 2011)**.

Parsonage, *et. al.*, (2012) mentioned that training of hospital staff by a liaison psychiatrist for a number of reasons; first, training improves the ability of hospital staff to identify mental health conditions. Second, training improves the quality of care provided by acute hospital staff. Third, training increases the overall capacity of the hospital to manage patients with co-morbid physical and mental health problems. Finally, training can help to integrate mental health care into routine hospital practice, and promote awareness, and understanding of mental health problems among all staff working in the hospital, not just those with clinical responsibilities.

In the same way, **Aitken (2007)** emphasized that liaison psychiatry, and psychological nursing team should be able to: maximize access for general hospital patients to services for improving mental well-being, and treating mental disorder; provide mental health advice, and support to general hospital staff, patients, their families, and careers;

provide prompt, and expert assessment of mental health problems; provide effective, evidence based brief interventions, and treatments to reduce, and shorten distress, and suffering; contribute to educational programs for general hospital staff.

According to **Sharrock (2002),** PCLN process includes the following steps:

1) **Referral;** The referral was made by the nurse caring for the patient. The PCLN was requested to see the patient to help him with the anxiety or depressive episodes. The referring nurse also sought advice as to what she/he could do to help the patient. The referring nurse had raised the idea of a PCLN referral with the patient, and the latter indicated she was keen for some assistance.

2) **Assessment;** The initial assessment of the request took place with the general nurse initiating the referral. The PCLN decided to interview the patient directly given that she/he was receptive to the idea of assistance, and there were likely to be some straightforward and useful interventions that could readily be put into place.

3) **Interventions;**

- Assessment and monitoring of the patient via the staff: Details of the patient's history were obtained through discussion with staff, and through a review of the clinical file. The patient's progress was monitored through regular contact with the staff.

- Direct care of the family: the patient's family was accepting of support from the PCLN.

- Development of a care plan: The PCLN initiated a meeting with the treating team to ascertain their concerns, identify the care issues, and

develop a care plan. Part of the care plan included a rehabilitation agreement that was signed by the staff, and the patient.

- Education: Regular formal education sessions were initiated. These included an opportunity for staff to discuss and problem-solve the care issues in relation to the patient. Nursing, allied, and medical staff attended these sessions. Theoretical information on personality disorder, and its management, depression, suicide, drug, and alcohol abuse, and adjustment to disability, and illness was provided through formal education sessions. Written material was also provided.

- Advice and guidance: The PCLN was available during work hours to discuss issues of concern with staff. All the staff used this opportunity. It greatly assisted staff to keep the goals of rehabilitation in focus and maintain a consistent approach to the patient.