

# Factors Associated with Quality of Life among Women Undergoing Hormonal Therapy Post Mastectomy at Outpatients Clinics in El-Beheira Oncology Center

Nadia Mohammed Darder<sup>1</sup>, Wesam kamal Ali Farag<sup>2</sup>, Abeer Abdel Aziz Madian<sup>3</sup>

<sup>1</sup>Clinical Nursing Instructor at Community Health Nursing, Faculty of Nursing, Damanhour University.Egypt

<sup>2</sup>Lecturer of Obstetrics & Gynecological Nursing , Faculty of Nursing, Damanhour University. Egypt

<sup>3</sup>Professor of Community Health Nursing, Faculty of Nursing, Damanhour University. Egypt

DOI: <https://doi.org/10.5281/zenodo.6535624>

Published Date: 10-May-2022

---

**Abstract:** Background: Health is the major reference regarding quality of life ;when it comes to breast cancer in particular, the loss of abreast traumatically affects a women’s life, reflecting on her quality of life. Aim of this study is to identify factors associated with quality of life among women undergoing hormonal therapy post mastectomy at outpatient’s clinics in El-Beheira oncology center. Research design: a descriptive cross sectional research design. Settings: This study was carried out in hormonal therapy outpatient clinics in oncology center in EL-Beheira governorate. Subjects: this study was carried on a convenient sample of 200 women. Data collection tools: data were collected using two tools: women structured interview schedule and Quality of Life Assessment scale Sheet (WHOQOL-100).Results: the age of the studied women ranged from less than 30years to equal or less than 45 years with a Mean  $\pm$  SD(36.64  $\pm$  5.33) years. More than half of the studied women (57.5%) had fair quality of life while more than two fifths (42%) of them had poor quality of life. According to linear regression model for predictors of quality of life among women undergoing hormonal therapy post mastectomy : women's education, monthly income, using of family planning methods, stage (III) of breast cancer and the presence of sores in the breast skin are the most independent risk factors associated with poor quality of life . On the other hand, the most independent protective factors associated with good QoL are women's age(OR=0.837, P=0.015) in which old age are (80%) protective for good QoL than young age , occupation (OR=0.201, P=0.017) in which worker women are (20%) protective factors associated with good QoL than non-worker, number of children (OR=0.709, P=0.011) in which women who have higher number of children are (70.0%) protective for good QoL than women have lower number of children . Conclusion: the study concluded that, women's education, monthly income, using of family planning methods, stage (III) of breast cancer and the presence of sores in the breast skin are the most independent risk factors associated with poor quality of life. Therefore, results are useful to establish strategy to improve quality of life of post mastectomies women. Recommendations: this study recommends Providing financial support for underprivileged, post mastectomies survivors and patients with low socioeconomic status in order to help them in continuing treatment according to protocol and an experimental study should be carried out to find out the effectiveness of a liaison psychiatric nursing program in reducing the stress levels, improving quality of life and enhancing coping strategies among the patients with cancer especially those undergoing mastectomy.

**Keywords:** Factors, Associated ,Women, Outpatient Clinics ,El-Beheira, Oncology Center ,Quality of life, Hormonal therapy, Post mastectomy.

---

## I. INTRODUCTION

Cancer means the uncontrolled growth of abnormal cells in the body. <sup>(1)</sup>World Health Organization (WHO) had announced in the World Cancer Day in 2018 that cancer is currently responsible for almost one in six deaths worldwide and about 70% of all cancer related deaths occurred either in low and middle income countries. The top ten cancer sites in the adult female are: breast, colon, rectum, leukemia, lymphomas, lung, melanoma of the skin, ovary, pancreas, thyroid, urinary and uterus. <sup>(2)</sup> Based on the World Health Organization (WHO) <sup>(3)</sup> 2020 worldwide, there were 2.3 million women diagnosed with breast cancer and 685 000 deaths globally. As of the end of 2020, there were 7.8 million women alive who were diagnosed with breast cancer in the past 5 years, making it the world's most prevalent cancer.

According to (WHO) <sup>(4)</sup> 2020 in Egypt, there were (22 .038) women diagnosed with breast cancer and (9. 148) deaths. As of the end of 2020, there were (61 .160) women alive who were diagnosed with breast cancer in the past 5 years. Breast cancer occupied the second position after liver cancer by cancer site.

Breast cancer is one of the oldest known forms of cancer tumors in humans. <sup>(5)</sup> The treatment for women diagnosed with breast cancer is complex, dynamic, controversial and hormonal therapy is one of the systemic therapy that is used to prevent recurrence of breast cancer or metastasis following primary breast cancer treatment. These adjuvant therapies work by either blocking estrogen production (Tamoxifen) or by inducing estrogen biosynthesis (aromatase inhibitors). Hormonal therapy was received by most patients (80%) for a mean of 5 years. It is a highly effective adjuvant treatment associated with a 40% reduction in breast cancer recurrence and 30% reduction in breast cancer-related mortality. <sup>(6,7)</sup>

A study done by Kunkel & Chen in (2003) <sup>(8)</sup>, breast cancer diagnosis “has a unique, often complex impact that raises concerns related to femininity, sexuality, body image, self-esteem, and mortality. Not only breast cancer cause negative impact on women's lives but also using treatment such as hormonal therapy on health related quality of life (HRQOL) is a multifarious frame work that appraises physical, functional, emotional and social well-being in relation to health. <sup>(9)</sup>

Mastectomy is the most common treatment that can range from removing the cancer and some nearby breast tissue to removing the entire breast, skin, nipple, and underarm lymph nodes. It can also involve one or both breast. A total mastectomy provides the greatest protection against cancer developing in any remaining breast tissue. <sup>(10)</sup>

A study done by Arroys& López in (2011) <sup>(11)</sup>, stated that “mastectomy causes more trauma than the cancer illness itself,” hence the need to deal in depth with this issue in order to promote a reasonable psychotherapeutic treatment for this women. The psychological ramifications of mastectomy can be especially substantial as these women face the distress and disfigurement caused by the loss of the breast in addition to the fear of a potentially life-threatening disease this affect her quality of life negatively. <sup>(12)</sup>

World Health Organization (WHO) <sup>(13,14)</sup> defines quality of life (QoL) as “individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns”. Quality of life include the perception and judgment of one's own life from the individual's own subjective perspective, as well as one's subjective well-being, or affective mood.

Quality of life of post-mastectomy woman may go through deep changes depending on the kind of relationship with her life partner. Life partners of women with mastectomy may be a source of emotional support or stress, resulting in a positive or negative influence on these patients' quality of life, women who are pleased with their partners declared being psychologically well-adjusted and sexually satisfied. <sup>(15)</sup>

Community health nurse work at all levels in caring for breast cancer patients before and after surgical treatment, providing a continuum of service which starts with promoting health and awareness in addition to continue through to the expert work in settings that provide services to them. <sup>(16,17)</sup> Nurses are an essential part of the professional health care team in outpatient clinics in oncology center , the role and scope of their practice, particularly with regard to primary health care (PHC) defined as ‘the promotion of a healthy lifestyle to optimize reproductive health outcomes. <sup>(18)</sup>

However, further studies to identify factors that diminish quality of life for post mastectomy women undergoing hormonal therapy under active treatment is necessary in order to form intervention guidelines to improve the quality of life of those women Accordingly this study was conducted to acquire an in-depth understanding of quality of life issues which will help to set recommendations for future guidelines in dealing with Egyptian breast cancer patients. Therefore the aim of this study was to identify factors associated with quality of life among women undergoing hormonal therapy post mastectomy at outpatients' clinics.

**Significance of the study**

Breast cancer in women is a major health issue and significant disease in modern society. In which the health professional have the potential to improve women quality of life. Assessing quality of life helps to consider women's problem more seriously and to re-consider techniques of treatment. The treatment for women diagnosed with breast cancer is complex, dynamic, and controversial. More choices available for local control and indications for systemic adjuvant therapy have changed dramatically. Mastectomy is considered one of advances in breast cancer treatment that aims to cure, prolong life and improve quality of life for patients. The loss of a breast traumatically affects a woman's life, reflecting negatively on her quality of life. One-third still report psychological problems after mastectomy as depression and anxiety. Women who are pleased with their partners declared being psychologically well-adjusted and sexually satisfied. The psychological ramifications of mastectomy can be especially substantial as these women face the distress and disfigurement caused by the loss of the breast in addition to the fear of a potentially life-threatening disease this affect her quality of life.<sup>(19)</sup>

**Aim of the study:**

To identify factors associated with quality of life among women undergoing hormonal therapy post mastectomy at outpatients clinics in El-Beheira oncology center.

**Research Question:**

What are factors associated with quality of life among women undergoing hormonal therapy post mastectomy at outpatients clinics in El-Beheira oncology center?

**II. MATERIALS AND METHODS****i. Research design:**

A descriptive cross sectional research design was used to carry out this study

**ii. Setting:**

The study was carried out in hormonal therapy outpatient clinics in oncology center in EL-Beheira governorate. Oncology center is the only governmental hospital responsible for providing treatment of cancer in El- Beheira governorate.

**iii. Subjects**

Women with mastectomy who were received hormonal therapy from the mentioned setting and who fulfilled the following **inclusion criteria:**

- Women in reproductive age period.
- Married and live with her husband.
- No history of chronic disease.
- Absence from disability (mental/ physical illness) that might affect their quality of life as patients with visceral metastases, or several metastatic sites.
- Conducted mastectomy surgery at least from one month.

**Sampling technique**

• Non probability sampling method was utilized to draw a convenient sample of 200 women participated in study. The study sample of women who were at the time of study attending breast cancer follow up appointment or receiving hormonal therapy after mastectomy operation.

**Sample size**

• It was calculated by using Epi -info 7 soft ware program for a population size of 350 women attendance /month, expected frequency 50%, margin error 5%, confidence interval 95%, creating a sample size of 185 so total sample size was 200 women.

**iv. Tools for data collection**

Two tools were used to identify factors associated with quality of life among women undergoing hormonal therapy after mastectomy at oncology center in El-Beheira governorate:

**Tool I: Women structured interview schedule:**

This tool was developed by the researcher after reviewing the recent literature in order to collect data from the study sample. It was included the following two parts:

**Part I: Socio-Demographic data of studied sample**

-This part include age, religion, women education, occupation, residence, insurance .

-Social class assessed by using Family Socioeconomic Status Scale (SES)<sup>(20)</sup>. This scale was generated in 1983 by Fahmy and El-Sherbini then; it updated and validated by Fahmy and El-Sherbini in 2015 in English language. It includes data about husband education ,occupation, type of family , family size , crowding index ,income /per-capita ,use of computer ,sewage disposal and refuse disposal .The resultant total score was transferred in to percentage and classified into three social classes as follow:

Score	Interpretation
<40%	Low class
40 % to<70%	Medium class
≥70% Total	High class

**Part II : Women’s health profile:**

This part covered the data about women health profile after reviewing literature and it was included the following data:

(A) **Family history of breast cancer** or any type of cancer.

(B)**Menstrual history** as age of menarche, regularity of menstruation , quantity of menstruation , problems associated with the menstrual cycle , type of problems associated with menstrual cycle.

(C) **Obstetric history** as number of pregnancy , number of labor, type of labor , use of oral contraceptive pills , women with breast fed (frequency –duration).

(D) **History of current cancer** as : stage of cancer ,diagnosed date of breast cancer ,signs and symptoms appeared , medication taken before mastectomy ,type of surgery ,lymph node status ,time since diagnosis , current treatment (hormonal therapy category ,dose, frequency , duration ,side effect and follow up)(adjuvant treatment dose, frequency , duration ,side effect) ,other health problems associated with the illness(onset – duration- severity) , use of breast prosthesis and previous screening measure for breast cancer.

**Tool II WHO Quality of Life Assessment scale Sheet -100(WHOQOL-100)<sup>(13)</sup>:**

The WHOQOL-100 is a short version of comprehensive health related QOL assessment scale that defined by the World Health Organization (WHO) Quality of Life Group at (1998). It provides an excellent alternative to the more complete WHOQOL-100, from which this brief version is derived. Moreover, it allows assessment of each individual facet within domains relating to quality of life with great details, however, this may be too lengthy for practical use. It was consisted of 100 questions WHOQOL-100 items showed a good fit with models reflecting six domains

-The domains are: Physical health (3 facets) ( Pain and discomfort, energy and fatigue, sleep and rest), Psychological health (5 facets) ( Positive feelings, thinking and concentration, self-esteem, bodily image appearance and negative feelings), Level of independence (4 facets) ( Mobility, activities of daily living, dependence on medication and work capacity), Social relationships (3 facets) ( Personal relationships, Social support and Sexual activity), Environment (8 facets)(Physical safety and security, home environment, financial resources, Health and social care, opportunities for acquiring new information and skills , Recreation/leisure, Physical environment and Transport),

## International Journal of Novel Research in Healthcare and Nursing

Vol. 9, Issue 2, pp: (1-16), Month: May - August 2022, Available at: [www.noveltyjournals.com](http://www.noveltyjournals.com)

Spirituality/religion/personal beliefs Domain (1 facets). (Spirituality/religion/personal beliefs (single facet). These domains contain 24 facets plus a general facet (over all quality of life and general health) .

-It scored through summative scaling, each item contributed equally to the facet score, each facet contributed equally to the domain score. All facet and domain score are transformed to reflect scale from 0-100 with higher scores denoting a better quality of life.

- Each question of the WHOQOL-100 had five of the answer choices on an ordinal likert scale include not at all (1) ,A little (2) , A moderate amount (3) , very much (4) and an extreme amount(5). Facets are scored through summative scaling and then classified as follow:-

Score	Interpretation
0-<50	Poor quality of life
50- <75	Fair quality of life
75-100	Good quality of life

### Methods

The study was implemented according to the following steps:

#### i. Administrative process:

- Official letters from the faculty of Nursing, Damnhour University was directed to the director of oncology center to inform him about the study objectives and to take their permission for conducting the study.
- Meetings were held with the directors of the selected setting to obtain their approval, clarify the purpose of the study as well as to gain their cooperation and support during data collection.
- Approval was obtained to collect the data from the selected outpatient clinics.

#### ii. Development of study tools:

- Tool I: Women structured interview schedule was developed by the researcher based on relevant literature.
- Tool II: This sheet was derived from WHO quality of life -100 "WHOQOL-100 items" which was developed by the WHO Quality of Life Group at (1998) then translated in to Arabic and adopted to the patients' level of understanding by the researcher.
- Tool I and tool II were tested for validity by exposing it to a jury composed of five experts in the field of community health Nursing (CHN) ,Medical Surgical nursing and Obstetric nursing for content validity and their opinions & suggestions were taken into considerations and recommended modifications were done accordingly
- Tool II was tested for reliability using the cronbach's alpha coefficient test which indicated an accepted reliability of the tool ( $\alpha = 0.864$ ).

#### iii. Pilot study

A Pilot study was carried out on 10 % of the selected subject which was composed of 20 women who were chosen randomly and weren't be included in the study. After completed the sheet, gave individual feedback about the content to assure the clarity, applicability and comprehension of the tool and identify obstacles and problems that might be encountered during data collection to estimate the time needed for data collection.

#### iv. Collection of data:

- The data collection process was conducted in the waiting area of the oncology center after patient follow up appointment.
- Each interview took approximately from 40-60 minutes.
- Data was collected over a period of 9 months (from February 2020 to November 2020) and (from April 2020 to June 2020) 3 months ban due to wave of corona virus.

- Variables were analyzed using the descriptive statistics which included: percentages, frequencies, range (minimum and maximum), arithmetic mean, and standard deviation (SD). They are used as measures of central tendency as dispersion respectively for normally distributed quantitative data.
- The level of significance selected for this study was  $p \leq 0.05$ .
- Chi square test (X<sup>2</sup>) was used to test the significance of the results and to test the association between two qualitative variable or to detect difference between two or more proper.
- Monte Carlo correction for chi square was used whenever more than 20% of cells had expected count less than five.
- Multiple logistic regression factor to detect all predictors affecting overall quality of life.

**v. Ethical consideration**

- Permission to conduct the study was obtained from ethical committee in the faculty of nursing, Damanhour university .
- Informed consent was obtained from each woman to participate in the study after explanation of the study aim and assured that collected data was used only for the study purpose and informed them about their voluntary participation.
- Confidentiality and anonymity of women response was guaranteed by using code numbers instead of names.
- A code number was used instead of names. This helped a lot to ensure their cooperation and gaining their confidence.

**III. RESULTS**

**Table (1)** illustrates the distribution of the studied women according to their socio demographic characteristics. It shows that the age of the studied women ranged from less than 30years to equal or less than 45 years with a Mean ± SD(36.64 ± 5.33) years. Regarding to religion, the majority (91.0%) of the studied women were Muslim and only (9%) were Christian. With respect to the educational level, it can be observed that more than one third (37%) of the studied women had secondary education, while only (3.5%, 5%, 5.5%) of them had post graduate education, read and write and had primary education respectively. Regarding occupation, the table shows that more than two thirds (69.5%) of the studied women were house wife and less than one third (30.5%) were work. Concerning residence more than half (55.5%) were living in rural areas. Regarding to health insurance, the majority (82.5%) of the studied women didn't cover by health insurance. Concerning the family type, it was observed that more than half (60.5%) of the studied women belonged to nuclear families.

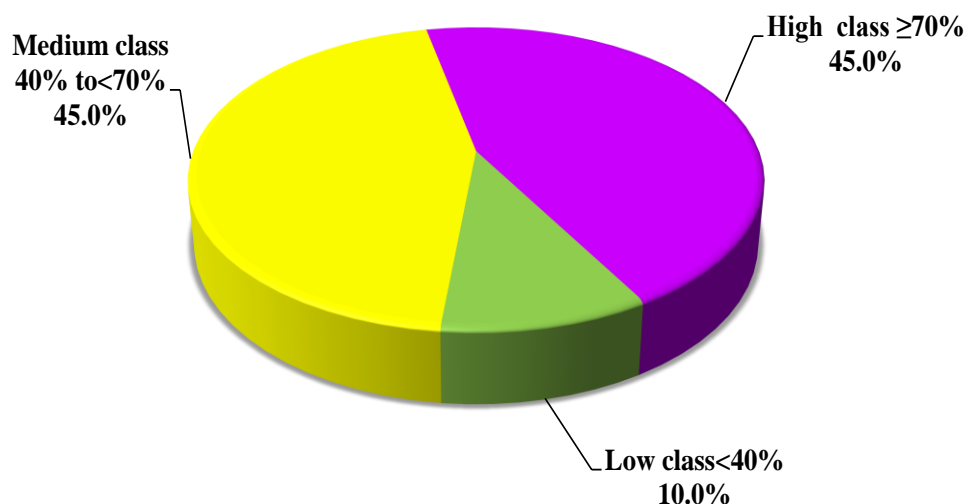
**Table (1): The distribution of the studied women according to their socio demographic characteristics.**

Socio-demographic characteristics of women	No.	%
<b>Age (years)</b>		
- <30	22	11.0
- 30 –<40	97	48.5
- ≤45	81	40.5
Min. – Max.	21.0 – 44.0	
Mean ± SD.	36.64 ± 5.33	
<b>Religion</b>		
- Muslim	182	91.0
- Christian	18	9.0
<b>Education</b>		
- Illiterate	28	14.0
- Read and write	10	5.0
- Primary education	11	5.5
- Preparatory education	21	10.5
- Secondary education	74	37.0
- University education	49	24.5
- Postgraduate education	7	3.5



<b>Occupation</b>		
- House wife	139	69.5
- Work	61	30.5
-Business work	17	27.9
-Craftsmanship	13	21.3
-Administrative functions	31	50.8
<b>Residence</b>		
- Urban	89	44.5
- Rural	111	55.5
<b>Presence of health insurance</b>		
- Yes	35	17.5
- No	165	82.5
<b>Type of family</b>		
- Nuclear	121	60.5
- Extended	79	39.5

**Figure (1): Distribution of the studied women according to their socioeconomic score.** It reveals that, the same percent of studied women (45%) belonged to medium and high class while the rest of them (10%) belonged to low class.



**Figure (1): Distribution of the studied women according to their socioeconomic score**

**Table (2): Distribution of the studied women according to their health profile:**

The table shows that , more than one quarter (28.5%) of the studied women had family history of other type of cancer (colon ,liver , lung ,bone , stomach), about one fifth (20%) of them had family history of reproductive organ cancer. About one tenth (10%)of them had family history of breast cancer.

Regarding the age of menarche, two fifths (38.0%) of the studied women, their menstruation started at age of twelve to less than fourteen years while more than one quarter (26.0%) of them started menstruation at the age below twelve years. It is also observed from the table that the majority (77.5%) of the studied women had irregular menstruation. The table shows that the majority (90%) of studied women had previous pregnancies. Regarding using of family planning methods more than half (56.7%)didn't use any method.

In relation to stage of breast cancer more than half (55.0%) of studied women reach to stage (II) and more than one third of them (35.0%) reach to stage (I). Regarding type of mastectomy more than two fifths (41.5%) of studied women performed modified radical mastectomy and more than one third of them (35.0%) performed skin-sparing mastectomy. On the other hand, more than one fifth (21.5%) of them performed nipple-sparing mastectomy and only (2.0%)

**International Journal of Novel Research in Healthcare and Nursing**

 Vol. 9, Issue 2, pp: (1-16), Month: May - August 2022, Available at: [www.noveltyjournals.com](http://www.noveltyjournals.com)

performed Radical mastectomy. As well as, more than half (60.5%) of the studied women didn't have problems in the lymph nodes under the armpit of a resurrected breast. With respect to the use of breast prosthesis, the majority (86.5%) of studied women wouldn't use breast prosthesis .

**Table (2): Distribution of the studied women according to their health profile**

Health profile	No.	%
<b>Family history of breast cancer or any type of cancer*</b>		
Breast cancer	20	10.0
Reproductive organ Cancer	40	20.0
Other cancer type(colon , bone ,liver lung ,stomach)	57	28.5
<b>Age of menarche</b>		
- Less than 12 year	52	26.0
- 12 <14	76	38.0
- 14<16	43	21.5
- 16+	29	14.5
<b>Regularity of menstruation</b>		
- Regular	45	22.5
- Irregular	155	77.5
<b>Previous pregnancy</b>		
- No	20	10.0
- Yes	180	90.0
<b>Use of family planning methods (n=180)</b>		
- Yes	78	43.3
- No	102	56.7
<b>Stage of cancer</b>		
- Stage (I): Tumor spread beyond the breast.	70	35.0
- Stage (II):Tumor spread beyond the breast tissue and reach to the lymph node.	110	55.0
- Stage (III):Tumor spread beyond the breast tissue and reach to the lymph node near to chest bone.	20	10.0
- Stage (IV):Tumor spread beyond the breast tissue and reach to the lymph node near to chest bone and spread outside the breast to other organs in the body	0	0.0
<b>Type of mastectomy</b>		
- Nipple-sparing mastectomy :removal of breast tissue with preservation of the nipple areola complex.	43	21.5
- Modified radical mastectomy :total breast removal, including the nipple, the brown part around the nipple, and part of the lymph nodes under the armpit.	83	41.5
- skin-sparing mastectomy :removing the entire breast, including the nipple and the brown part around the nipple	70	35.0
- Radical mastectomy :removal of the entire breast, including the nipple and the brown part around the nipple, the lymph nodes under the armpit and the chest muscles under the breast	4	2.0
<b>Problems in the lymph nodes under the armpit of a resurrected breast</b>		
- Yes	79	39.5
- No	121	60.5
<b>Using of breast prosthesis</b>		
- Yes	27	13.5
- No	173	86.5

# More than one answer



**Table (3): Distribution of the studied women according to levels of quality of life assessment scale (n=200).** The table portrays that, more than half of the studied women (57.5%) had fair quality of life while more than two fifths (42.0%) of them had poor quality of life with a mean percent score of  $51.27 \pm 10.75$ .

**Table (3): Distribution of the studied women according to levels of quality of life assessment scale (n=200).**

Quality of life assessment scale sheet	No.	%
Poor quality of life	84	42.0
Fair quality of life	115	57.5
Good quality of life	1	0.5
<b>Total Score</b>		
Min. – Max.	203.0–405.0	
Mean $\pm$ SD.	305.07 $\pm$ 43.01	
<b>% score</b>		
Min. – Max.	25.75–76.25	
Mean $\pm$ SD.	51.27 $\pm$ 10.75	

**Table (4): Relation between Quality of Life assessment scale sheet and socio-demographic characteristics of women.** This table show ,there is statistically significant difference between the women’s quality of life and their age, these results showed that the poor quality of life score is increased from (17.9 % )among those aged less than 30 years to (42.9 % )among those aged equal or less than 45 years( $X^2=10.138, P^{MC}=0.025$ ).

The table also portrays that, there is statistically significant difference was observed between the women’s quality of life and their secondary education( $X^2= 47.348, P^{MC} \leq 0.001$ ). Those with less education tended to have poorer quality of life. Nearly one quarter (26.2%) of illiterates as compared to (22.6%) of those who had secondary education and 21.4% of those had university education) reported poor quality of life.

Concerning occupation, there is statistically significant difference was observed between these groups ( $X^2=5.14, P^{MC}=0.048$ ). The majority (63.1%) of them were house wife in this study had poor quality of life.

Regarding socioeconomic status of studied women, statistically significant difference between the women’s quality of life and their socioeconomic status ( $X^2=19.056, P^{MC} \leq 0.001$ ). Less than half (48.8%) of them with medium class and less than one third (32.1%) with high class had poor quality of life.

**Table (4): Relation between quality of life assessment scale sheet and socio-demographic characteristics of women**

Socio-demographic characteristics of women	Quality of life assessment scale sheet						$\chi^2$	MC P
	Poor (n=84)		Fair (n=115)		Good (n=1)			
	No.	%	No.	%	No.	%		
<b>Age (years)</b>								
- <30	15	17.9	7	6.1	0	0.0	10.138*	0.025*
- 30 –<40	33	39.3	63	54.8	1	100.0		
- $\leq 45$	36	42.9	45	39.1	0	0.0		
<b>Education</b>							47.348*	<0.001*
- Illiterate	22	26.2	6	5.2	0	0.0		
- Read and write	8	9.5	2	1.7	0	0.0		
- primary education	6	7.1	5	4.3	0	0.0		
- preparatory education	11	13.1	10	8.7	0	0.0		
- secondary education	19	22.6	55	47.8	0	0.0		
- University education	18	21.4	31	27.0	0	0.0		
- Postgraduate education	0	0	6	5.2	1	100.0		

<b>Occupation</b>									
- House wife	53	63.1	86	74.8	0	0.0	5.214*	0.048*	
- Work	31	36.9	29	25.2	1	100.0			
<b>Type of work</b>	<b>(n = 31)</b>		<b>(n = 29)</b>		<b>(n = 1)</b>				
- Business work	13	41.9	4	13.8	0	0.0	9.874*	0.022*	
- Craftsmanship	8	25.8	5	17.2	0	0.0			
- Administrative functions	10	32.3	20	69.0	1	100.0			
<b>Type of family</b>									
- Nuclear	50	59.5	70	60.9	1	100.0	0.652	0.929	
- Extended	34	40.5	45	39.1	0	0.0			
<b>Socioeconomic score</b>									
- Low class <40%	16	19.0	4	3.5	0	0.0	19.056*	<0.001*	
- Medium class 40 % to <70%	41	48.8	49	42.6	0	0.0			
- High class ≥70%	27	32.1	62	53.9	1	100.0			

$\chi^2$ : Chi square test    MC: Monte Carlo    \*: Statistically significant at  $p \leq 0.05$

**Table (5) illustrates the linear regression model for predictors of quality of life among women undergoing hormonal therapy post mastectomy:** Based on the findings, the model was statistically significant ( $P \leq 0.05$ ), in case of ( $P > 0.05$ ), they considered also factors affecting quality of life among women undergoing hormonal therapy post mastectomy but their effect were found similar with each other that means they had low effect on quality of life among women undergoing hormonal therapy post mastectomy, but cannot be ignored because they can be risk factors if combined with other factors.

According to the model, factor was considered a risk factor for poor quality of life among women undergoing hormonal therapy post mastectomy if  $OR > 1$ , while If  $OR < 1$  these factors play as a protective factors for good QoL. The most independent risk factors associated with poor QoL are women's education(  $OR=4.545$ ,  $P=0.017$ ) in which lower educated is more risk for poor QoL (4) fold than higher educated, monthly income ( $OR=4.936$ ,  $P =0.002$ ) in which not enough income is more risk for poor QoL (4) fold than who have enough income, using of family planning methods (  $OR=6.431$ ,  $P=0.001$ ) in which non user is more risk for poor QoL (6) fold than user , Stage (III) in which tumor spread beyond the breast tissue , reach to the lymph node near to chest bone ( $OR=16.010$  ,  $P=0.004$ ) is more risk for poor QoL (16) fold than other locations and the presence of sores in the breast skin( $OR=1.192$ ,  $P =0.006$ ) in which women who had this signs are risk for poor QoL(1) fold than other signs.

The most independent protective factors associated with good QoL are women's age( $OR=0.837$ ,  $P=0.015$ ) in which old age are (80%) protective for good QoL than young age , occupation ( $OR=0.201$ ,  $P=0.017$ ) in which worker women are (20%) protective factors associated with good QoL than non-worker, number of children ( $OR=0.709$ ,  $P=0.011$ ) in which women who have higher number of children are (70.0%) protective for good QoL than women have lower number of children .

The factors which showed the same effect on QoL .Concerning factors related to socio-demographic characteristic were women's residence ( $OR=1.150$   $P=0.790$ ) followed by use of computer ( $OR=2.240$ , $P=0.238$ ), age of husband ( $OR =1.087$ ,  $P=0.075$ ), husband's occupation especially administrative functions ( $OR=0.929$ ,  $P=0.891$ ) and no work( $OR=1.324$ ,  $P=0.771$ ) .

The table also shows that factors related to age of menarche ( $OR=1.879$ ,  $P= 0.194$ ), stress feeling and depression after operation as psychological problem ( $OR=0.471$ ,  $P=0.692$ ),( $OR=1.222$ ,  $P=0.911$ ) respectively, having information about breast cancer ( $OR=0.493$ ,  $P=0.326$ ) and isolation from social relations as a social problem( $OR=1.647$ ,  $P=0.414$ ).

Regarding factors related to women's stage of breast cancer , Stage (II) in which tumor spread beyond the breast and tumor spread beyond the breast tissue and reach to the lymph node ( $OR=0.995$ ,  $P=0.992$ ). Regarding factors related to duration of disease , if disease duration (1- < 2 yrs) ( $OR=2.961$ ,  $P=0.206$ ) , (2 - <3 yrs) ( $OR=4.123$ ,  $P=0.078$ ) and (3 yrs or more) ( $OR=1.847$ ,  $P=0.410$ ).Factors related to duration of hormonal treatment ,if duration 5 yrs ( $OR=3.526$ ,  $P=0.142$ ) ,7 yrs ( $OR=1.355$ ,  $P=0.703$ ) and if lifelong of hormonal treatment ( $OR=4.141$ ,  $P=0.090$ )

**Table 5: Multivariate analysis logistic regression for factors associated with quality of life among women undergoing hormonal therapy post mastectomy.**

Associated factors	P	OR	95% C.I	
			L.L	U.L
Age (years)(Old age )	0.015*	0.837	0.725	0.965
Education (Lower education )	0.017*	4.545	1.310	15.776
Occupation (Worker)	0.017*	0.201	0.054	0.753
Residence	0.790	1.150	0.410	3.230
No. of children(Higher number)	0.011*	0.709	0.544	0.923
Monthly income(Enough )	0.002*	4.936	1.822	13.373
Use of computer	0.238	2.240	0.587	8.538
Age of husband (years)	0.075	1.087	0.992	1.192
Occupation of husband*				
Administrative functions	0.891	0.929	0.325	2.657
No work	0.771	1.324	0.201	8.729
Age of menarche	0.194	1.879	0.726	4.862
Use of family planning methods (n=180)(Non User	0.001*	6.431	2.189	18.897
Signs and symptoms appeared				
The presence of sores in the breast skin(No Sores)	0.006*	1.192	0.059	0.621
Stage of cancer				
Stage (I): Tumor spread beyond the breast.®	0.900	1.061	0.423	2.659
Stage (II): Tumor spread beyond the breast tissue and reach to the lymph node.				
Stage (III): Tumor spread beyond the breast tissue and reach to the lymph node near to chest bone.	0.004*	16.010	2.479	103.404
Psychological problem				
Stress	0.692	0.471	0.011	19.417
Depression	0.911	1.222	0.037	40.454
Social factors				
Isolation from social relations	0.414	1.647	0.497	5.457
Having information about breast cancer	0.326	0.493	0.120	2.023
Disease duration				
Less than 1 yrs	0.206	2.961	0.550	15.945
1-<2 yrs	0.078	4.123	0.854	19.904
2-<3 yrs	0.410	1.847	0.429	7.948
3 yrs or more®				
Duration of hormonal treatment				
3yrs®	0.142	3.526	0.657	18.924
5yrs	0.703	1.355	0.285	6.443
7yrs	0.090	4.141	0.799	21.455
Life long				

OR: Odds ratio CI: Confidence interval LL: Lower limit UL: Upper Limit

®: reference group \*: Statistically significant at  $p \leq 0.05$

#### IV. DISCUSSION

Breast Cancer (BC) is a life-changing event compared to other malignancies in women, it is a heterogeneous disease with several tumor subtypes, each of which respond differently to treatment.<sup>(21,22)</sup> Breast cancer is the most common cancer in women and the most prevalent cancer world wide.<sup>(3)</sup>

Findings from the present study showed that more than half of the studied women had fair quality of life. The findings of this study is in harmony with study done by Shastri A et al (2017)<sup>(23)</sup> in India and Thomas A and Job K (2017)<sup>(24)</sup> who found that more than half of post mastectomies had fair quality of life. In addition, this findings of this study is contradicted with the study conducted by Enien M et al (2019)<sup>(25)</sup> in Egypt to study impact of surgery and treatment modality in breast cancer health related quality of life who indicated that more than half of Egyptian women with breast cancer treatment had good Quality of life.

To promote quality of life of post mastectomies women who undergoing hormonal therapy, it is necessary to understand those factors that can have an impact on it and predisposes to either poor or good quality of life. Moreover, In this study: regarding age of studied women, there were statistically significant relationship between women's age and all dimensions of Quality of life scores. Old age are (80%) protective for good Quality of life than young age. This in line with study done by Alawadi SA and Ohaeri JU in Kuwait (2009)<sup>(26)</sup> who suggested that older patients showed better Quality of life than younger persons. On the other hand, study done by Fal A et.al in Poland (2019)<sup>(27)</sup> who stated with age the Quality of life of the respondents decreased than younger and Maharjan M et.al (2018)<sup>(28)</sup> who stated no association between age of post mastectomy women and their Quality of life and. This variation may be younger age were more concerned about their body image than old age.

Concerning educational level of studied women, there were statistically significant relationship between educational level and all dimensions of Quality of life scores. Lower educated post mastectomies women is more risk for poor Quality of life (4) fold than higher educated. This result is consistent with the result of Ahsan A et al (2018)<sup>(29)</sup> in Bangladeshi who concluded there was statistically significant relationship between education and Quality of life scores (QoL of educated post mastectomy women is improved than illiterate women). In a contrary of the results of current study, the study done Lavdaniti M et. al in Greek city (2019)<sup>(30)</sup> and Trupti S et.al (2018)<sup>(31)</sup> which postulated that education of women not affect Quality of Life after the completion of therapy. This variation may be due to small sample size in educational status groups and short period of data collection in Greek city.

As regards to women's occupation, there were statistically significant relationship between women's occupation and all dimensions of Quality of Life scores. Post mastectomies worker women are (20%) protective factors associated with good Quality of Life than non worker. The findings of this study were in accord with study done by Ganesh S et.al in Malaysia (2016)<sup>(32)</sup> to assess Quality of Life among breast cancer survivors who found that post mastectomies women who were house wife had poor Quality of Life than employed women. In contrast study conducted by Yılmaz M. And Turk K in Turkey (2018)<sup>(12)</sup> to assess the effect on quality of life and body image of mastectomy among breast cancer survivors who reported that no correlation between Quality of Life and working status. This variation may be due to about one third of this study sample were worker, work can be interpreted as an important effect for people to meet their needs, make them feel better and it increases their Quality of Life.

Concerning number of children of studied women, the study demonstrate that there were statistically significant relationship between women's who have higher number of children and all dimensions of Quality of Life scores. Post mastectomies women who have higher number of children are (70%) protective for good Quality of Life than women have lower number of children. This in line with Fal A et.al in Poland (2019)<sup>(27)</sup> who stated women who did not have children significantly worse in Quality of Life compared to patients with many children. On the other hand, Reza Z et. al (2019)<sup>(33)</sup> in Iran who stated no relationship between number of children and Quality of Life of breast cancer patient. This variation may be due to Egyptian children as an important part of family member that and play vital role to meet needs of women that affect her life.

Respecting to monthly income, the present study displayed that there were statistically significant relationship between monthly income and all dimensions of Quality of Life scores. Not enough income in post mastectomies women is more risk for poor Quality of Life (4) fold than who have enough income. This result is consistent with the result of Ahsan A et al (2018)<sup>(29)</sup> in Bangladeshi who concluded higher family income were associated with higher perceived Quality of Life of post mastectomy women. On the other hand, Yılmaz M. And Turk K in Turkey (2018)<sup>(12)</sup> who reported that no correlation between QoL and monthly income. This variation may be due to Egypt is classified as a lower middle income country based on 2008 GNI per Capita and long cancer journey that affect quality of life of women.<sup>(34)</sup>

In relation to women using family planning methods, the study promulgated that there were statistically significant difference between the women's Quality of Life and using family planning methods. Women post mastectomies who non user of family planning method is more risk for poor QoL(6) fold than user. This in line with Nindrea R et al (2017)<sup>(35)</sup> in Indonesia reported significant relationship between family planning usage, duration and Quality of Life.

Regarding the stage of cancer among women in this study and their Quality of Life the study showed that, there were statistically significant correlations between domains of Quality of Life scale and stage ( III) of breast cancer. Women post mastectomies who had tumor spread beyond the breast tissue and reach to the lymph node near to chest bone is more risk for poor QoL (16. 00) fold than other locations. This is go in line with study done by TzOu H et .al in Taiwan (2019)<sup>(36)</sup> who evaluate health related quality of life associated with different cancer treatments in breast cancer survivors who reported advanced-stage breast cancer (stage III) was significant correlations with domains of Quality of Life. In a contrary of the results of current study Uzun et. al (2004)<sup>(37)</sup> in Turkey who found no relationship between stage of breast cancer and QOL. This variation may be due to short period of data collection and small sample size.

The presence of sores in the breast skin as sign of disease is usually indicative of more advanced stages of breast cancer, namely, a stage in which the disease usually manifests itself in a more systemic way that affects the overall quality of life to a greater extent.<sup>(38)</sup> Result of this study showed post mastectomies women who had sores in the breast skin were risk for poor QoL (1) fold than other signs. This in line with study done by Raghavan et.al (2017)<sup>(39)</sup> in India who stated women who presented with breast swelling and sores as a symptom at diagnosis were (1.32) times more likely to experience poor Quality of Life than women with less invasive disease stages at the time of diagnosis.

Overall, findings from the current study concluded that surgical treatment and hormonal therapy for breast cancer is a stressful experience that has significant physical and psychological implications and can affect women quality of life in numerous ways. Support and assistance from family members especially husbands and friends as well as spirituality are of a great importance for those patients in order to help them accept, cope effectively with their condition, enjoying a higher quality of life and be more satisfied with their life.<sup>(40)</sup>

## V. CONCLUSION AND RECOMMENDATIONS

Based upon the findings of the present study, it could be concluded that more than half of the studied women had fair quality of life while more than two fifths of them had poor quality of life. The most independent risk factors associated with poor QoL are women's education( OR=4.545, P=0.017) in which lower educated is more risk for poor QoL (4) fold than higher educated, monthly income (OR=4.936, p =0.002) in which not enough income is more risk for poor QoL (4) fold than who have enough income, using of family planning methods ( OR=6.431, P=0.001) in which non user is more risk for poor QoL (5) fold than user, Stage (III) in which tumor spread beyond the breast tissue, reach to the lymph node near to chest bone (OR=16.010, p =0.004) is more risk for poor QoL (16) fold than other locations and the presence of sores in the breast skin(OR=1.192, p =0.006) in which women who had this signs are risk for poor QoL (1) fold than other signs.

The most independent protective factors associated with good QoL are women's age( OR=0.837, P=0.015) in which old age are (80%) protective for good QoL than young age, occupation (OR=0.201, p =0.017) in which worker women are (20%) protective factors associated with good QoL than non worker and number of children (OR=0.709, p =0.011) in which women who have higher number of children are (70%) protective for good QoL than women have lower number of children.

**Based on the current study findings the following recommendations are suggested:**

1. Provide financial support for underprivileged, post mastectomies survivors and patients with low socioeconomic status in order to help them in continuing treatment according to protocol.
2. Provide family strengthening services, such as parenting sessions, the promotion of positive husband-wife relationships and conflict resolution skills.
3. Develop and support campaigns to raise awareness about the rights of these women so as to prevent discrimination and stigma and to ensure respect for their identity post mastectomy



4. An experimental study should be carried out to find out the effectiveness of a liaison psychiatric nursing program in reducing the stress levels, improving quality of life, and enhancing coping strategies among the patients with cancer especially those undergoing mastectomy.
5. Comprehensive health educational programs for all women following breast cancer treatment in outpatients' clinics of oncology department units include psychological, social, rehabilitation, and follow up.

#### REFERENCES

- [1] Tyagi N , Sharma G, Sahu N , Chaudhary N and Sharivistiva B. Cancer: An Overview. *International Journal of Research and Development in Pharmacy & Life Sciences* . 2017; 6(5): 2740-2747. DOI org/10.21276/IJRDPL.2278-0238.
- [2] World Health Organization. Cancer . World Cancer Day in 2018 .Available from: <https://www.who.int/health-topics/cancer#tab>.
- [3] World Health Organization. Breast cancer: international agency for research in cancer 2020. [Cited 26 march 2021]. Available from: <https://www.who.int/news-room/fact-sheets/detail/breast-cancer>.
- [4] World Health Organization/International Agency for Research on Cancer: Egypt. December2020.Availableat <https://gco.iarc.fr/today/data/factsheets/populations/818-egypt-fact-sheets.pdf>. Accessed March 5, 2021.
- [5] Feng Y et al. Breast cancer development and progression: Risk factors, cancer stem cells, signaling pathways, genomics, and molecular pathogenesis. *Genes & diseases* . 2018 ; 5(2): 77-106. DOI: 10.1016/j.gendis.2018.05.001.
- [6] Wang F et al. The impact of radiation therapy, lymph node dissection, and hormonal therapy on outcomes of tissue expander–implant exchange in prosthetic breast reconstruction. *Plastic and reconstructive surgery*. 2016 ; 137(1): 1-9 . DOI : 10.1097/PRS.0000000000001866.
- [7] Simon R et al. Adherence to adjuvant endocrine therapy in estrogen receptor-positive breast cancer patients with regular follow-up. *Can J Surg*. 2014; 57(1):26–32. DOI: 10.1503/cjs.006211.
- [8] Kunkel EJ and Chen. Psychiatric aspects of women with breast cancer. *Psychiatric Clinics*. 2003; 26 ( 3): 713-724. DOI: 10.1016/s0193-953x(03)00038-8.
- [9] Shao J et . al . Multidisciplinary care of breast cancer patients: a scoping review of multidisciplinary styles, processes, and outcomes. *Current Oncology* . 2019 ; 26(3): 385-397. DOI: 10.3747/co.26.4713.
- [10] Sajadian A, Motaharinasab A, Kazemnejad A , Eklily D. Breast Cancer Coping Strategies after Diagnosis: A Six-month Follow-up. *Psychological Studies*.2017; 12(3):85-101. DOI: 10.9790/1959-0802034660
- [11] arroyo and López . psychological problems derived from mastectomy: a qualitative study.2011; 2(11):132 - 461. DOI: 10.1155/2011/132461.
- [12] Yılmaz M And Turk K. The effect on quality of life and body image of mastectomy among breast cancer survivors. *European journal of breast health* .2018; 14(4): 205. DOI: 10.5152/ejbh.2018.3875.
- [13] Whoqol Group. The World Health Organization quality of life assessment (WHOQOL): position paper from the World Health Organization. *Social scienc & medicine* .1995;41(10):140309.[cited2019oct19].Availablefrom:<https://www.who.int/healthinfo/survey/whoqol-qualityoflife/en>.
- [14] Lidón V and Castilla IM. Longitudinal analysis of subjective well-being in preadolescents: The role of emotional intelligence, self-esteem and perceived stress. *Journal of health psychology* .2020 ;27(2) 278–29. DOI:1359105320951605.
- [15] Nancy P, Barker C. The partner relationship in psychological response to breast cancer. *Social Science & Medicine*. 2000 ; (40.6): 789-797. DOI:org/10.1023/A:1022163205450.
- [16] Hariprasad R et al. Retention of knowledge levels of health care providers in cancer screening through telementoring. *Journal of global oncology* .2018; (4): 1-7. DOI: 10.1200/JGO.18.00048.



- [17] Prip An et al. The patient–healthcare professional relationship and communication in the oncology outpatient setting: A systematic review. *Cancer nursing*. 2018; 41(5): 11-22. DOI: 10.1097/NCC.0000000000000533.
- [18] Sara j et al. Community health worker programs to improve healthcare access and equity: are they only relevant to low-and middle-income countries. *International Journal of Health Policy and Management* .2018; 7(10):943-954. DOI: 10.15171/ijhpm.2018.53.
- [19] Triberti S, Savioni L , Sebri V and Pravettoni G . Health for improving quality of life in breast cancer patients. a systematic review. *Cancer treatment reviews* .2019;(74):1-14. DOI: <https://doi.org/10.1016/j.ctrv>.
- [20] Fahmy S, Nofal L and Shehata Sh. Updating indicators for scaling the socioeconomic level of families for health research. *Journal of the Egyptian Public Health Association* . 2015; 90(1) :1-7. DOI: 10.1097/101.EPX.0000461924.05829
- [21] Zelle S and Baltussen R. Economic analyses of breast cancer control in low- and middle-income countries: A systematic review. 2013; 2(1):20-22 . DOI :<https://doi.org/10.1186/2046-4053-2-20>.
- [22] Ozlem Y and Barutca S. Biological subtypes of breast cancer: Prognostic and therapeutic implications. *World journal of clinical oncology* .2014; 5(3):24- 412. DOI: 10.5306/wjco.v5.i3.412
- [23] Shastri1 A et al. Astudy of quality of life among patients undergoing mastectomy for malignant breast lesions .*International Surgery Journal*. 2017; 4(11) : 3638 -3640. . DOI: <http://dx.doi.org/10.18203/2349-2902.isj20174877>.
- [24] Thomas A and Job K. Arm function and quality of life among patients after mastectomy. *Journal of Clinical and Diagnostic Research*. 2017 ; 12(4). DOI: 10.7860/JCDR/2018/32662.11441
- [25] Enien MA et al. Health-related quality of life: Impact of surgery and treatment modality in breast cancer. *Journal of Cancer Research and Therapeutics* .2019; 14 (5) :957-963. DOI: 10.4103/0973-1482.183214
- [26] Alawadi SA and Ohaeri JU. Health - related quality of life of Kuwaiti women with breast cancer: a comparative study using the EORTC quality of life questionnaire. *BMC Cancer*. 2009 ; 8 ( 9) :222. DOI: 10.1186/1471-2407-9-222.
- [27] Fal A et al. Quality of life of women with breast cancer and socio-demographic factors. *Asian Pacific journal of cancer prevention: APJCP*. 2019; 21(1 ): 185. DOI: 10.31557/APJCP.2020.21.1.185.
- [28] Maharjan M et al. Quality of Life of Nepalese Women Post Mastectomy. *Asian Pacific Journal of Cancer Prevention*. 2018;19(4):1005-1012 DOI:10.22034/APJCP.2018.19.4.1005 .2
- [29] Rahman M, Ahsan A, Rahman K, Begum F, Paul A, Russell Md ,Ahmed H and Iqbal Ab .Impact of Neoadjuvant Chemotherapy on the Post Mastectomy Quality of Life in Bangladeshi Breast Cancer Patients. *Japanese Journal of Cancer and Oncology Research*. 2018; 2(1):1007.
- [30] Lavdaniti M et al. Factors influencing quality of life in breast cancer patients six months after the completion of chemotherapy. 2019; 7(1): 26. DOI: 10.3390/diseases7010026.
- [31] Trupti S et al. A study to assess the quality of life after mastectomy among women in a tertiary care hospital, karad. *Journal of Evolution of Medical and Dental Sciences*.2018; 7( 49) :3 .
- [32] Ganesh S et al .Quality of Life among Breast Cancer Patients In Malaysia.*Asian Pac J Cancer Prev* .2016;17(4):1677-84. DOI: 10.7314/apjcp.2016.17.4.1677.
- [33] Reza Z et al. Quality of life in Iranian breast cancer survivors and affecting factors: A Review Article. *Asian Pacific Journal of Environment and Cancer*.2019; 2(1):5-9. DOI: 10.31557/APJEC.2019.2.1.5-9.
- [34] Ibrahim As et al. Cancer Incidence in Egypt: Results of the National Population-Based Cancer Registry Program.2014; 2(4): 437971. DOI.org/10.1155/2014/437971.
- [35] Nindrea R et al. Breast Cancer Risk Factors Among Women in the Southeast Asia : A Meta-analysis. *Asian Pacific Journal of Cancer Prevention*.2017 ;18 (12):3201-3206. DOI:10.22034/APJCP.2017.18.12.3201.

**International Journal of Novel Research in Healthcare and Nursing**Vol. 9, Issue 2, pp: (1-16), Month: May - August 2022, Available at: [www.noveltyjournals.com](http://www.noveltyjournals.com)

- [36] TzOu H et al . Health-related quality of life associated with different cancer treatments in Chinese breast cancer survivors in Taiwan. *Euopanr Journal Cancer Care*. 2019; 28 :13069. DOI: 10.1111/ecc.13069.
- [37] Uzun O et al. Quality of life in women with breast cancer in Turkey 2004;36(3):207-13.DOI: 10.1111/j.1547-5069.2004.04039.x.
- [38] Sharma Gn et al. Various Types And Management Of Breast Cancer: An Overview *Journal of Advanced Pharmaceutical Technology Resarch*. 2010; 1(2): 109–126.
- [39] Raghavan V et al. Health-related quality of life in patients with multiple myeloma on novel agents: Report from a tertiary cancer center in rural India. *Cancer Research, Statistics, andTreatment*.2017; 1(2):92. DOI: 10.4103/CRST.CRST\_11\_19.
- [40] Anupriya B. Navigating Self-Objectification with Social Support and Relationship Authenticity in Mastectomy Survivors. *Sch J Arts Humanit Soc Sci* 7 2021; 9(7):315-322. DOI: 10.36347/sjahss.2021.v09i07.003.