Quality of Life for Clients with Radical Mastectomy

Yasmin Hemdan,*, Magda Abd-Elsattar Ahmed,. **& Mervat Mohamed Hassan. ***
BSc. Nursing Sciences 2012*, Professor of Community Health Nursing, Faculty of Nursing**, ***Lecturer of Community Health Nursing, Faculty of Nursing*** Ain Shams University

Abstract

Background: Quality of life of the modified radical mastectomy patients are greatly influenced by the surgical procedure as well as other treatment modalities like radiation therapy and chemotherapy. **The aim of the study:** The study aimed to determine the quality of life for the client with modified radical mastectomy. **Research design:** Descriptive design utilized in carrying out this study. **Subject**: A Convenient sample composed of 100 adult women admitted to the oncology department at the outpatient clinic of Baheya hospital. **Tools**: Interviewing questionnaire to assess demographic data of the women, knowledge assessment sheet about modified radical mastectomy, women practices after modified radical mastectomy, women's health problems after modified radical mastectomy and quality of life scale. **Results:** 40% of the studied women had satisfactory knowledge regarding modified radical mastectomy, 72% of the studied women had unsatisfactory care after modified radical mastectomy and 81% of the studied women had poor quality of life. **Conclusion:** Based on the study finding it concluded that, there is a statistically significant difference between the quality of life of studied women with modified radical mastectomy and their knowledge, practices toward the care related to modified radical mastectomy. Besides, there is a statistically significant difference between the quality of life of clients with modified radical mastectomy and their health needs and problems. **Recommendation:** Develop a health education program for women after mastectomy and their family management of the psychological & physical problems of chemotherapy that allows patients to base their understanding of cancer on sound information and misinformation.

Keywords: Breast Cancer, Modified Radical Mastectomy, Quality Of Life

Introduction

Breast cancer is the most common cancer in women, exclusive of cancers of the skin. It is the second leading cause of cancer death after lung cancer. Breast cancer is a major public health concern throughout –out of the world. It is common in both developed as well as developing countries **(Centers for Disease Control and Prevention, 2016)**.

The standard of care for breast cancer treatment includes surgical removal of the tumor and adjuvant therapies that include local irradiation and systemic therapies, such as biological agents, hormonal therapies, and chemotherapy. Each of these therapies may have short and long-term consequences that affect mobility, function, and quality of life (QOL). In addition, women with breast cancer suffer from severe stress, anxiety, and depression lasting many years after recovery. Improvements in treatments and earlier identification and staging of breast cancer have led to increased survival rates and life expectancy **(Smoot et al., 2016)**.

Surgery is the cornerstone of definitive treatment for most women with breast cancer. Surgery is of any kind can be a challenging experience, but mastectomy-the surgical removal of one or both breasts to treat or prevent breast cancer may raise special concerns. It will cause loss of bodily functions, damage to body image and a threat to life itself. Mastectomy is traditional as well as definite

treatment for breast cancer. After a mastectomy, the client has to modify her lifestyle to prevent complications and recurrence **(Reddy, 2016)**.

Advancements in treatments and effective possibilities of control of this illness have resulted in higher chances of survival and/or longer life spans for people who suffer from these illnesses. In this sense, professionals in the field of oncology have observed the necessity of knowing and assessing the life condition of patients in its entirety, to increase their survival rate and improve their QL **(Silva et al., 2014)**.

Quality of life is the degree to which the experience of an individual's life satisfies his/her personal wants anti needs (both physical and psychological) **(Glaser & Dutcher, 2014)**. QoL assessment is becoming increasingly important for measuring the impact of illnesses, diseases, and their treatment and for deciding priorities when allocating resources **(O'Boyle et al., 2014)**.

Significance of the Study

Considering that mastectomy can be one of the factors that affect the quality of life of patients **(Weenk et al., 2016)**. Women after mastectomy face psychosocial and physical issues involving the diagnosis of cancer and the loss of the breast and the nurses have a wide-ranging role to play as part of the professional team looking after these patients and improving their quality of life. Therefore, assessment of the quality of life for clients with modified radical mastectomy is deemed important in achieving the goal of quality care.

Aim of the study

This study aimed to determine the quality of life for the client with modified radical mastectomy through:

1.Assessing the quality of life domains for clients with modified radical mastectomy.

2.Assessing clients' knowledge about care after a modified radical mastectomy.

3.Assessing clients' practices toward care after modified radical mastectomy.

4.Assessing health needs and problems of clients with modified radical mastectomy.

Research question:

1.What are the quality of life domains for clients with modified radical mastectomy?

2.Are there relations between clients' Socio-demographic characteristics and their knowledge about care after modified radical mastectomy?

3.Is there a relationship between the quality of life of the client with modified radical mastectomy and their knowledge about care after modified radical mastectomy?

4.Is there a relationship between the quality of life of clients' modified radical mastectomy and their practices toward the care after modified radical mastectomy?

5.Is there a relationship between the quality of life of clients' modified radical mastectomy and their health problems?

The subject and methods of the current study discuss under the following four (4) designs:

I. Technical Design
II. Operational Design
III. Administrative Design
IV. Statistical Design

Research Design

A descriptive design was used to conduct this study.

A. Study Settings

The study carried out at the outpatient clinic of Baheya hospital.

B. Subjects

The subject of this study was a convenience sample composed of 100 of adult

women admitted to the oncology department at the previously mentioned setting for 4 months and under the following inclusion criteria:

1.Various ages of adult women.
2.Women who were three months post-operative of modified radical mastectomy.

C. **Technical Design**

Tools of data collection

Data collected through use of the following tools:

I. First tool: A structured Interviewing Sheet: this tool was designed by the researcher and written in simple Arabic language based on a scientific literature review to gather data concerning the following parts:

Part I. Interviewing Questionnaire: It designed by the researcher after reviewing the currently available literature to assess:

1.Socio-demographic data contains age, marital status, family size, education level, occupation and income per month per capita.

Part II. Knowledge Assessment Sheet: it used to assess the knowledge of women about modified radical mastectomy: diagnosis, treatment, investigations, and follow-up regimens.

Scoring system: The right answer scored one, and that wrong scored zero. These scores summed-up and converted into a percent score.

- Score from < 60 referred to unsatisfactory knowledge.
- Score from 60 ≤ 100 referred to satisfactory knowledge.

Part III. Women Practices: it used to assess women care toward practice regarding modified radical mastectomy it includes:

- Breast care
- Breasts self-examination
- Exercises

Scoring system: The correct step scored one, and that incorrect /not done step scored zero. These scores summed-up and converted into a percent score:

- Score from < 60 referred to unsatisfactory care.

- Score from 60 ≤ 100 referred to unsatisfactory care.

Part IV. Women's health problems after modified radical mastectomy included:

- Physical health problem (25 items)
- Psychological health problem(14 items)
- Social health problem(6 items)
- Spiritual health problem(5 items)
- Sexual health problem(5 items)

Scoring system: The not present health problems scored one, and those present health problems scored zero. These scores summed-up and converted into a percent score:

- Score from < 60 referred to present health problems.

- Score from 60 ≤ 100 referred to not present health problems.

Second tool: Quality of life scale: to assess the quality of life for women with modified radical mastectomy included:

- Physical aspects (15 items)
- Financial and social aspects (10 items)
- Psychological and spiritual aspects (24 items)
- Family aspects (12 items)
- Sexual aspects (5 items)

Scoring system: The always scored one sometimes scored two and that never was scored three. These scores were summed-up and converted into a percent score:

- More than 75% considered a good quality of life
- Less than 75% to 50% considered the average good quality of life
- Less than 50% considered the poor good quality of life

Operation Design

The operational design for this study consisted of three phases, namely the preparatory phase, pilot study, and fieldwork.

Content and face validity and reliability

Content validity was ascertained by a group of experts to test its content validity and applicability, Reliability was don used test-retest (0.83).

Preparatory Phase

This phase included reviewing literature related quality of life for women after a modified radical mastectomy. This served to develop the study tools for data collection. During this phase, the researcher also visited the selected place to be acquainted with the personnel and the study settings. The development of the tools was under supervisors' guidance and experts' opinions considered.

Pilot Study

A pilot study carried out on 10% of women after mastectomy at the outpatient clinic of Baheya hospital to test the applicability of the constructed tools and the clarity of the included questions related to the quality of life for women after a modified radical mastectomy. The pilot has also served to estimate the time needed for each subject to fill in the questions. According to the results of the pilot, some corrections and omissions of items performed as needed. The pilot participants were not included in the main study sample.

Fieldwork

To carry out the study, approval obtained from the medical and nursing director of the outpatient clinic of Baheya hospital. A letter issued to them from the Faculty of Nursing, Ain-Shams University, explaining the aim of the study to obtain their permission and cooperation. Data collected in four months periods / the researcher was available two days/week. Each woman interviewed individually using the previously mentioned study tools.

The researcher first met with the women after mastectomy in the previously mentioned setting, explained the purpose of the study after introducing herself. The women assured that information collected treated confidentially, and it would use only for the research, then, individual interviewing done after obtaining caregiver consent to participate.

Administrative Design

Approval obtained through on issued letter from the form the Dean of Faculty of Nursing, Ain Shams University to directors of the previously mentioned setting. The researcher then met the hospital director and explained the purpose and the methods of the data collection

Ethical Consideration:

Verbal approval obtained from the women before inclusion in the study; a clear and simple explanation given according to their level of understanding, physical and mental readiness. They secured that all the gathered data as confidential and used for research purposes only.

Statistical Analysis

Data collected from the studied sample was revised, coded and entered using. PC. Computerized data entry and statistical analysis fulfilled using the statistical package for social sciences (SPSS) version 25. Data presented using descriptive statistics in the form of frequencies, percentages. Chi-square (x^2) test of significance used to compare proportions between two qualitative parameters. The confidence interval was set to 95% and the margin of error accepted was set to 5%. So, the p-value considered significant as the following:

- P-value <0.05 was considered significant.

- P-value <0.001 was considered highly significant.
- P-value >0.05 was considered insignificant.

Results

Table (1) shows that less than two thirds (64shows that 41% of the studied women their age more than 40 years and 51% of them married. According to the level of education, 28% of them were basic education, 52% of them from urban areas and 72% of the studied women were housewives

Figure (1) shows that 40% of the studied women had satisfactory knowledge regarding modified radical mastectomy, while 60% had unsatisfactory knowledge

Figure (2) displays that, more than shows that 72% of the studied women had unsatisfactory practice after modified radical mastectomy, while 28% of them had satisfactory practice .

Figure (3) displays that, 80% of the studied women had health problems, while 20% of them had no health problems

Figure (4) shows that 80% of the studied women had poor quality of life, 13% of them had an average quality of life, while 6% of the good quality of life.

Table (2) illustrates that there is a statistically significant difference between age, marital status, educational level, residence and job of the studied women their knowledge after modified radical mastectomy

Table (3) illustrates that there are statistically significant differences between age, marital status, educational level and residence of the studied women their care after modified radical mastectomy, there is statistically insignificant difference between the jobs of the studied women their practice after modified radical mastectomy

Table (4) illustrates that there are statistically significant differences between age, marital status & job of the studied women their quality of life after modified radical mastectomy, there are statistically insignificant differences between educational level & residence of the studied women and their quality of life after modified radical mastectomy

Table (5) illustrates that there is a statistically significant difference between the quality of life of studied women with modified radical mastectomy and their knowledge toward the practice after modified radical mastectomy

Table (6) shows that there is a strong illustrates that there is a statistically significant difference between the quality of life of studied women with modified radical mastectomy and their practices toward the care after modified radical mastectomy

Table (7) illustrates that there is a statistically significant difference between the quality of life of clients with modified radical mastectomy and their health needs and problems.

Table (1): Distribution of the studied women according to their characteristic (no=100)

Items	No	%
Age in year		
20< 30	11	11.0
30< 40	48	48.0
≥ 40	41	41.0
Mean ±SD	45.5±3.4	
Marital status		
Single	12	12.0
Married	51	51.0
Divorced	20	20.0
Widow	17	17.0
Educational level		
Cannot read and write	11	11.0
Read and write	24	24.0
Basic education	28	28.0
Secondary education	20	20.0
University education	17	17.0
Residence		
Rural	48	48.0
Urban	52	52.0
Job		
Work	28	28.0
Housewife	72	72.0

Figure (1): Distribution of the studied women according to their total knowledge regarding modified radical mastectomy (no=100)

Figure (2): Distribution of the studied women according to their total practice after modified radical mastectomy (no=100)

Figure (3): Distribution of the studied women according to their health problems after modified radical mastectomy (no=100)

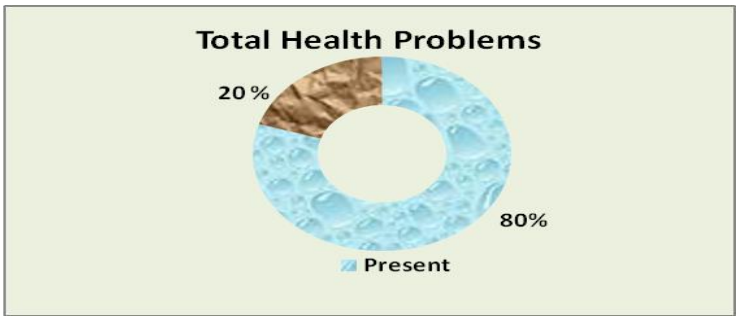

Figure (4): Distribution of the studied women according to their total quality of life after modified radical mastectomy (no=100)

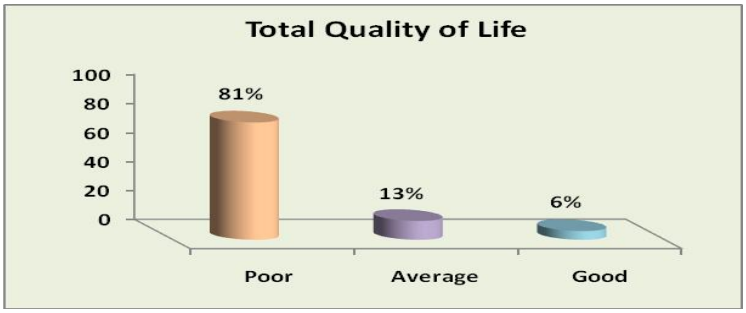

Table (2): Relations between studied women socio-demographic characteristics and their knowledge after modified radical mastectomy

Items	Knowledge				X2	P Value
	Satisfactory (n=40)		Unsatisfactory (n=60)			
	No	%	No	%		
Age in year						
20< 30	3	7.5	8	13.3	13.03	**0.001
30< 40	28	70.0	20	33.3		
≥ 40	9	22.5	32	53.4		
Marital status						
Single	4	10.0	8	13.3	11.42	*0.01
Marriage	19	47.5	32	53.3		
Divorced	14	35.0	6	10.0		
Widow	3	7.5	14	23.3		
Educational level						
Illiterate	1	2.5	10	16.7	32.47	**<0.0001
Read and write	3	7.5	21	35.0		
Basic education	9	22.5	19	31.7		
Secondary education	12	30.0	8	13.3		
University education	15	37.5	2	3.3		
Residence						
Rural	12	30.0	36	60.0	8.65	**0.003
Urban	28	70.0	24	40.0		
Job						
Work	22	55.0	6	10.0	24.11	**<0.0001
Housewife	18	45.0	54	90.0		

(*)Statistically significant at p<0.05 (**) Highly Statistical significant difference at p<0.01

Table (3): Relations between studied women socio-demographic characteristics and their practice after modified radical mastectomy

Items	Practice				X2	P Value
	Satisfactory (n=28)		Unsatisfactory (n=72)			
	No	%	No	%		
Age in year						
20< 30	4	14.3	7	9.7	14.98	****0.001**
30< 40	21	75.0	27	37.5		
≥ 40	3	10.7	38	52.8		
Marital status						
Single	2	7.1	10	13.9	12.13	***0.01**
Marriage	14	50.0	37	51.4		
Divorced	11	39.3	9	12.5		
Widow	1	3.6	16	22.2		
Educational level						
Illiterate	1	3.6	10	13.9	25.33	****<0.0001**
Read and write	2	7.1	22	30.6		
Basic education	4	14.3	24	33.3		
Secondary education	10	35.7	10	13.9		
University education	11	39.3	6	8.3		
Residence						
Rural	9	32.1	39	54.2	3.92	***0.04**
Urban	19	67.9	33	45.8		
Job						
Work	11	39.3	17	23.6	2.45	0.12
Housewife	17	60.7	55	76.4		

(*)Statistically significant at p<0.05 (**) Highly Statistical significant difference at p<0.01

Table (4): Relations between studied women socio-demographic characteristics and their total quality of life after modified radical mastectomy

Items	Quality of Life						X2	P Value
	Good (n=6)		Average (n=13)		Poor (n=81)			
	No	%	No	%	No	%		
Age in year								
20< 30	0	0.0	5	38.5	6	7.4	13.22	***0.01**
30< 40	2	33.3	4	30.8	42	51.9		
≥ 40	4	66.7	4	30.8	33	40.7		
Marital status								
Single	1	16.7	2	15.4	9	11.1	14.33	***0.02**
Marriage	0	0.0	3	23.1	48	59.3		
Divorced	2	33.3	4	30.8	14	17.3		
Widow	3	50.0	4	30.8	10	12.3		
Educational level								
Illiterate	1	16.7	3	23.1	7	8.6	2.87	0.94
Read and write	1	16.7	3	23.1	20	24.7		
Basic education	2	33.3	3	23.1	23	28.4		
Secondary education	1	16.7	2	15.4	17	21.0		
University education	1	16.7	2	15.4	14	17.3		
Residence								
Rural	4	66.7	5	38.5	39	48.1	1.31	0.52
Urban	2	33.3	8	61.5	42	51.9		
Job								
Work	3	50.0	7	53.8	18	22.2	7.10	***0.02**
Housewife	3	50.0	6	46.2	63	77.8		

(*)Statistically significant at p<0.05 (**) Highly Statistical significant difference at p<0.01

Table (5): Relations between the quality of life of studied women with modified radical mastectomy and their knowledge toward the practice after modified radical mastectomy

Knowledge	Quality of Life						X2	P Value
	Good (n=6)		Average (n=13)		Poor (n=81)			
	No	%	No	%	No	%		
Satisfactory	4	66.7	10	76.9	26	32.1	11.27	**0.003
Unsatisfactory	2	33.3	3	23.1	55	67.9		

(**) Highly Statistical significant difference at p<0.01

Table (6): Relations between the quality of life of studied women with modified radical mastectomy and their practices toward the practice after modified radical mastectomy

Practices	Quality of Life						X2	P Value
	Good (n=6)		Average (n=13)		Poor (n=81)			
	No	%	No	%	No	%		
Satisfactory	3	50.0	9	69.2	16	19.8	15.13	**0.001
Unsatisfactory	3	50.0	4	30.8	65	80.2		

(**) Highly Statistical significant difference at p<0.01

Table (7): Relations between the quality of life of clients' with modified radical mastectomy and their health needs and problems

Health Problems	Quality of Life						X2	P Value
	Good (n=6)		Average (n=13)		Poor (n=81)			
	No	%	No	%	No	%		
Not present	4	66.7	11	84.6	5	6.2	51.76	**<0.0001
Present	2	33.3	2	15.4	76	93.8		

(**) Highly Statistical significant difference at p<0.01

Discussion

Breasts are one of the attributes of femininity and their loss in the case of breast cancer is a traumatic psychological experience. Breast cancer therapy is dependent on the stage of the disease. Surgical treatment is a basic therapeutic procedure for breast cancer patients. Redial mastectomy leads to a significant deterioration in the quality of life **(Levine, Yoo, and Aviv, 2017)**.

Regarding the age of the studied women, the current study finding illustrated that, almost half of the studied women their age more than 40 years. This study finding was supported by the study of **Mohammad and Mansureh, (2015)**, who study the relationship between body esteem and hope and mental health in breast cancer patients after mastectomy they found that the highest frequency more than half in the age group of 50-70-year-olds.

Moreover, these findings were in agreement with that of **Pacaric et al., (2018)** who study the quality of life of Croatian women after mastectomy, found that the mean age of the patients was 56 years. However, this result contradicted **Sema and Ayla,(2013)** who studied the body image of women with breast cancer after mastectomy: qualitative research they reported

that the study participants were aged between 32 and 58 years; the -mean age was 45.9 years.

Regarding the level of education of the studied women, the current study finding illustrated that more than one-quarter of the studied women was basic education. These findings were in agreement with that of **Ahmed et al., (2017)**, who study the body image and quality of life after mastectomy among Egyptian women with breast cancer revealed that one quarter was basic education.

However, this result contradicted with **Amir and Ali, (2015)** who study the quality of life and related factors among the women-undergoing mastectomy, they mentioned that more than half of their sample had primary school education.

Regarding the level of education of the studied women, the current study finding illustrated that more than one-quarter of the studied women was basic education. These findings were in agreement with that of **Ahmed et al., (2017)**, who study the body image and quality of life after mastectomy among Egyptian women with breast cancer revealed that one quarter was basic education.

Concerning the marital status, the current study finding illustrated that half of the studied women were married, from urban areas and three-quarters of them were housewives. This results supported by **Sayed and Sabry (2014)** who mentioned that the majority of the study subjects were married, had completed secondary school educated, and housewives.

Regarding the level of knowledge of the studied women about mastectomy, the current study finding illustrated that more than half of the studied women had unsatisfactory knowledge. This was in agreement with the study of **Sharma, Ganguly, and Nagda, (2013)**, who study the knowledge, attitude and preventive practices of South Indian women towards breast cancer mentioned that, more than half of the women have poor knowledge regarding self-care post-mastectomy.

This could be due to that, the need for women to be aware of breast cancer, symptoms and different methods of treatment before the intervention.

Besides, the current study indicated that almost three-quarters of the studied women had unsatisfactory care after a modified radical mastectomy. These findings are the same line with **Ganesh, Lye, and Lau, (2016)**, who study the quality of life among breast cancer patients in Malaysia reported that who reported that their study findings showed that the patients had inadequate knowledge about arm lymphedema and self- care practice. It concluded that the majority of the patients had adequate self- care practices and arm morbidity minimized during the follow-up period.

The current study finding showed that the majority of the studied women had poor quality of life. These study findings were following the study of **Ahmed et al., (2017)** who study the body image and quality of life after mastectomy among Egyptian women with breast cancer revealed that two-thirds of the studied women have a poor quality of life.

This result disagreed with **Amir and Ali, (2015)** who study the quality of life and related factors among the women-undergoing mastectomy they indicated that the QOL of the majority of women with breast cancer was moderate QOL.

The researcher believes that physical appearance and body image was important, especially for younger women who lost their breasts due to mastectomy. The depression that these women might experience could lead to reduced quality of life regarding social interactions, mental health, and emotional functioning

The current study indicated that there is a statistically significant difference between age, marital status, educational level, residence and job of the studied women their knowledge after a modified radical mastectomy. These study findings were following the study of **Bahgat, Alaa Elden, Atia, EL Shikh, Elshemy, (2016)**, who study the efficacy of protocol of care on post mastectomized women outcomes mentioned that The most important factors associated with better knowledge in our study were higher education, employment, and high economic status.

The current study finding showed that there are statistically significant differences between age, marital status, educational level and residence of the studied women their care after modified radical mastectomy, there is a statistically insignificant difference between the job of the studied women their care after a modified radical mastectomy. This study

finding was supported by the study of **Bahgat, Alaa Elden, Atia, EL Shikh, Elshemy, (2016)**, who study the efficacy of protocol of care on post mastectomized women outcomes reported that there were a highly statistically differences regarding total Katz index independence in activities of daily living and instrumental activities of daily living of the study group in three times intervals, pre, post and follow up intervention.

This result may be due to the difference in sample size, the tools used, sampling method, type of treatment regimen, and different stages of treatment of patients.

The current study finding showed that there is a statistically significant difference between the quality of life of studied women with modified radical mastectomy and their knowledge toward the care after a modified radical mastectomy. This study was in an agreement with the study of **Kaminska et al., (2015)** who study the quality of life women with breast cancer after mastectomy or breast-conserving therapy treated with adjuvant chemotherapy shows that the level of patients' education influenced their physical and social functioning. A higher level of education directly connected with a wider scope of knowledge, which facilitated better adaptation and acceptance of the disease. Women with a lower level of education more frequently reported difficulties with their ability to work, as well as everyday activities and social functioning. At the same time, higher education and work status directly influenced the patients' financial status.

The current study finding showed that there is a statistically significant difference between the quality of life of studied women with modified radical mastectomy and their practices toward the care after a modified radical mastectomy. This result was in respect to **Groef et al., (2016)**, who found that activities most limited after breast cancer operation were lifting, carrying, and reaching out.

This result in respect to **Shabaan, (2013)**, reported that recovery of functional capacity in the treatment group is better throughout the follow-up period. In addition, this result accepted with **Soliman, Fouad, and Shehat, (2018)**, who confirmed the significant effect of the physiotherapy program proved safe and effective in improving shoulder function without major complications.

The current study finding showed that there is a statistically significant difference between the quality of life of clients with modified radical mastectomy and their health needs and problems. This finding in the same line with **Bahgat, Alaa Elden, Atia, EL Shikh, and Elshemy, (2016)**, who study the efficacy of protocol of care on post-mastectomies women outcomes, reported that, the limitations in activities of daily living, leading to a reduced quality of life that one of its determinants is the activity of daily living.

Conclusion

The current study showed that almost two-thirds of the studied women had unsatisfactory knowledge and practice after a modified radical mastectomy. The majority of the studied women had health problems after modified radical mastectomy. The highest percent of the women after modified radical mastectomy have poor physical, psychological, financial and social, spiritual, family and sexual quality of life.

Moreover, there were statistically significant differences between the characteristics of the studied women and their quality of life after a modified radical mastectomy. There was a statistically significant difference between the quality of life of studied women and their knowledge toward the care after a modified radical mastectomy. In addition, statistically significant differences between the quality of life of women with modified radical mastectomy and their health needs and problems.

Recommendations

Based upon the results of the current study the following recommendations suggested:

1.Preoperative information for the patient confronted with breast cancer should include possible psychological effects of cancer diagnosis, surgery, and other treatment.

2.The process of deciding between the planned modified radical mastectomies should take into consideration the influence of the intervention on the quality of patients' future life.

3.The women should be encouraged to communicate her problems and seek professional help.

4.Screening measures could help to evaluate the individual need for psycho-oncological treatment.

5.Develop a health education program for women after modified radical mastectomy and their family management of the psychological & physical problems.

- Replication of the study using a larger sample size of patients recruited from different geographical areas to generalize the results

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