

# Awareness of Breast Reconstruction Services in Salmaniya Medical Complex among Females who undergo Mastectomy

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## Abstract

Females are sensitive about the appearance of their body. The loss of an important organ because of breast mastectomy can be a source of immense psychological trauma. Breast reconstruction surgery is well known since two decades; however, it has not been fully utilized by females who underwent mastectomy for breast cancer.

The objectives of this quantitative study are:

- (i) Measuring the level of awareness amongst breast cancer patients about breast reconstruction surgeries in SMC.
- (ii) Measuring the willingness of breast cancer patients to perform reconstruction post-mastectomy.
- (iii) Measuring the willingness of immediate reconstruction amongst female breast cancer patients who elect to go for breast reconstruction.

The findings from this study showed that some of the factors that may contribute to the reduced use of reconstructive surgery post-mastectomy including lack of awareness about the availability of this service, the misconception that the patient and the surgeon have towards reconstructive surgery, and the patient believes. It is recommended to use the findings to improve mental health of females with breast cancer and help them cope and enjoy their life after mastectomy.

**Keywords:** Breast reconstruction, Breast mastectomy, Breast cancer

## Introduction

Breast reconstruction is a type of surgery for females who had all or part of a breast removed. This type of surgery restores the body image and rebuilds the breast mound. One type of breast reconstruction surgeries is call "Autologous flap reconstruction", which uses one's own skin tissue, fat, and muscle. There are two main types of tissue flap reconstruction - 'Pedicled flaps' and 'free flaps'. Pedicled flaps use skin, fat and muscle from either the back or the abdomen. A portion of tissue and muscle is tunneled under the skin from one's back or abdomen to their chest where the new breast is formed. Free flaps use skin, fat and muscle removed from the abdomen or buttocks. The arteries and veins are cut and then attached to the blood supply of the chest wall [1].

Females choose breast reconstruction, to make their chest look balanced, and permanently regain their breast shape [2]. Those who undergo mastectomy without breast reconstruction report a loss of perceived femininity, depression, anxiety, and interpersonal, marital, and sexual dysfunction [3,4].

Decisions about reconstructive surgery depend on many personal factors such as: overall health, the stage of the breast cancer, size of the natural breast, the amount of tissue available (for example, very thin females may not have enough extra body tissue to make flap grafts).

The number of breast cancer cases is increasing in the kingdom of Bahrain, with 400 new cases discovered in 2013 alone.

The kingdom of Bahrain established its breast cancer campaign in 2005. Later in 2012, a breast cancer mammography clinic was opened in SMC. The efforts were well received among the public. However, the amount of patients who opt for breast reconstruction post mastectomy is low despite it being available free of charge to patients. Therefore, awareness campaigns should include post mastectomy treatment options.

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## Methods and Data Collection

In order to get accurate data that can be transformed to useful information a quantitative design was used for data collection, and questionnaires were handed out to female breast cancer patients who had mastectomy in oncology clinic.

The reasons for selecting oncology clinic were: (i) Accurate measurements, (ii) Recover from denial stage, and (iii) The best time to take decision as patients is when looking to improve the body image and self-esteem.

Additionally, to fulfill the data collection requirements and to accomplish the Research study the following resources were used:

- Conducting surveys for patients' post-mastectomy.
- Interviewing the surgeon who performs mastectomy.
- Interviewing plastic surgeons who perform breast reconstruction.
- Interviewing dressing nurses in the clinic.
- Obtaining statistics of the new cases from 2010 - 2014 from the Medical Control Records department.

The following data were obtained from the Medical Control Records department:

Codes	2010	2011	2012	2013	7/2014	TOTAL
Breast Cancer	165/221	148/202	155/206	198/394	136/190	668/1113
Mastectomy	37	52	38	62	30	219
Breast reconstruction	20	27	29	44	34	134
New breast cancer	165	148	155	198	136	668

## Result and Findings

The study was conducted in a public government hospital and a simple questionnaire was prepared consisting of the following questions:

- 1- Do you want to regain your breast shape after mastectomy?
- 2- Did you have any information about breast reconstruction-mastectomy surgery once you were breast cancer diagnosed?
- 3- Did your surgeon provide you with any information about breast reconstruction surgeries that are available in public government hospital?
- 4- If you want reconstructive breast surgery, when do you prefer to have it?

The average number of breast cancer patients who attend the oncology clinic are 30 to 50 patients. The oncologist doctors will follow up the post-operative cases in the clinic such as breast conservation surgery, lumpectomy, or segmental mastectomy, breast mastectomy and advanced stages of breast cancer. The study included only post breast mastectomy, and other cases were exempted from the study, for this reason the sample size was smaller.

Total cases were only 66 participants.

Date of starting distributing the questionnaire 21-9-2014

Date of completing distributing the questionnaire 13-10-2014

The study took 8 months to complete.

As indicated in the Figure 1

- 56% of the participants were 50 years old or above of their

ages, 29% were between 49-40 years old and 15% were 30-39 years old.

- There is a strong relationship between the age and the incidence rate of breast cancer.
- Females who are 50 years or above have the highest possibility of contracting breast cancer.

Figure 2 indicates the marital status of the participants:

- Most of the participants (87%) are at the age of 50 or above, and are married.
- The married cases are more demanding for breast reconstruction as mastectomy causes a loss of perceived femininity, as well as interpersonal and sexual dysfunction.

Figure 3 shows that the majority of the participants (49%) are

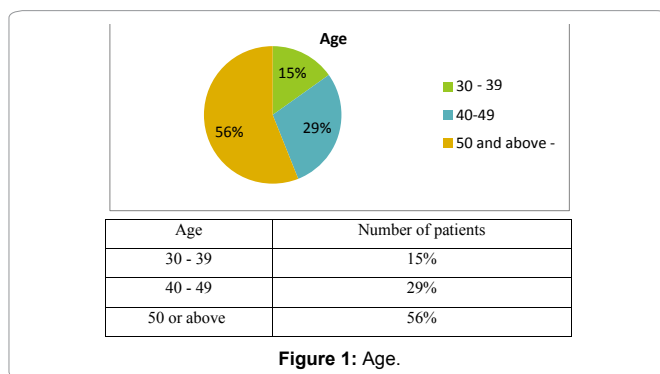


Figure 1: Age.

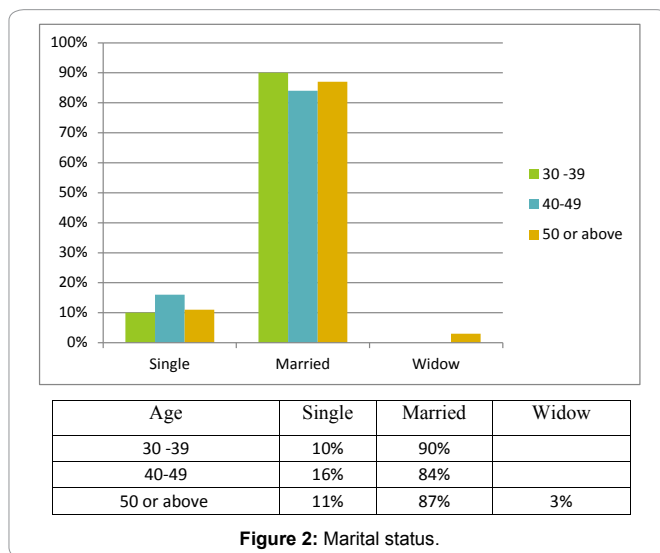


Figure 2: Marital status.

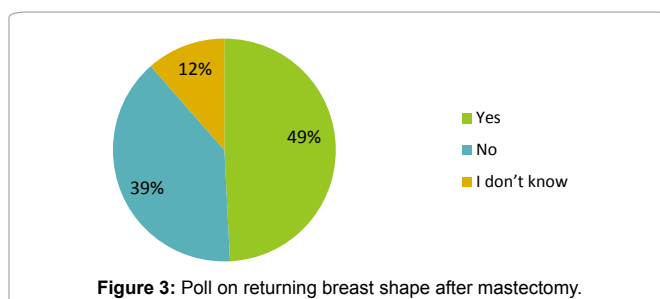


Figure 3: Poll on returning breast shape after mastectomy.

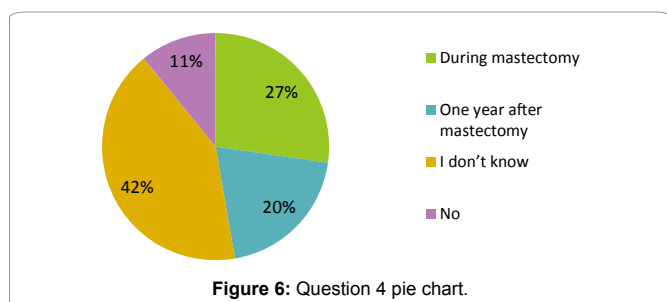
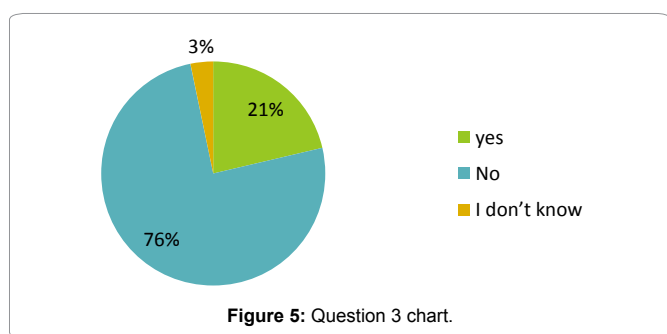
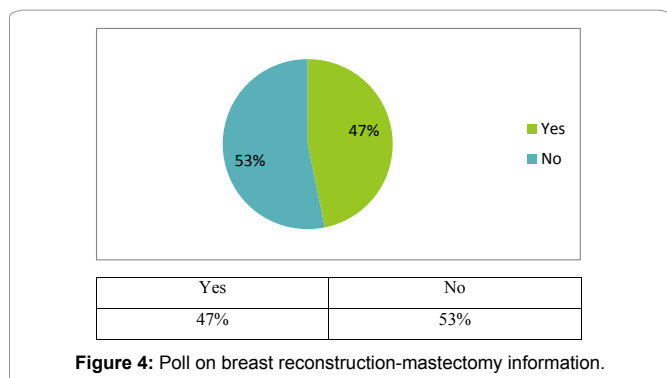
willing to regain the breast shape after mastectomy and had insisted to have a breast reconstruction-mastectomy surgery for improving the self-esteem.

Figure 4 shows that (53%) of the sample did not have any information about breast reconstruction-mastectomy surgery when they were diagnosed. others got their information over the Internet or from other consulting doctors. This indicates that females are considering moving along in restoring their body image.

Figure 5 shows that (76%) claim that the surgeon was not providing all the options to the patients for all types of breast reconstruction which are available in the hospital.

However, 21% of the participants positively acknowledged that they have received the information regarding breast reconstruction.

There are different opinions from the perspective of the participants regarding breast reconstruction. While some of them (27%) preferred to attempt the surgery during the mastectomy, others (20%) preferred to have breast reconstruction after one year. Additionally, it has been found that a large number of participants (42%) were not sure or have not decided about doing the surgery.



Yes	No	I don't know
49%	39%	12%

**Table 1:** Question 1 table.

Yes	No	I don't know
21%	76%	2%

**Table 2:** Question 3 table.

During mastectomy	One year after mastectomy	I don't know	No
27%	20%	42%	11%

**Table 3:** Question 4 table.

### 1- Structured Interview

The following are the points that have been stated in the structured interview concerning breast cancer:

- - The awareness of breast reconstruction among female breast cancer patients in the Kingdom of Bahrain is very poor.
- Only few patients knew about it.
- The plastic surgeons are getting less referral from mastectomy surgeons although there are two plastic surgeons available in SMC.
- The breast reconstruction started in SMC in 2003.
- The most common type of breast reconstruction is the Implant (simple and desirable).
- The other types are Latissimus dorsi flap with or without implant, and TRAM flap.
- The option for selecting depends on cancer type and stages.
- 30% of the patients have performed breast reconstruction, and only 25% of those patients developed complications such as wound Necrosis (which is very common).
- This can be managed by wound debridement, and the breast reconstruction can take place when the wound is healed.

### 2- Surgeon Interview

- The younger the breast cancer patients are planning for mastectomy the more they are reporting a loss of perceived femininity, depression, anxiety, and Psychological Trauma.
- There is a lack of awareness regarding breast reconstruction surgery during mastectomy.
- Patients are offered the options and timing (immediate or delayed) for breast reconstruction based on the tumor type, size, stage, grade, age, body built, Hyperlipidemia, performance, smoking and blood vessels, the lower grades of breast cancer had better outcomes.
- Most of the complications develop after radiotherapy as it affects the blood vessels and that lead to destruction of the flap.
- No statistics are available in the hospital.
- The service is free of charge and is available in the hospital,

but we need to improve patient awareness by establishing multidisciplinary breast team including Surgeon, Plastic, Oncologist, psychiatry, nurse counselor and breast nurse coordinator.

### 3- Interview with Nurse Specialist in dressing room in surgical clinic

- Most of the patients who undergo immediate (Abdominal flap) breast reconstruction during total mastectomy are around 40 years.
- In 2013, one case developed fat necrosis post immediate/direct (Abdominal flap) breast reconstruction out of total of 44 cases.
- In 2014, 3 cases developed partial necrosis out of 34 cases until October.
- The management plan for complications post (Abdominal flap) breast reconstruction after total mastectomy is, dressing for 6 weeks with Aquacell and Inadine. Promoting the healing process of necrosis tissue using promogran Prisma is very effective because it contains collagen.

### Conclusion

In conclusion, no previous survey has been done in the Kingdom of Bahrain regarding the awareness of breast cancer reconstruction surgeries. Breast reconstruction surgery improves the body image and self-esteem after breast mastectomy. Out of many reasons for lack of awareness of the cancer and its reconstructive options which is apparent from the survey. Females undergoing treatment of breast cancer must be given the option for reconstruction and the operating surgeon has a big role to play in dispensing this awareness. Breast reconstruction is not a separate procedure, but a part of complete treatment of breast carcinoma, and therefore plastic surgeons should be actively involved in the treatment. The society's awareness should be improved regarding breast reconstruction services via the media such as television, radio, newspaper and other telecommunication services and all the health societies and facilities available in the country.

### Recommendations

- To establish multidisciplinary breast cancer team including General Surgeon, Plastic surgeon, Oncologist, psychiatry, nurse counselor and breast nurse coordinator.
- To establish breast care nurse coordinator position to help breast cancer patients' with their necessities from the time of diagnosis.

- To increase awareness among breast cancer patients through Lectures/ Seminars /demonstrations, Brochures /Booklets, video tapes and group discussion.
- To Encourage breast cancer patients to opt for breast reconstruction –mastectomy.
- To improve community awareness regarding breast reconstruction post mastectomy by utilizing the media and breast reconstruction awareness day.

### Breast Care Nurse (BCN) roles

- Providing continuous care throughout the treatment process.
- Coordinating care from the moment a patient is diagnosed with breast cancer through treatment and following up. Referral to other services if needed, acting as a link with all members of the treatment team and organizing support when patients are discharged home.
- Explaining the process during hospitalization and paying visits during the admission in the hospital.
- Ongoing counseling, Providing information and educational resources, assistance with obtaining prosthesis, psychosocial support.
- Providing Support relating to all aspects of breast care.

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