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Patients' satisfaction and quality of life after breast augmentation with implants

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Suzan Fazil Jabber [1*]

Abstract

Background and objective: Breast augmentation surgery is a common procedure worldwide to treat tiny or atrophied breasts that significantly influences women's lives. Thus, we aimed to find the impacts of breast augmentation in women who underwent surgery in concerning to their satisfaction and quality of life.

Methods: A prospective and analytical study was conducted on 40 married women who underwent breast augmentation surgery using smooth silicone-filled implant, from April 2020 to June 2023. The participants completed the breast Q-questionnaire voluntarily. The patient-reported surveys were performed out through the internet, over the cell phone and individually. The data was analyzed using IBM SPSS version 26 software. Then, 3 sections and criteria of the breast Q-questionnaire were reported, including breast satisfaction (17 items), psychosocial well-being (9 items), and sexual well-being (5 items). Statistical analysis was performed at the inter-group and individual levels by t-test. The statistical significance was set at 0.05.

Results: The studied patients stated that breast satisfaction significantly improved from 32.12 ± 0.11 preoperatively to 77.54 ± 0.18 postoperatively (*P* value <0.0001). Similar significant improvements were also seen for both psychosocial/sexual well-being from 28.5 ± 0.16 preoperatively to 74.65 ± 0.39 postoperatively (*P* value <0.0001) and 29.9 ± 0.15 preoperatively to 62.3 ± 0.05 postoperatively (*P* value <0.0001), respectively.

Conclusion: Using smooth silicone-filled breast implants considerably improves women's satisfaction, as well as psychological/sexual well-being following aesthetic breast augmentation.

Keywords: Breast augmentation; Breast Q-survey; Psychological well-being; Self-satisfaction; Sexual well-being.

Introduction

Females are highly concerned about the size and shape of their breasts. Breast augmentation is the focus of many females who have small or atrophic breasts. According to the Worldwide Society of Aesthetic Plastic Surgery, around 1,800,000 operations were carried out globally in 2019.[1] Variable procedures and techniques have been developed for breast augmentation, but using implants remains the most popular procedure, and it gives satisfactory results.[2] A paragraph has been added in the discussion part mention the limitation of the study based on your respected comment.

Breast augmentation first appeared in the 19th century, and efforts were made to use fat to fill in the mastectomy site. The first breast implants were made of silicone gel wrapped in silicone elastomere in 1961.[2,3] A short time later, saline implants, which are made of saline with an elastomere shell, were released in 1965. These two major implant forms are still in use. Currently, the surgeon's opinion and the patient's preference for the implant's appearance and feel influence the choice

[1] Department of Clinical Medical Sciences, College of Medicine, University of Sulaimani, Sulaimaniyah, Iraq.
Correspondence: suzanfaziljaber@yahoo.com

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of implant type, with manufacturers constantly enhancing the product's quality.[3,4] Historically, the surgeon's perspective was the main point used to assess the outcomes of breast augmentation. Personal patient sentiments are becoming increasingly important and play a big role in how the outcome is assessed.[3,4] According to Randquist et al., physicians' general views on scars were consistent with what was believed by their patients. The doctors' perspectives, however, differed little from the patients in that regard.[4]

Previously, Murphy et al.,[3] Alderman et al.,[5] and Taylor et al.[6] has demonstrated the advantages of breast augmentation procedures in terms of enhanced self-worth, marital satisfaction, and interpersonal connections. In recent years, patient reports and how surgery affects the satisfaction of life have been given a lot of importance throughout studies on plastic surgery.[7-9]

A patient-reported outcome tool called breast Q-survey assesses the effects of reconstructive and cosmetic breast surgery (i.e. augmentation, reduction/mastopexy, mastectomy, reconstruction, and breast conserving therapy) on patient satisfaction with breasts, outcome, and care, as well as pre/postoperative health-related quality of life (HR-QoL), including physical, psychosocial, and sexual well-being.[7,10,11] Thus, this study is designed to ascertain women's QoL and psychological/sexual well-being following breast implantation for the purpose of augmentation.

Methods

This prospective and analytical study was performed on 40 married women from April 2020 to June 2023 at the Royal Private Hospital, Sulaimaniyah, Iraq, using a breast Q-questionnaire. Breast Q-questionnaire was developed by Dr. Pusic Klassen and Dr. Cano in 2009, and the nit was invented by Memorial Sloan-Kettering Center and Columbia University.[15] Science that time it became a validated patient reported outcome (PRO) instrument specific to breast surgery. The breast Q-questionnaire was composed of 3 sections (31 questions), including breast satisfaction (17 items), psychosocial well-being (9 items), and sexual well-being (5 items).

Participants' basic data was collected, and they were prepared for breast implant under general anaesthesia using smooth silicone-filled implants (brand, country) at Royal Private Hospital, Sulaimaniyah, Iraq. The surveys were carried out online, over the phone, and in person. The participants answered the questions before and three months after the procedure. The satisfaction with breasts portion tries to assess satisfaction with breast size, shape, sense of touch, and body form with and without clothing. The psychological well-being part covers attractiveness, self-esteem, and social value, while the sexual well-being part takes on the individual's feelings of attractiveness, self-esteem, and comfort during a sexual relationship.

The Ethical Committee at the College of Medicine, University of Sulaimani, Sulaimaniyah, Iraq, approved the proposal for this study. Written informed consent was obtained from the participants before the commencement of the study. Statistical Package for Social Science (SPSS, Chicago, IBM, USA, version 27) was used for data analysis. *P* value less than 0.05 was considered as significant.

Results

Three-quarters of the participants (75%) completed the postoperative survey. The postoperative questionnaire was filled at various intervals between 2 and 18 months. The average age of the patients was 32.2 ± 6.33 years (ranged from 22 – 45 years), while the average implant size was 280.2 ± 55.2 cm^3 (ranged from 200 – 320 cm^3), and the concurrent mastopexy was done for only eight patients (3.2%). (Table 1)

Studied patients showed significant breast satisfaction improvement from 32.12 ± 0.11 preoperatively to 77.54 ± 0.18

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postoperatively (*P* value <0.0001). Similarly, significant improvements were found for both psychosocial/sexual well-being from 28.5 ± 0.16 preoperatively to 74.65 ± 0.39 postoperatively (*P* value <0.0001) and 29.9 ± 0.15 preoperatively to 62.3 ± 0.05 postoperatively (*P* value <0.0001), respectively. In contrast, there was a significant decline in physical well-being from 87.6 ± 0.19 preoperatively to 78.9 ± 0.21 postoperatively (*P* <0.0001), as shown in Figure (1). After surgery, postoperative satisfaction with the surgeon had a mean value of 80.19 and a median of 90. (Table 2, Figure 2&3)

Table 1 Patient demographics and surgical Details

Variables	Mean ± SD
Age (years)	32.2 ± 6.33 (22–45)
Implant size (cm3)	280.2 ± 55.2 (200–320)
Concurrent Mastopexy	8 patients (3.2%)

Table 2 BREAST-Q scores preoperative vs. postoperative

BREAST-Q Category	Preoperative Mean ± SD	Postoperative Mean ± SD	*P*-value
Breast Satisfaction	32.12 ± 0.11	77.54 ± 0.18	<0.0001
Psychosocial Well-being	28.5 ± 0.16	74.65 ± 0.39	<0.0001
Sexual Well-being	29.9 ± 0.15	62.3 ± 0.05	<0.0001
Physical Well-being	87.6 ± 0.19	78.9 ± 0.21	<0.0001

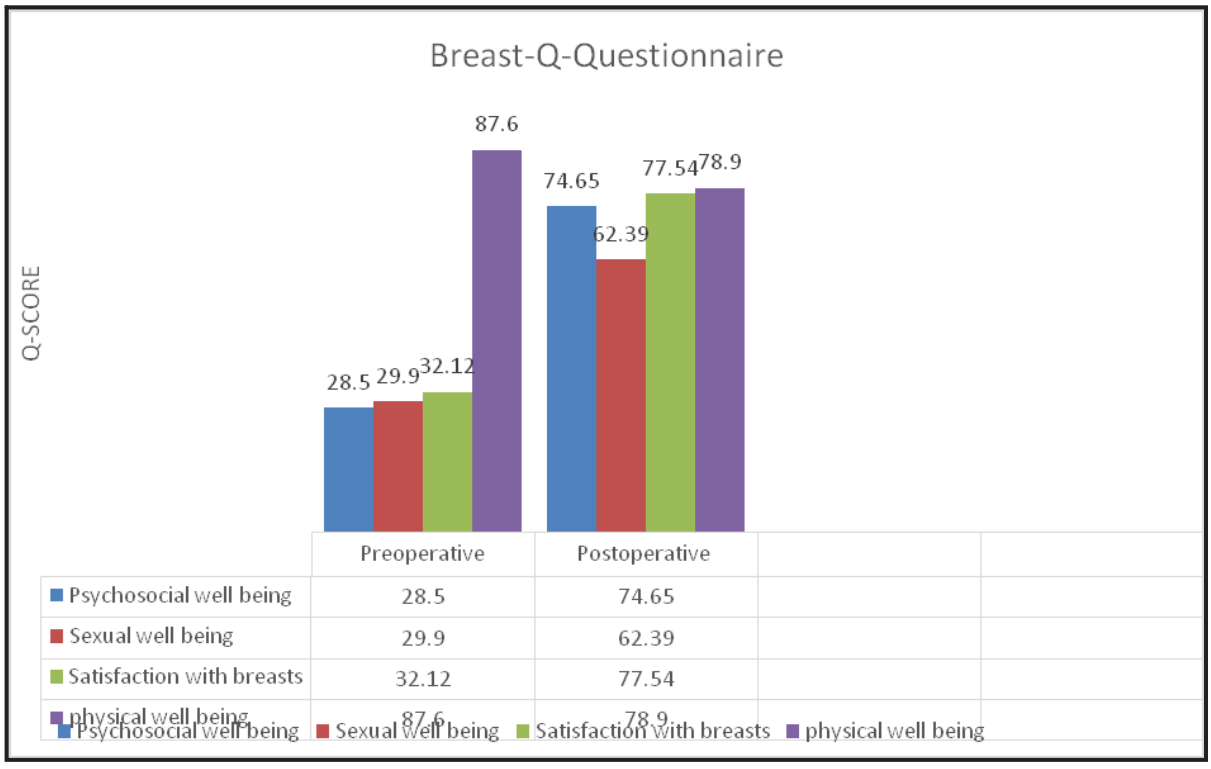

Figure 1 Breast Q-survey results among patients who received implants

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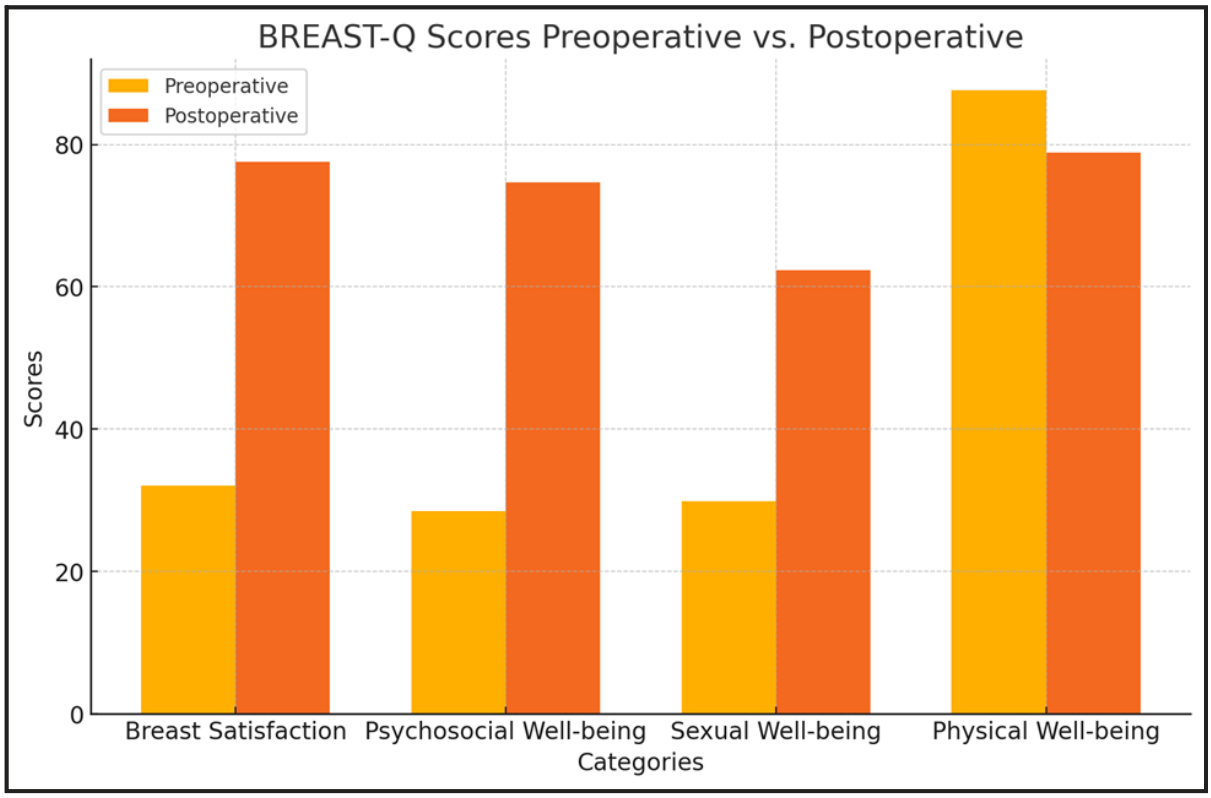

Figure 2 Improvement in BREAST-Q Scores

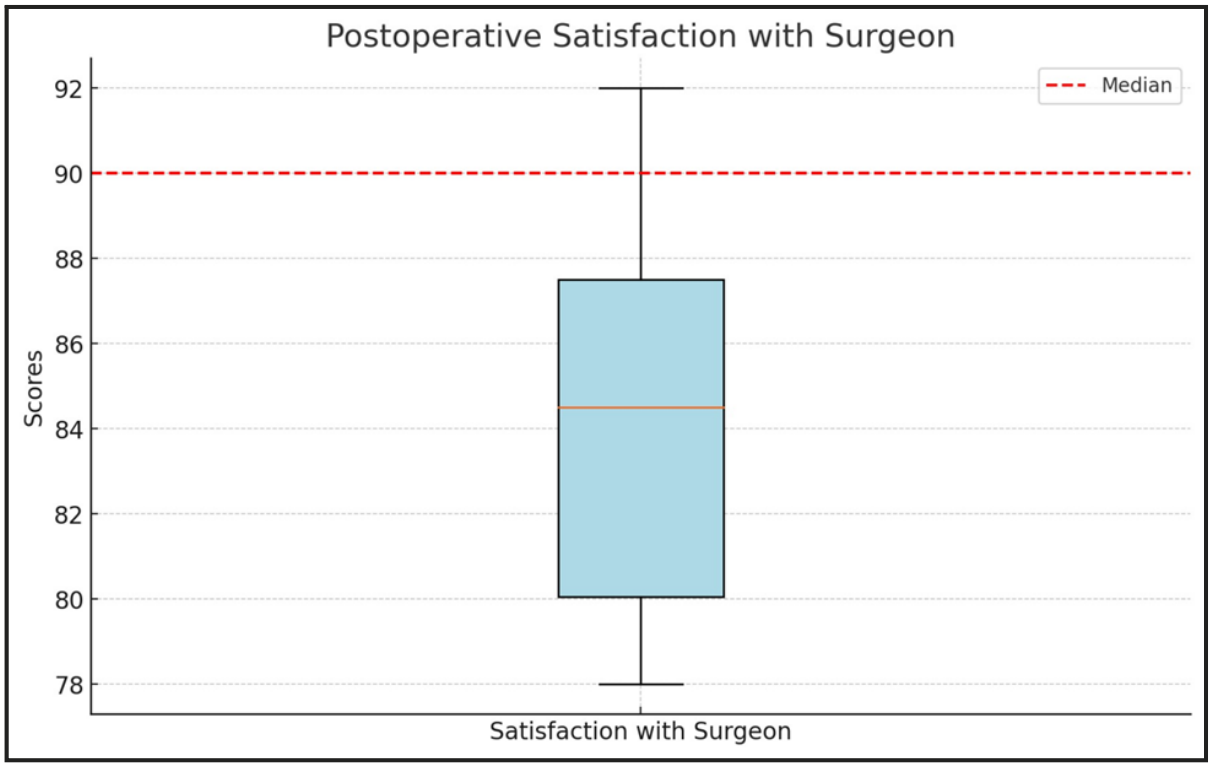

Figure 3 Box plot showing the distribution of postoperative satisfaction scores with the surgeon, with the median value marked

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Discussion

This study's findings show significant gains in breast satisfaction, psychosocial well-being, and sexual well-being after breast augmentation surgery with smooth silicone-filled implants. These findings are consistent with prior research and add to the growing body of evidence supporting breast augmentation's positive impact on quality of life (QoL).

Comparison to Previous Studies:

Breast satisfaction increased significantly from 32.12 ± 0.11 preoperatively to 77.54 ± 0.18 postoperatively (*P* <0.0001). This is consistent with the findings of Noorizadah et al. and Jawanrudi et al., who also reported significant improvements in breast satisfaction using the BREAST-Q survey after augmentation mammoplasty. Similarly, psychological and sexual well-being improved significantly, supporting the findings of Alderman et al.[6] and Flanagan et al,[13] who discovered considerable improvements in these areas following surgery.

Noorizadah et al.[9] found a similar improvement in breast satisfaction, demonstrating the BREAST-Q survey's robustness as a method for collecting patient-reported outcomes. Jawanrudi et al.[8] similarly employed the BREAST-Q survey and discovered consistent improvements in psychosocial and sexual well-being, which supports our findings that breast augmentation improves multiple aspects of quality of life.

Our findings are consistent with those of Alderman et al. and Flanagan et al., who used the BREAST-Q to show significant improvements in breast satisfaction, psychosocial well-being, and sexual well-being. These studies support the BREAST-Q's reliability and validity as a complete instrument for assessing breast surgery Comparison to Other Assessment Tools:

In contrast to the BREAST-Q, various assessment instruments, such as the breast-related symptom questionnaire, the Short Form-36 (SF-36), the Rosenberg Self -Esteem Scale, and the Brief Symptom Inventory, have been used to evaluate breast augmentation results. While these instruments have been linked to improved quality of life and enjoyment following surgery, they lack the condition-specific focus of the BREAST-Q.[10,12]

For example, the SF-36 is a general health assessment that may not include particular concerns about breast aesthetics and surgery. The Rosenberg Self-Esteem Scale and Brief Symptom Inventory assess psychological symptoms and self-esteem, but do not consider the physical and aesthetic aspects of breast augmentation. In contrast, the BREAST-Q includes modules for breast satisfaction, psychological well-being, and sexual well-being, making it a more comprehensive and accurate tool for assessing the results of breast augmentation.[12,13]

Physical Wellbeing:

Interestingly, our study found a substantial decrease in physical well-being from 87.6 ± 0.19 preoperatively to 78.9 ± 0.21 postoperatively (*P* <0.0001). This drop can be related to the surgery's immediate postoperative discomfort and recuperation period, as well as the dual-plane insertion approach used in this study. This discovery is similar with the findings of other studies, who have reported postoperative physical discomfort as a transient but noticeable side effect of breast augmentation.

Implications and recommendations:

Breast augmentation has a favorable impact on psychological and sexual well-being, emphasizing the necessity of considering patients' aesthetic issues and self-esteem while planning surgery. Surgeons should provide comprehensive preoperative counseling to help patients set realistic expectations and prepare for the postoperative recovery phase, particularly in terms of physical discomfort.

The transitory reduction in physical well-being emphasizes the importance of good pain management measures and postoperative care in improving overall patient satisfaction. Future studies could look into interventions to reduce

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postoperative discomfort and speed up recovery.

All cosmetic procedures aimed to enhance the patient's QoL by increasing their confidence and sense of self.[11,12] Since every individual has a subjective definition of beauty, it is crucial to accurately comprehend the patient's beliefs beforehand and have a conversation with them in order to accomplish this goal.[9,13] Postoperative assessments and evaluations of patients are also very important, as they provide a picture of the patient's level of contentment with the collaborative planning, information, treatment, and result. To collect all these data, a reliable, verified, and globally valid survey instrument is needed.[4,5] Because the breast Q-augmentation module has been used successfully in several prior studies and is useful for comparing the results to those of other investigations, we decided to use it.[11]

When comparing the breast Q approach to other methods that have been used to evaluate and investigate the effects of breast augmentations, these methods include the breast-related symptom questionnaire, the short form-36, the Rosenberg Self-steam scale, and the Brief Symptom Inventory.[6,8,12]

Despite the fact that these techniques have also been linked to increased QoL and happiness after breast augmentation surgery, the assessment instruments used have not been condition-specific. However, because the Q-breast approach is more accurate at questioning patients and focuses on every element of psychology, it could be a more reliable instrument for confirming the results.[9-11]

The most popular cosmetic surgical operation is still breast augmentation, which also improves QoL.[6,7] The high satisfaction rates reported in the literature also support this with breasts significantly improved using breast Q-surgery.

Also, we observed that physical well-being decreased significantly after the surgery. This procedure involved skin incisions that caused discomfort to the point of full recovery, mainly due to the dual plane I pocket in the sub-muscular area, where the implant was inserted, which will be painful soon after surgery.[13,15] Later on, this limitation was well tolerated, especially after reassurance by the surgeon and the wound healing was completed.

Limitations:

One of the primary limitations of this study is the relatively small sample size of 40 participants. While this sample size is sufficient for providing preliminary insights and detecting significant changes within the study group, it may limit the generalizability of the results to the broader population. Larger sample sizes would provide more robust estimates and enhance the external validity of the findings. Additionally, the study was conducted in a single private hospital, which may limit the diversity of the sample. Future research should aim to include participants from multiple centers and diverse backgrounds to enhance the generalizability of the findings.

Another limitation is the variability in the follow-up period, which ranged from 2 to 18 months. This wide range could influence the consistency of the results as patients' experiences and recovery trajectories can differ significantly over time. Patients assessed at the 2-month mark may still be in the early stages of recovery, while those assessed at 18 months may have fully adjusted to their new implants. This variability could lead to differences in reported satisfaction and well-being, potentially introducing bias. Future studies should aim for more uniform follow-up periods to ensure consistency and comparability of results.

Conclusion

Using the breast Q-survey technique, we found that cosmetic breast augmentation with smooth silicone-filled breast implants considerably improves women's psychological/sexual well-being with positive self-satisfaction.

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Competing interests

The authors declares that she has no competing interests.

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