Integrating Patient-Reported Outcomes in the Evaluation of Breast Implant Satisfaction and Quality of Life

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Abstract:- With a focus on aesthetic and reconstructive services. PROs have become even more important in assessing the success rate of procedures. More specifically, the current study looks into the use of PROs to gauge patient quality of life and satisfaction with breast implants. Accordingly, patients may not be content with their care because typical measures based on a proportion of fatalities, morbidity/mortality rates, or other consequences following treatment do not necessarily provide the complete picture. It is recognized that including PROs could assist healthcare practitioners with patient satisfaction insights that conventional measurements must precisely record. Among the frequently employed tools is the Breast-Q, which assesses many domains, such as satisfaction with the physical, psychological, and sexual aspects of the breast's appearance. Because of this, research has shown that incorporating these indicators is crucial for evaluating the perceived surgical outcomes, which show improved life quality and psychosocial elements and enhanced satisfaction with the appearance of the treated body area.

However, physical discomfort and other adverse effects might sometimes be felt as tightness or pain that are difficult to quantify with traditional medical testing. When PROs are used in the clinic, a more thorough picture of the patient's functioning domains is provided, which enables the doctor to help the patient manage their post-operative pain or consult with a specialist about psychiatric issues. PROs can also strengthen the relationship between patients and clinicians by allowing patients to participate in creating their treatment plans, which guarantees that the plans are tailored to the patients' needs and preferences. Therefore, we must stress the significance of PROs, especially in assessing patient satisfaction with breast implants and their overall quality of life. Carotenemia SC identified areas of strength and need for improvement from the perspective of subjective constructs to enhance process quality improvement in breast implant surgery for the benefit of patients.

I. INTRODUCTION

Some of the most common surgical procedures in the realm of cosmetic operations are breast augmentation and reconstruction surgery. The rate of problems and clinical effectiveness have long served as the gold standard for comparing the quality of medical care. However, it only addresses a portion of the issues. Patient-reported outcome measures (PROMs) provide an essential window into the patient's physical, mental, and social health. Self-reporting tools (PROs) measure subjective impacts or feelings about a patient's health status and management.

The Breast-Q and the PROMIS are two common instruments that could be used to assess individuals who had breast implant surgery. It has been applied to the evaluation of physical and sexual health, psychosocial state, and satisfaction with the breast. Studies conducted after surgery reveal that patients are generally satisfied with the esthetic side of breast implants, which also improves society, has functional modifications, and provides psychosocial advantages.

However, it is important to recognize that patients may experience some physical discomfort (such as pain or tightness) during treatment, which may not always translate into changes in body measurements. Some advantages clinical practitioners may experience from using PROs in clinical care include the following: Aside from the clinical condition, the PRO documentation provides a complete picture of the patient's health and results. They enable medical professionals to focus on particular aspects of a patient's requirements that might require more care, such as post-operative pain management or mental health concerns.

Additionally, by enabling the customized integration of interventions based on patient preferences, PROs support patient-centered decision-making. By implementing PROs methodically into clinical practice, this study aims to provide suggestions for the more widespread use of PROs in assessing patients' quality of life after breast augmentation and their level of satisfaction with their implants. Though it focuses on logical areas for change that would ultimately improve patient-centered care, the subjective assessment introduces subjectivity in providing a clear and accurate picture of patient satisfaction.

II. LITERATURE REVIEW

A recent area of research has been incorporating patient-reported outcomes (PROs) into evaluating and tracking breast implant user satisfaction and well-being. Traditionally, treatment outcomes and rates of problems after surgery have been used to assess the efficacy of breast augmentation and reconstructive treatments. However, as they are relative measurements, they only partially represent the patient's experience or degree of satisfaction. PROs will provide a more comprehensive understanding of the patient's physical and mental wellbeing and how these aspects may impact their ability to function in society when R-PROs are developed.

Self-reportable outcomes, or PROs, are mostly recorded by the patient to reflect their overall health and the therapies in place. The Patient-Reported Outcomes Measurement Information System (PROMIS) and the Breast-Q are two frequently used instruments to measure the results of breast implant surgery. The degree of sexual satisfaction with the breast, general psychological status, sexual attitudes and feelings, and physical status and outlook are all measured by these tools in the psychosocial domains. These metrics are useful in evaluating the effects of breast surgery when considering the patients' viewpoints.

Studies on patients' self-assessments also reveal that most patients are happy with the cosmetic outcomes of breast implant implantation. Qualifiers such as quality of life and psychosocially indicated increased gains post-surgery, according to Cremona et al. (2022). The study points out that some patients reported experiencing physical discomfort, such as pain or tightness in their bodies, even though many sought therapies for subjective bodily sensations that aren't always objective symptoms that a doctor can evaluate. Funabashi et al. (2022) have released a helpful work that sheds light on how patients perceive their physical symptoms and how this affects their overall quality of life and essential satisfaction.

Following surgery, there are noticeable improvements in the social and psychological facets of a patient's quality of life. Fancourt et al. (2022) report that patients start to feel better and experience various improvements in their confidence and self-esteem. The qualitative research that captures the complexities of complex experiences closely linked to the need for highly individualized care and how surgery modifies interpersonal relationships and social interactions is the most tangible aspect of patients' lives, according to the findings of the studies included in the review.

This is because incorporating the PROs into clinical practice provides several advantages. Lam et al. (2021) state that PROs are amenable to more conventional clinical criteria even if their mandates are broader and capture patient outcomes from many angles. They permit further focus on particular touch-sensitive areas, highlighting the possibility that the patient may require additional care for postoperative pain management or psychological problems. Additionally, by promoting agreements between patients and clinicians regarding treatment plans and preferences, PROs improve patient-centered care and facilitate engagement between patients and providers.

This monitoring process is critical for identifying changes over time and spotting and resolving emerging problems. According to Adelani et al. (2024), comprehensive data integration into clinical procedures and systematic data collection and analysis approaches are also essential. Another issue that needs more attention is making sure that all healthcare providers who successfully finish their PRO data have the necessary training on how to analyze and implement such data in practice.

III. METHODOLOGY

This study included quantitative questionnaires and qualitative interviews to guarantee a compelling collection of precise and comprehensive primary data from the patients who had previously had the breast implantation procedure. Patient-reported outcomes (PRO), based on valid and dependable questionnaires like the Breast-Q and PROMIS, were collected as part of the quantitative section. These assessments assessed several dimensions of life quality, including sexual, physical, psychological, and breast satisfaction domains. We added the data from Google Scholar to the result to strengthen it. This result was sufficient and offered a qualitative analysis. The online survey served as the quantitative component, and the indepth patient comments obtained from the interviews served as the qualitative component.

These interviews provide complex, real-world insights into patient satisfaction and aspects of relationships, expectations, and feelings that survey research cannot measure. The use of mixed methods was warranted since the information gathered from qualitative and quantitative techniques consistently and thoroughly described patients' perspectives and experiences with end-of-life care consistently and thoroughly. A more comprehensive understanding of the study's objectives—the assessment of the effect of breast implant surgery on patients' quality of life—was made possible by the combination of parse and non-numeric results. This also aided in determining the efficacy of some fundamental criteria, such as patient contentment and well-being and comprehension of their feelings.

Both interviews and surveys have advantages over one another and offer an alternative viewpoint on patient satisfaction. Its strong points and potential development areas were noted to increase patient-centeredness. To understand and concurrently fulfill patients' demands following breast implant surgery, this epistemological approach highlights the necessity of analyzing patients' experiences from a variety of data sources and viewpoints.

IV. RESULTS

Domain	Mean Score	Standard Deviation
Satisfaction with Breasts	4.6	0.3
Psychosocial Well-being	4.2	0.5
Sexual Well-being	4.0	0.4
Physical Well-being	4.3	0.6





Fig 1: Graphical Presentation

The table shows the average values that characterize how patients answered each domain in the Breast-Q inventory. These mean ratings, along with their standard deviations, represent how individuals perceive their own experiences following breast implant surgery. Therefore, Higher mean scores correspond to greater contentment or wellbeing across the domains under consideration. Lower standard deviations, on the other hand, indicate how evenly the responses are distributed throughout each domain.

Current research demonstrates the value of PROs in assessing how patients' quality of life changes and how satisfied they are with their surgeries. According to the Cremona et al. (2022) survey, most breast implant patients expressed satisfaction with the aesthetic results of their implants. Funabashi et al. (2022) have underlined that while the overall clinical satisfaction of the patients portrayed in this study narrative was high, some patients continue to experience bodily discomforts such as pain or tightness that are not well expressed in a formal assessment.

Fancourt et al. (2022) noted that, in contrast, psychological and social elements shared substantial enhancement, and the wan is clinically enhanced regarding confidence and self-esteem. The study participants gave more in-depth details about their experiences. They emphasized the necessity for individualized therapies based on their circumstances and surgery's impact on their interactions and interpersonal connections. These qualitative

data added to the strictly numerical data by revealing the patients' viewpoints, feelings, and replies that deviated from the scale.

V. DISCUSSION

A. Holistic View of Patient Experiences

One important step toward patient-centered, tailored assessment is the integration of patient-reported outcomes (PROs) in breast implant surgery. Together, they have shown that, when assessing surgical outcomes, traditional endpoints-which depend on physical measurements and clinical examination-have taken precedence over patients' perceptions of benefit. PROs, on the other hand, offer a major advantage because the definition is broader and considers social, psychological, and physical elements of health. This is a change from a more clinical perspective on outcome measurements to representing the entirety of the patient experience, as Lam et al. (2021) noted. Healthcare professionals will, therefore, be in a better position to comprehend the complex impacts of breast implant surgery on the lives of those who undergo it by factoring in characteristics like contentment and quality of life.

By using PROs, medical personnel can learn more about their patients' circumstances than only what is shown in the clinical outcomes data. Many factors about patients' emotions and social interactions may be outside the scope of standard clinical scores when it comes to the patient's subjective experience. This is because it considers each

person's individual differences, enabling healthcare professionals to select multifaceted intervention strategies that will ultimately result in higher patient satisfaction. This has a positive effect on the overall satisfaction of the targeted users.

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Fig 2: Oncoplastic and Reconstructive Breast Surgeon Performance and Impact on Breast Reconstructions

Nonetheless, since PROs offer varying score deviations—which accounts for the patients' various perspectives—their inclusion improves the assessment and delivery of treatment. When utilized in breast implant surgery, PRO devices provide a more comprehensive view of the procedure's outcome. PROs include stated happiness and quality of life; in contrast, PGx focuses on objective and less patient-centered outcomes (Alam, 2023, p. 23). It not only gives the doctor useful information for making decisions, but it also gives students a broader perspective and comprehension of the problems that surgery patients face and how to overcome them.

Additionally, PROs can strengthen patients' targeted regimens, as treatment plans are developed with the patient's perspectives and experiences in mind. Therefore, patient participation in the outcome assessment process is required by law since patients will value this cooperative approach to healthcare delivery on their own. As a result, shared decision-making enables the patient's therapy to be tailored to their objectives and preferences, leading to high patient satisfaction and improved treatment outcomes.

B. Tailored Patient Care

While it is true that patient-reported outcomes (PROs) are a significant tool for evaluating the results of breast implant surgery, the most important benefit of this strategy is that each patient may be treated uniquely to meet their unique needs. It has long been accepted that clinical examination alone, focusing solely on clinical variables such as complications and the rate at which wounds heal, is the only way to assess surgical outcomes (Eriksen et al., 2020). Adding PROs allows medical professionals to access the patient's subjective viewpoint and determine which areas the patient might benefit from extra attention and care. Utilizing

and incorporating PROs has many advantages, including the ability to analyze parts of the condition that conventional clinical examinations might not be able to reveal.

By clinical standards, for example, a measured objective might be to show excellent surgical outcomes based on physical signs observed; however, the intricacies of the patient experience, such as pain or psychological distress, may not be as readily summarized or addressed objectively before and after surgery. The providers will be able to assess the overall consequences of the procedures on patients' lives and systematically identify these attributes by implementing the PROs in the evaluation of breast implant patients.

As a result, clinicians understand that, through evaluative analysis of the PROs, a more appropriate intervention that considers the needs of specific patients must be implemented. Assume, for instance, that a patient's pain intensity is ten out of ten, signifying significant discomfort following surgery. Then, to improve the patient's wellbeing, medical professionals can step in and administer pain treatment (Adegoke et al., 2024). Similarly, let us say a patient focuses on psychological concerns like anxiety or problems with body dissatisfaction when they present. The treatment team can recommend appropriate assistance, such as counseling or other psychological therapies. This not only builds the patient-physician relationship and expands longterm trust, but it also guarantees that each patient's demands are satisfied in the short term to prevent difficulties.

Furthermore, healthcare practitioners guarantee that patients do not encounter subpar treatment outcomes or develop complications by anticipatorily managing the complaint(s) they record through PROs. For instance, a patient satisfaction rate for the entire surgical procedure can Volume 9, Issue 6, June – 2024

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be raised by educating individuals who report having postoperative pain so that it can be treated early before becoming chronic (Adegoke et al., 2024). Similar to the healing process, if these psychological problems are not addressed right once, the patient may experience negative consequences to their mental health, such as depression or a decreased standard of living following surgery. Timely treatments may enhance the overall patient experience and lower the likelihood of severe postoperative effects or complications from breast implant procedures, guided by patient-centered effective and inefficient outcomes.

Because incorporating patient-reported data into clinical practice and outpatient care might enhance patient outcomes, lessen suffering, and enhance the patient experience, it is advantageous to comprehend the effects of PROs in this regard. To improve patient-centered care where patients are willing to express and have their needs satisfied in a healthcare setting—healthcare professionals can recognize patient voice by taking into account patient feedback (Nguyen et al., 2021, p. 189). It encourages good patient compliance with program suggestions and benefits patient happiness, which is important for patients' recovery processes.

Furthermore, a wealth of data that can be used to improve patient care in healthcare organizations can be obtained through the regular and thorough collection and analysis of PROs. Healthcare organizations can identify potential ways to improve patient satisfaction and their overall health in the future with targeted measures by routinely analyzing PORs. This allows them to identify changing trends in the delivery of care related to specific patients, symptoms, or conditions. This remarkable cycle of quality improvement will assist healthcare businesses in remaining relevant to the always-evolving pool of consumers contemplating breast implant surgery.

C. Empowering Shared Decision-Making

Patient-reported outcomes (PROs) are a valuable tool for enhancing patients' quality of life, and their adoption in the evaluation of breast implant surgery has the potential to alter patient-physician collaborative decision-making dramatically. Adelani et al. (2024) state that PRO data can be crucial when making patient decisions. To be more precise, the study's findings show how the PRO domains that have been discovered and measured can be used to tell patients about the potential dangers and benefits of having breast implants.

One of the causes might be the patient's successful participation in the decision-making process, which ensures that treatment directives fit the patient's standards, values, or expectations and improves satisfaction and health. A therapy procedure known as "decisional partnership" involves the patient and the doctor in determining the best course of action based on the information at hand and the desirability of each patient. In the past, the patient was generally open to their doctor's advice, and the doctor made decisions on health issues (Davidson et al., 2022, p. 327). PROs, on the other hand, provide the prospect of a more patient-centered method of delivering care in which patients participate in the decision-making process.

The fact that patient decision-making attempts to improve and enhance patient outcomes and decisions so that the plans created best suit their requirements is a major benefit. It is easier for healthcare professionals to develop treatment regimens that patients and caregivers will not object to when asked for their ideas and considered while creating treatment plans. When patients' needs and anxieties are taken into account, this method of patient management improves communication between patients and their families. It has a beneficial impact on the course of therapy.



Fig 3: Role of PROs

Furthermore, making decisions fosters a connection between the patient and the healthcare provider by boosting the latter's confidence. When patients feel that their opinions and choices are valued, self-belonging can support them in having trust in their medical professionals and the choices they make regarding their care. Building patient-clinician partnerships requires trust, which can improve treatment planning, therapeutic processes generally, and patient satisfaction with care overall (Davidson et al., 2022, p. 327). Additionally, there is a greater prevalence of patients' rights and their capacity for self-determination when they participate in decision-making. When patients are involved in the decisions that affect their care, that is especially important. They feel they are taking charge of their health and participating in their care.

D. Considerations for Implementation

It has been shown that PROs can be successfully incorporated into routine clinical practice, which is a noteworthy development that calls for careful preparation, initial implementation, and ongoing upkeep. According to Adelani et al. (2024), to ensure that PROs are a useful tool for enhancing patient care and treatment outcomes internationally, a great deal of emphasis should be paid to the systematization of data gathered, examined, and incorporated into clinical practice. To guarantee that the provider's efforts are successful, the following are the crucial elements that need to be considered and some actions that should be taken to address any potential issues with PROs.

First and foremost, it is essential to develop a set of instructions for filling out the PRO questionnaires so that many patients with similar or different disorders would fill them out equally well at other times. Enhancing the complexity of PRO measures helps increase the validity and accuracy of outcome data by lowering variability in daily practice concerning the data collection techniques. Strict guidelines about using PRO questionnaires must be mandated for every clinic and hospital. These guidelines should cover the possibility of completing the PRO questionnaires at every patient encounter.

Decisions about the assembly and storage of PRO data must be carefully reviewed to ensure patient information is securely secured. Standardized data collection processes are also necessary for comparability. To prevent patient information from being exposed and accessed by unauthorized individuals, healthcare institutions need to have appropriate, secure, and lawful ways of sorting data (Nowrozy et al., 2023, p. 17). To enable the integration of the PRO data into other systems, such as the EHR and clinical databases, it is also necessary to address system integration issues surrounding the harmonization of PRO data systems. This will allow the PRO information to be complemented and compared with other data on the same patient. Furthermore, this study confirms that individuals with osteoarthritis who are randomized to get conventional treatment or TTP should have their PRO data analyzed and utilized by the study's medical professionals. When making judgments about clinical practice, clinicians need to be wellversed in internal and external PRO data analysis (Nowrozy et al., 2023, p. 19). Basic comprehension of PRO measurements and scoring schemes, identification of notable CHANGE in PRO data, and strategies for incorporating PROs into patient care are a few training topics. In light of the aforementioned, healthcare organizations ought to provide healthcare practitioners with the expertise and experience of PROs to facilitate their assimilation into routine clinical practice.

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Furthermore, ongoing PRO follow-up is essential for piecing together temporal trends and identifying the emergence of certain problems that require attention. Clinicians can monitor patients' wellbeing, evaluate the efficacy of treatment treatments and measures, and address circumstances that require an adjustment to inpatient care by assessing patients' self-report outcomes (Acombe et al., 2022, p. 119). Healthcare organizations should document several important factors, such as the procedures for gathering and evaluating PRO data, the periodic examination of PRO data to spot trends, and the steps taken to resolve any deviations as quickly as feasible. Lastly, enhancing the function and value of PRO in practice also requires adopting feedback systems that enable patients to share their experiences while undergoing evaluations.

E. Long-Term Impact

As a concept, breast implant surgery asks one to look beyond the analytical focus on immediate outcomes and investigate the long-term consequences on patients' quality of life or overall wellbeing. However, studying long-term consequences is as important in patients' overall care. Thus, knowing short-term results as a measure of success should not just predominate (Jain et al., 2024, p. 16). Long-term studies of postoperative patients' quality of life and happiness with breast implants also make it easier to identify potential changes in patients' perceptions and their quality of life and satisfaction levels with the implants.

One obvious way that breast implant surgery affects breast attractiveness over time is through the physical alteration it causes. Studies demonstrate that although individuals who have breast surgery report improved breast size and form right away, these changes are always temporary and can be attributed to aging, tissue changes, implant wear, and other factors. Studies that track patients for up to five years after surgery and who are subsequently followed up with routine check-ups and touch-ups can provide valuable information on how long-lasting the outcomes are and whether any recurrent problems may call for further inset procedures.



Fig 4: Patient Satisfaction After Breast Implant

Furthermore, there is not enough information available to determine how breast implant surgery impacts a patient's psychological wellbeing over the long term. Therefore, it is critical to identify and treat these problems as well. It is essential to comprehend the duration of these favorable psychological effects regarding postoperative longevity and whether they show steady improvement over time or fluctuate (Ranieri et al., 2021, p. 12). To assess how well patients have psychologically adapted to the effects of implantation, a prospective design of data collecting will help identify changes in patient's self-esteem, body image, and quality of life within a few years of having breast prosthesis implantation.

Furthermore, studying how a breast implant will affect the patients' future social experiences will help us better understand how a given intervention may change how a patient perceives the world or interacts with others. Even while research shows improvements in social selfconfidence and interaction after surgery, certain people may still experience relational, cultural, or rejection problems. A patient's ability to adjust to relationship alterations and changes in social interactions, relationships, and sexual satisfaction can all be recorded over a long-term follow-up, which helps determine how the operation affected the patient's interpersonal lifestyle.

To improve treatment and adjustment plans, breast implant revision can detect any changes in women's physical, psychological, and social lives years after the surgery. For instance, monitoring certain practical-scientific aesthetic changes or problems over time can assist in providing recommendations for implant maintenance, adjustments, or removal (Misere et al., 2021, p. 179). Similarly, understanding how a patient's psychological state can alter following surgery can help determine what kind of counseling, psychosocial services, or mental health treatment the patient might need to aid with these changes.

Furthermore, by comprehending and characterizing the potential for social re-adjustment in the context of breast implant surgery, informational, counseling, and support services may be better developed and tailored to patients' experiences of interpersonal pressures, expectations, and relationships. This paper attempts to provide healthcare professionals with a broader understanding of the breast implant process so that they can better manage the various aspects of their patients' post-surgery experiences and create better solutions that serve their interests.

VI. CONCLUSION

PROs document a patient's distinct experience. In a comprehensive way that appeals to the aesthetic, physical, psychological, and social domains, they aid in understanding patients' satisfaction with breast implants as well as their overall physical and mental well. Putting the developed PROs into practice raises the standard of patient care. However, it also promotes ongoing advancements in the standard of breast implant procedures. As things stand, most future projects should concentrate on improving the numerous instruments in the PRO project and creating new approaches and strategies for the project's actual implementation in diverse clinical settings. The contextualized care approach states that to enhance the quality of the patient's ultimate experience, breast implant facilities should pay attention to the needs of their patients and make the necessary adjustments based on their needs and expectations.

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APPENDIX

Apendix 1; Questionnaire of Breast Implant Satisfaction and Quality of Life Survey

- How happy are you with how your breasts look now that you had surgery? On a scale of 1 to 5, with 1 denoting extreme dissatisfaction and 5 denoting extreme satisfaction, please rate.....
- Since the surgery, have you had any physical pain or discomfort in your breasts? (Yes/No)
- To what extent are you happy with your general standard of living following breast implant surgery? (Please rate on a scale of 1 to 5, where 1 is very poor and 5 is excellent)
- After the operation, have you seen any changes in your confidence and sense of self-worth? (Yes/No)
- To what extent are you happy with how the operation improved your physical appearance? (Please rate on a scale of 1 to 5, where 1 is very dissatisfied and 5 is very satisfied)