Research article *Clin Ter 2022; 173 (4):242-346* *doi: 10.7417/CT.2022.2443*

What hides beneath the scar: sexuality and breast cancer what women don't say: A single-center study

E. Gozzi[1], A.R. La Manna[2], L. Rossi[3], S. Piroli[2], M. Colonna[4], M.A. Ulgiati[2], L. Romagnoli[5], S. Busco[5], S. Parrocchia[6], R. Marrone[6], C. Iavarone[7], G. Arcangeli[8], F. Angelini[1], C. De Masi[9], C. Ambrogi[9], S. Travaini[10], A. Calogero[11], A. Centra[12], F. Ricci[2]

[1] Medical Oncology Unit, Regina Apostolorum Hospital, Albano, Rome, Italy; [2] UOC Breast Unit Latina, S. Maria Goretti Hospital, Latina, Italy; [3]UOC of Oncology - ASL Latina - Distretto 1, University of Rome "Sapienza", Aprilia (LT), Italy; [4]UOSD of Oncology - A. Fiorini Hospital Terracina, Italy; [5]UOC of Clinical Control And Governance Programming - ASL Latina. Italy; [6]UOC of Medical Direction S. Maria Goretti Hospital, Latina, Italy; [7]UOC of Anesthesia S. Maria Goretti Hospital, Latina, Italy; [8]UOC of Radiotherapy S. Maria Goretti Hospital, Latina, Italy; [9]UOC of Diagnostic And Interventional Radiology, S. Maria Goretti Hospital, Latina, Italy; [10]UOC Anatomia Patologica S. Maria Goretti Hospital, Latina, Italy; [11]Dipartimento di Scienze e Biotecnologie Medico-Chirurgiche, Sapienza, Latina, Italy; [12] UOC of Information flows and process innovations ASL Latina, Italy

Abstract

Background. Breast is a symbol of femininity, motherhood and sexuality. Breast cancer (BC) is the leading cause of cancer death in women worldwide and most frequent cancer in Italy: in 2019, 53.500 new cases were diagnosed. BC and its treatment , the disturbances of body image, and mental health problems such as anxiety and depression could influence sexuality. Very often the aspect of sexuality in BC is likely not to be fully investigated: cultural barriers may also contribute to lack of attention to these issues. In Italy, there are very few Breast Units that provide the figure of the sexologist and psycho-oncologist.

Methods. We enlisted 141 BC patients (pts), mean age was 54 years afferent to Breast Unit S. Maria Goretti Hospital, Latina, from March 2019 to March 2020. All pts had undergone surgical intervention. Participants were invited to complete a structured questionnaire, which included four close-up questions regarding self-image, sexual activity, sexual satisfaction, analyzing these aspects before and after BC and its treatments. Finally the participants were asked if they needed the sexologist and psycho-oncologist.

Results. Only 2/141 pts (1.41%) refused to participate in our study. Of 139 participants, 68 (48.92%) had disturbances of body image, 26 (18.7%) had sexuality greatly negatively affected, and 103 (74.1%) every kind of sexual dissatisfaction after BC. 38 pts (27.3%) would require the help of the sexologist. 135 (97%) would require the help of the psycho-oncologist. Despite the negative influence in their body-image and sexuality, few pts require the help of the sexologist, but nearly all pts require the help of the psycho-oncologist.

Conclusion. In our study nearly all pts require the help of the psycho-oncologist, but few pts of the sexologist. Further studies will be needed to understand the reasons for this disparity: at the moment we are carrying out another project following this illustration, with the aim of understanding why this disparity. ***Clin Ter 2022; 173 (4):342-346doi: 10.7417/CT.2022.2443***

Key words: *Breast Cancer (BC), Surgical-intervention, Psycho-oncologist, Sexuality, Sexologist, Body-image*

Introduction

Breast is a symbol of femininity, motherhood and sexuality: it represents women's gender identity.

Breast cancer (BC) is the leading cause of cancer death in women worldwide and most frequent cancer in Italy: in 2020, 55.000 new cases were diagnosed (1).

There are estimated 12,300 deaths with a net survival five years after diagnosis of 87% (1). It is also estimated that 834,200 women living in Italy after a diagnosis of BC (1).

Within the basic oncological procedures – surgery, chemotherapy, radiotherapy, and hormone therapy– there will be a lot of changes in the body.

Breast cancer treatments produce adverse effects with visible (breast loss, hair loss) and nonvisible (hot flushes, nausea) bodily impacts.

The trauma of being diagnosed and treated for breast cancer can impact greatly on women's gender identity and bodily image.

The experience of BC can result in a breakdown of the self-image: this occurs when "the social assumptions that

Correspondence: Rossi Luigi, UOC of Oncology - ASL Latina-Distretto 1, University of Rome "Sapienza," via Giustiniano snc – 04011, Aprilia (LT), Italy. Tel: +39 69 2863 4377; Email: dr.rossi@ymail.com

ISSN 1972-6007

define (survivor) as women no longer correspond to their own inner definitions of what it means to be a woman". The experience of a familiar sense of body, self and social interactions come together to embody a vision of "me". From this "me" develops an expectation on how the body will function and will respond in certain situations. When this familiar definition of self is interrupted by the physical changes of cancer, especially in a younger woman who ex pects a healthy and functional body, the self-image no longer feels familiar and secure (2).

The discomfort related to the body image (BID) is often accompanied by an increase in psychopathology (depression and anxiety) and work impairments, social and relationship functioning.

Age at diagnosis strongly conditions the way of living the BC experience (3,4). Young women (aged 40 or under at the time of diagnosis) have different concerns than older women (the management of family roles and the care of children, the professional career, the change of body image that could lead to marital tensions) and tend to perceive the BC as more aggressive (3).

In addition, there is evidence in the literature that younger women (YU) tend to have higher psychological morbidity and lower quality of life (QOL) after diagnosis of BC than older women: Avis et al. (5) reported that YU BC survivors are at risk for impaired QOL up to several years after diagnosis.

YU, especially those at high risk for lower QOL, may need interventions that specifically target their needs related to menopausal symptoms and problems with relationships, sexual functioning, and body image.

In addition, especially in the YU there is a need to deal with changes that can be both dramatic and sudden during a period of life in which good health is generally assumed, with far-reaching psychological implications: including partial or complete loss of the breast, premature menopause, and subsequent changes in sexual functioning and fertility.

Sexual dysfunction is highly prevalent among YU: despite the great importance of this phenomena and its impact very often is not addressed by health professionals and patients: many of them prefer these problems to be dealt with privately (e.g.web sites), rather than face to face, due to embarrassment and psychological discomfort in discussing these matters.

The psychological implications of sexuality and bodily imagery also reflect the cultural context: often the environment influences the way of living a certain experience as may be that of the young survivors of BC

The aim of our original research is to describe the psychological impact of alterations in self-image, sexual activity, sexual satisfaction, analyzing these aspects before and after BC and its treatments using a structured questionnaire.

Finally the participants were asked if they needed the sexologist and psycho-oncologist.

Design, Materials And Methods

Our study is an original research whose main objective has been to assess the psychological impact and the repercussions on different aspects of the life of women with BC diagnosis, and not least, the need for help from a sexologist or psycho-oncologist.

The will to carry on our study comes from the necessity to want to introduce to the inside of the professional figures of the Breast Unit (BU) an important aspect: the psychological impact on diagnosis and the repercussions on the daily life of women and its aspects, not least sexuality.

Not all the BU present in our national territory provide in fact the figure of the psycho-oncologist and the sexologist.

We enlisted 141 BC patients (pts), mean age was 54 years afferent to our BU S. Maria Goretti Hospital, Latina, from March 2019 to March 2020.

The BU S Maria Goretti Hospital is composed of the following dedicated professional figures: breast surgeon, plastic surgeon, oncologist, radiologist, radiotherapist, pathologist, psycho-oncologist, physiatrist, geneticist, gynecologist, care manager, nutritionist.

An average of 300 surgical procedures are performed annually, of which 232 for oncological pathology with 13250 access for first visits a year.

All pts had undergone surgical intervention.

Participants were invited to complete a structured questionnaire, which included four close-up questions regarding self-image, sexual activity, sexual satisfaction, analyzing these aspects before and after BC and its treatments.

Finally the participants were asked if they needed the sexologist and psycho-oncologist.

Analysis of data was done by reading and rereading the material to gain an overall impression.

Simple counting of the number of women who referred psychological impact of alterations in self-image, sexual activity, sexual satisfaction, analyzing these aspects before and after BC and its treatments.

Results

Only 2/141 pts (1.41%) refused to participate in our study.

Of 139 participants, 68 (48.92%) had disturbances of body image, 26 (18.7%) had sexuality greatly negatively affected, and 103 (74.1%) every kind of sexual dissatisfaction after BC.

38/139 pts (27.3%) would require the help of the sexologist. 135/139 (97.1%) would require the help of the psycho-oncologist.

Despite the negative influence in their body-image and sexuality, few pts require the help of the sexologist, but nearly all pts require the help of the psycho-oncologist.

A first analysis of the collected data showed that there was a large participation of patients in our study (only 1.4% expressed a refusal): this confirms even more our goal, which is to investigate the psychological repercussions and give relevance to the phenomenon by introducing it within the path of BU care.

Examining the body image, the relationship with your body, femininity and beauty (Table 1-2) emerged as:

Before diagnosis and treatments for BC (Table 1):

52 pts/139 (37.4%) had a very good relationship with their body, femininity and beauty 82 pts (58.9%) had a relationship defined as "normal" with ups and downs, while

Table 1. Body image: the relationship with your body, femininity and beauty before diagnosis and treatments for BC

139 pts	Relationship with body femininity and beauty pts (%)
Very Good	52 (37.4%)
Normal	82 (58.9%)
Conflictual	5 (3.59%)

only 5 pts (3.59%) had a relationship of conflictual type with their body, femininity and beauty.

After diagnosis and treatment for BC (Table 2): 61/139 (43.88%) pts have maintained a good relationship with their body image, femininity and beauty; 68 pts (48.92%) have had an impact on their body image with a partial conditioning about their femininity and beauty; 10 pts (7.19%) experienced a difficult type relationship, where the disease strongly threatened the female identity with difficulty to recognize themselves and their body.

Examining the aspect of sexuality (Table 3) emerged as Before diagnosis and treatment for BC: 99/139 pts (71.2%) were completely satisfied with their sex life 33/139 pts (23.74%) were partially satisfied with their sex life 7/139 pts(5.03%) did not have a satisfactory sex life.

After diagnosis and treatment for BC: 28/139pts (20.14%) maintained a satisfactory sex life without any repercussions. 77/139 pts (55.39%) have affected partially satisfactory sexual life 26/139 pts (18.7%) have had effects on the sexual life unsatisfactory.

A total of 103/139 pts had every kind of sexual dissatisfaction after BC.

Table 2. Body image: the relationship with your body, femininity and beauty after diagnosis and treatments for BC

139 pts	Relationship with body femininity and beauty pts (%)
No impact	61 (43.88%)
Partial impact	68 (48.92%)
Strongly impact	10 (7.19%)

Table 3. Sexuality before and after BC

139 pts	Sex life before BC pts (%)	Sex life after BC pts (%)
Completely satisfied	99 (71.2%)	28 (20.14%)
Partial satisfied	33 (23.74%)	77 (55.39%)
No satisfied	7 (5.03%)	26 (18.7%)

Finally, the participants were asked whether they considered valid and useful the figure of a sexologist and a psycho-oncologist within the path of treatment:

- 135/139 (97.1%) would require the help of the psycho-oncologist.
- 38/139 pts (27.3%) would require the help of the sexologist.

Despite the negative influence in their body-image and sexuality, few pts require the help of the sexologist, but nearly all pts require the help of the psycho-oncologist

We were very surprised by this fact: at the moment we are carrying out another project following this illustration, which always provides for the completion of a structured questionnaire respecting the anonymity of the participants, with the aim of understanding why this disparity.

Discussion

Despite the fact that BC is the most common cancer in Italy[1] with evident repercussions on both the psychological and sexuality of affected pts, there are very few BU that provide the figure of the sexologist and psycho-oncologist.

In our BU we have tried to highlight the relevance of this phenomenon: among the professional figures that compose it is present that of the psycho-oncologist for at least four years. Through this structured questionnaire we wanted to highlight how the above figure represents a significant point of reference within the path of care of our pts, and not least, we focused on the aspect of sexuality and changes that may occur in this area in the lives of our pts.

Examining the body image, the relationship with your body, femininity and beauty, generally body image is defined as " the way a woman perceives and evaluates the integrity of her physical body"(2)

The experience of BC can result in a breakdown of the self-image: this reflects both visible external changes (such as surgical loss of breast tissue, radiation-induced skin color change in radiation treatments, hair loss due to chemotherapy) but also changes "not visible" such as loss of breast sensitivity, nipple and skin. From this it follows a negative perception of the woman's attractiveness resulting in sexual influence and psychological discomfort.

While it is true that the body image suffers repercussions after the diagnosis and treatment of BC, it is also true that this does not affect all patients: evidence in the literature indicates that women who have a stronger body image of themselves before cancer better address physical changes resulting from BC treatment.

This has also emerged in our study, in which only 10 pts (7.19%) experienced a difficult type relationship, where the disease strongly threatened the female identity with difficulty to recognize themselves and their body.

Przezdziecki A et al. (6) highlighted how self-compassion could play a mediating role between body image disturbance and psychological distress, suggesting a potential effect of higher levels of self-compassion for women at risk of suffering from body image disturbances.

In our BU we have tried to highlight the relevance of this phenomenon: among the professional figures that compose

it is present that of the psycho-oncologist for at least four years: by promoting a valid and active support in all the stages of the treatment we try to help our patients to have a better awareness of themselves, improving their self-esteem and relationship with their body.

With regard to the impact of visible external changes on the body image, it is evident that surgery plays a leading role. From the evidence in the literature we learn how more conservative surgical procedures, involving less visible changes to the breast, are characterized by less psychological discomfort. (7)

Similarly, studies indicate that women who undergo prophylactic mastectomies without pursuing breast reconstruction experience significantly greater discomfort with regard to their post-implant appearance surgical, femininity and well-being feelings in sexual relationships (2). These results indicate that, the physical loss of breast affects the body image, with indications that for some women, reconstruction may counteract this effect

Some studies reveal no differences in her well-being related to the type of surgery, with arguments highlighting the importance of psychological factors on how a woman experiences the results of the surgery.

Hence the idea of promoting an active role of women in surgical evaluation in the hope that this will lead to greater responsibility and satisfaction for their body image after surgery, regardless of the physical result.

In pursuit of this objective, our BU promotes an active participation of women in the whole care path from diagnosis to subsequent therapies by configuring in a real "taking care of patients".

Examining the aspect of sexuality, appears how very often in BC it is likely not to be fully investigated: cultural barriers may also contribute to lack of attention to these issues: Bober SL et al. (8) propose in this regard an "integrative" approach through appropriate information and support with the aim of alleviating sexual dysfunction and the discomfort that accompanies them.

In assessing the impact on sexuality in women with BC, it is appropriate to consider how ethnic-cultural factors can also intervene: this has emerged from population studies. 2,9 Christie KM et al (9) found that Hispanic/Latin women experience more sexual difficulties involving different aspects: from the loss of sexual desire, the lack of relaxation and arousal to the lack of orgasm. (9)

Sexuality and sexual well-being are a multiform experience in which physical factors, but also psychological and interpersonal factors, intervene: therefore, getting a satisfactory sexual experience for a woman depends on having a comfortable mental and interpersonal state as well as having a reactive and healthy physical body (2,10).

With these premises it is clear that the risk of sexual dysfunction is particularly high especially in YU survivors of BC (2,8)

Sexual dysfunction is characterized by vaginal dryness, dyspareunia, amenorrhea, loss of sexual desire, decreased frequency of sexual activity, difficulty reaching orgasm, and anxiety about sexual performance.

Several are the predictive factors of sexual dysfunction that may, if present, increase the risk of sexual dysfunction: Ganz et al. (11) found that vaginal atrophy, dryness and dyspareunia increase the risk of sexual dysfunction.

Lee et al. (12) identified that thyroid dysfunction and depression induced by chemotherapy are independent risk factors for sexual inactivity.

Rosenberg et al. (13) reported that symptoms of vaginal pain, poor body image and fatigue were independently associated with sexual dysfunction

The professional figure of the sexologist within the treatment path would be a valuable help because sexuality is not exclusive to couples and also patients without partner who can also maintain a healthy sex life.

Conclusion

Breast is a symbol of femininity, motherhood and sexuality: BC and its treatment , the disturbances of body image, and mental health problems such as anxiety and depression could influence sexuality.

The aim of our original research is to describe the psychological impact of alterations in self-image and sexuality: it has been evidenced as, despite the negative influence in their body-image and sexuality, few pts require the help of the sexologist, but nearly all pts require the help of the psycho-oncologist.

We were very surprised by this fact: at the moment we are carrying out another project following this illustration, which always provides for the completion of a structured questionnaire respecting the anonymity of the participants, with the aim of understanding why this disparity.

It is advisable to encourage communication in the field of sexuality as it often turns out to be an ignored topic, also and above all because of cultural barriers.

Obstacles that prevent good communication must be recognized and overcome

Very often, in fact, doctors feel unprepared and embarrassed in dealing with the topic of sexuality towards patients (14,15).

While patients struggle to ask for help in this area16.

Collaborating together in the right direction is the basis of change and good communication

It is therefore advisable to focus also and above all on improving the quality of life of our patients by helping them in a path in which we aim to achieve a positive body image and a satisfactory sexual function

Ethics approval and informed consent

The authors declare that Ethics Committee belongs to AUSL LATINA

Written informed consent was obtained from the patient for publication of this research.

Funding

This research received no external funding

Competing interests

The authors declare no competing interest

Authors' contributions:

Elisa Gozzi was the primary editor and wrote the manuscript.

La Manna Alessandra Rita, Piroli Silvia and Ulgiati Maria Antonietta distributed and collected the questionnaires.

Rossi Luigi: conceived the need to describe the case

Colonna Maria, Laide Romagnoli and Busco Susanna: reviewed the literature

Parrocchia Sergio, Marrone Riccardo, Iavarone Carlo: made english corrections

Arcangeli Giancarlo, Ambrogi Cesare formal analysis and investigation.

Angelini Francesco: resources and supervision.

De Masi Carlo, Travaini Simona, Calogero Antonella, Alessandro Centra: coordinated the realization of the manuscript

Ricci Fabio: final approval of the version to be published.

Acknowledgments

We would like to acknowledge the BREAST UNIT OF S.MARIA GORETTI HOSPITAL LATINA for its motivation and support.

The abstract of this paper was presented at the XXII Congresso Nazionale AIOM as a poster. The poster's abstract was published in Breast Cancer Session and it has been marked with the code "E47.

References

1. https://www.aiom.it/wp-content/uploads/2020/10/2020_Numeri_Cancro-operatori_web.pdf
2. Clara Hungr et al. Self-image and sexuality issues among Young women with breast cancer:pratical recommendation. Rev Inves Clin. 2017;69:114-22
3. Victoria L. Champion, PhD1, Lynne I. Wagner et al. Comparison of younger and older breast cancer survivors and age-matched controls on specific and overall QoL domains. Cancer. 2014 August 1; 120(15): 2237–2246. doi:10.1002/cncr.28737
4. Campbell-Enns HJ, Woodgate RL. The psychosocial experiences of women with breast cancer across the lifespan: A systematic review. JBI Database System Rev Implement Rep. 2015; 13:112-21
5. Avis NE, Crawford S, Manuel J. Quality of life among younger women with breast cancer. J Clin Oncol. 2005;23:3322-30
6. Przezdziecki A, Sherman KA, Baillie A, et al. My changed body: breast cancer, body image, distress and self-compassion. Psychooncology. 2013;22:1872-9
7. Han J, Grothuesmann D, Neises M, et al. Quality of life and satisfaction after breast cancer operation. ArchGynecol Obstet. 2010;282:75-82
8. Bober SL, Varela VS. Sexuality in adult cancer survivors: challenges and intervention. J Clin Oncol. 2012;30:3712-9
9. Christie KM, Meyerowitz BE, Maly RC. Depression and sexual adjustment following breast cancer in low-income Hispanic and non-Hispanic White women. Psychooncology. 2010;19:1069-77
10. Wylie K, Mimoun S. Sexual response models in women. Maturi- tas. 2009;63:112-5
11. Ganz PA, Greendale GA, Petersen L, et al. Breast cancer in younger women: Reproductive and late health effects of treatment. J Clin Oncol. 2003;21:4184-93
12. Lee M, Kim YH, Jeon MJ. Risk factors for negative impacts onsexual activity and function in younger breast cancer survivors. Psychooncology. 2015;24:1097-103
13. Rosenberg SM, Tamimi RM, Gelber S, et al. Treatment-related amenorrhea and sexual functioning in young breast cancer survivors. Cancer. 2014;120:2264-71
14. Park ER, Norris RL, Bober SL. Sexual health communication dur- ing cancer care: barriers and recommendations. Cancer J. 2009; 15:74-7
15. Bober SL, Recklitis CJ, Campbell EG, et al. Caring for cancer survivors: a survey of primary care physicians. Cancer. 2009; 115:4409-18
16. Flynn KE, Reese JB, Jeffery DD, et al. Patient experiences with communication about sex during and after treatment for can- cer. Psychooncology. 2012;21:594-601