Risk Factors for Sexual Dysfunction and Sexual Life Changes in a Community Hospital Breast Cancer Survivor Population

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Introduction

With the improvement in therapy, screening, and management of comorbidities, cancer is gradually becoming a chronic disease with complex late issues. Breast cancer survivors now constitute over 40% of all female cancer survivors underlying the need for comprehensive post-treatment care¹. While patients are often provided information regarding treatment, there remains an unmet need for information regarding post-treatment sexual dysfunction². While this is a multifactorial issue, menopausal status at diagnosis, use of endocrine therapy, and surgical treatment could be among the major contributors to the development of post-treatment sexual life changes.

Hormonal therapy

• Treatment-induced menopause
  • Impaired fertility
  • Decreased libido
  • Mood disturbances
  • Vaginal dryness and dyspareunia

Menopausal status at time of diagnosis

• Disruption of relationships with spouses and significant others²
• Disruption in plans for having children²
• Difficulties in partner relationships towards lower rates of sexual activity, lower sexual interest, increase difficulty with arousal, and increase vaginal dryness³
• Worsening of menopausal symptoms

Type of surgical treatment

• Breast conservation therapy (BCT) - lumpectomy with radiation
• BCT is the recommended treatment for early stage invasive ductal cell carcinoma.⁴
• Only approximately 60% of patients with early stage breast cancer undergo BCT; others undergo mastectomy⁵,⁶,⁷
• Body Image disturbance after mastectomy
• Need for radiation/possible other adjuvant therapies with BCT

Objectives

• Evaluate the significance of post-treatment sexual dysfunction in a community hospital breast cancer survivor population
• Evaluate the impact of various treatments (hormonal, surgical) in the development of post-treatment sexual dysfunction
• Evaluate any differences in the development of post-treatment sexual dysfunction among pre- and post-menopausal breast cancer survivors

Methods

- Univariate
- Descriptive
- Comparisons
- Sexual dysfunction in all groups: A historical median pre-treatment FSFI score in the literature is -0.20 – thus any results close to this would be significant.

Results

Table 1: Patient Population

<table>
<thead>
<tr>
<th>Race</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>50.0</td>
</tr>
<tr>
<td>Black</td>
<td>42.7</td>
</tr>
<tr>
<td>Other</td>
<td>7.3</td>
</tr>
</tbody>
</table>

General Trends:

• The mean FSFI score for all participants was 15.08 with a median total score of 13 (sexual dysfunction cutoff = 26.59).¹¹
• The average SABIS “Post Body Image” subscale score was 2.45 – a decrease from an average “Prior Body Image” subscale score of 2.77, although this decrease did not reach statistical significance (p=0.15).
• The average SABIS “Impact on Sexual Function” subscale score was -0.54 (standard deviation = 0.57), with possible scores ranging from -2 to -2 and negative scores indicating a decline in sexual function after treatment. No individual participant scored above zero on that scale.

In general, participants indicated moderate sexual importance of breasts with an average SABIS subscale score of 2.77 (standard deviation = 1.0).

Discussion

• Sexual dysfunction in women with breast cancer is thought to be a result of both physical (vaginal dryness, dyspareunia, fatigue, hormonal alterations) and psychological (body image disturbance, anxiety) factors.¹⁶
• Sexual function is a difficult topic to discuss for both patients and providers → need for improved counselling strategies. Women who are diagnosed with breast cancer are often unprepared for the effects their treatment plans might have on their sexual function, sexual satisfaction, and body image.¹³
• Sexual dysfunction in all groups: A historical median pre-treatment FSFI score in the literature is 26.6 with a decline to 24.4 after treatment.¹⁴ The extremely low median score of 13 among all participants in the present study indicates that sexual dysfunction is a significant issue among this community hospital survivor population.
• Sexual activity in breast cancer survivors is similar to that of non-cancer survivors - sexual dysfunction as an important quality of life issue in this population.¹⁵
• The younger population have unique concerns: reproductive effects, fear of recurrence, discussing the diagnosis with a partner, life-expectancy, child’s health, etc. These patients may be at increased risk for QoL issues such as sexual dysfunction.¹⁶
• All five patients who underwent bilateral mastectomy were pre-menopausal. They had the highest total FSFI scores, but the lowest “Impact on Sexual Function” SABIS score (indicating the best overall function but the greatest decrease in function after treatment). It is possible that with a larger sample size this comparison would become clearer and possibly reach significance.
• Hormonal therapy – not found to have an effect. Hormonal therapy has been thought to play a role in physical symptoms, but the literature remains unclear about the significance of its impact on overall function. There is more support in the literature about adjuvant chemotherapy having deleterious effects on sexual function in breast cancer patients, and further defining the relationship between hormonal therapy and chemotherapy might be a direction for future studies.¹⁷,¹⁸
• Sample size and homogeneity of the patient population were clear limitations of this study, but the results offer suggestion for further investigation into this important topic.
• In a study with a larger patient sample, the dichotomy of adolescent and young adult (AYA, defined as patients ages 15-39) and older populations rather than pre- and post-menopausal could more effectively illuminate any unique concerns or effects of treatment on the younger population.¹⁹

Figure 1: Mean (±SEM) FSFI SD Subscale Score by Menopausal Status

Figure 2: Mean (±SEM) FSFI SD Subscale Score by Surgical Treatment

Citations

[5]. Cornell LF, Mussallem DM, Gibson TC, Diehl NN, Bagaria SP, McLaughlin SA. Body image and body image distortion in breast cancer survivors: A historical median pre-treatment FSFI score in the literature is 26.6 with a decline to 24.4 after treatment.¹⁴ The extremely low median score of 13 among all participants in the present study indicates that sexual dysfunction is a significant issue among this community hospital survivor population.
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