

# Explorar-me: A patient-centred toolkit to address sexual wellbeing in breast cancer treatment

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## SUMMARY

Breast cancer (BC) treatment often overlooks sexual health, focusing solely on survival indicators. The Explorar-me kit invites BC patients to reconnect with their sexuality through self-exploration tools and accessible education. Patient-centred design revealed cultural barriers and normalized discomforts, highlighting the need for proactive sexual health education. The kit's tools, including a vibrator and dilators, would allow patients to explore their sexual wellbeing independently and confidently. This replicable model demonstrates how empathy-driven, collaborative design can address stigmatised health topics and improve patient experiences.

**Key Words:** Breast cancer; sex education; sexual wellbeing; cancer treatment intervention

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## INTRODUCTION

Breast cancer (BC) is the most prevalent malignancy among women worldwide, with a curability rate of approximately 70–80 per cent for early-stage, non-metastatic cases.<sup>1</sup> During BC treatment, many patients experience sexual changes that significantly impact their wellbeing, including decreased libido, poor arousal, and reduced sexual satisfaction. Physically, vulvo-vaginal atrophy is common in patients receiving endocrine therapy for BC due to estrogen depletion. Cancer also affects relationship dynamics. Women whose partners adapt positively and supportively to their illness report better psychosocial outcomes related to sexuality.

Sexual wellbeing encompasses an individual's perception of their life conditions, action capability, and life satisfaction, which can influence sexual behaviour. This concept includes physical and psychological aspects such as self-esteem and fatigue, as well as relational interactions.<sup>2</sup>

Evidence emphasises the need for disease-specific knowledge and individualised sexual health education to address sexual behaviour problems in chronic conditions.<sup>3</sup> However, education about sexual problems stemming from BC and its treatment are not currently included in government health funding provided to patients in Chile. This gap is particularly concerning given that healthcare providers' recommendations often focus exclusively on vaginal lubricants, which may potentially minimise, or disregard other problems or concerns women may have.<sup>4</sup>

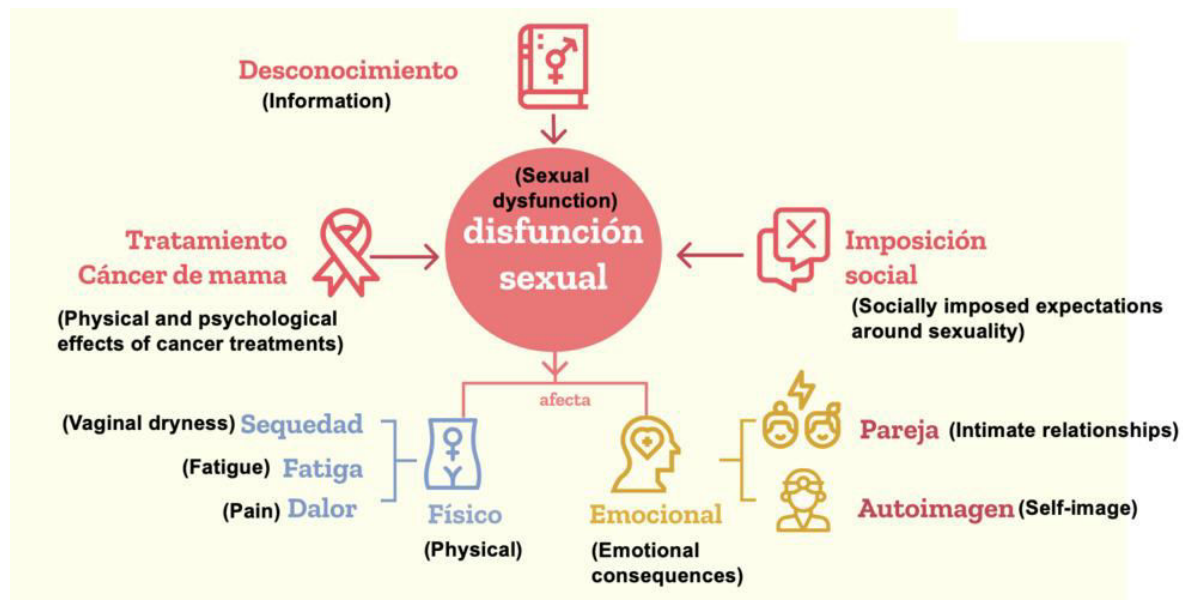
Importantly, research has shown that masturbation can be beneficial as a coping and self-care strategy for sexual wellbeing in patients.<sup>5</sup> Despite this evidence, discussions about masturbation and other self-care

practices such as acupuncture and essential oils are often overlooked in patient education and care recommendations. This omission is accompanied by cultural taboos surrounding discussions of sexual wellbeing, especially among older adults who received sex education at a time when government plans were not focused on women's psychological wellbeing.

## SUMMARY

Our research process aimed to understand factors affecting sexual wellbeing in female BC patients. We conducted a literature review and consulted healthcare professionals to gain insights into BC and related sexual problems. We then interviewed BC patients and healthcare providers for validation. We identified systematic problems in education and treatment for sexual issues, such as reactive addressing of sexual wellbeing only after patients report problems, lack of validated information at diagnosis, and insufficient preventive measures for sexual effects of treatment (Figure 1).

**Figure 1: Diagram summarising our research around causes and symptoms of sexual issues in BC**



Note: This diagram (originally in Spanish) illustrates the multifactorial nature of sexual dysfunction in women undergoing treatment for breast cancer. Key contributing factors include a lack of information (*Desconocimiento*), the physical and psychological effects of cancer treatments (*Tratamiento Cáncer de mama*), and socially imposed expectations around sexuality (*Imposición social*). Sexual dysfunction (*disfunción sexual*) manifests through both physical symptoms—such as vaginal dryness (*Sequedad*), fatigue (*Fatiga*), and pain (*Dolor*)—and emotional consequences (*Emocional*) that affect self-image (*Autoimagen*) and intimate relationships (*Pareja*). These impacts are interconnected and often overlooked in clinical care, highlighting the importance of addressing sexual health as part of holistic cancer treatment. © The authors (2025)

Our initial research revealed a design opportunity to create education tools promoting sexual self-exploration for women affected by BC. Our goal was to develop a tool that could enhance the patient's relationship with herself through her body and positively impact her sexual wellbeing. We identified key requirements, including accessible basic sexual education for all patients, early BC symptom awareness, user-friendly tools addressing physical and psychological issues, affordability, and methods to reintroduce sexuality for patients who have abandoned it due to previous experiences.

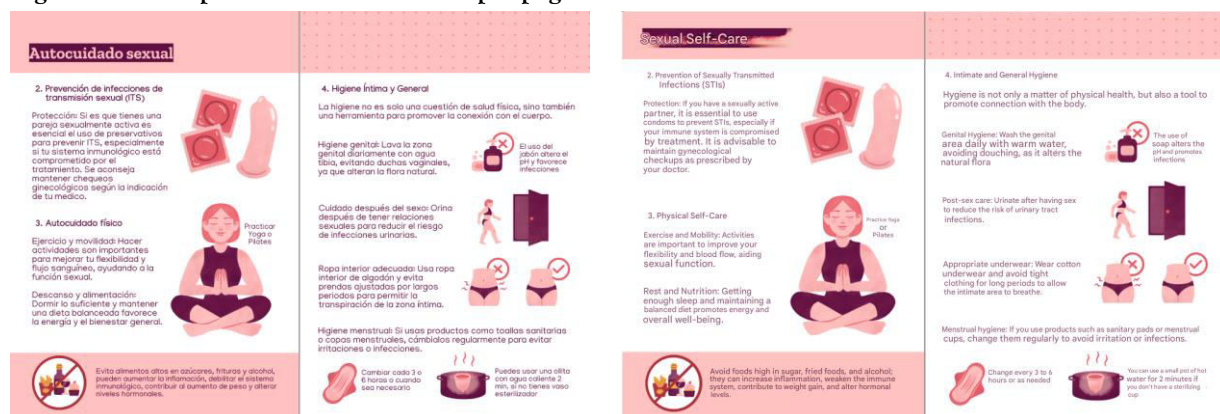
We developed Explorar-me (Explore-me), a multidimensional sexual self-exploration proof-of-concept toolkit designed to help BC patients reconnect with their sexuality. The toolkit includes a user-friendly manual on sexual health in BC and physical tools for common sexual BC symptoms: a water-based lubricant for vulvo-vaginal dryness, a set of three small dilators made with clinical resin and ABS plastic to avoid vaginismus and reduce costs, and a bullet-shaped external vibrator for non-penetrative sexual pleasure exploration. The accompanying manual provides instructions for tool use, basic sexual education, information on sexual self-care and common BC symptoms, exercises for symptom management, a treatment progress calendar, and quick tips for sexual wellbeing (Figure 2 and Figure 3).

**Figure 2: Self-exploration manual mock-up**



Note: “Explorar-me en tratamiento” means “Self-Exploration in Treatment”. Images contained in the mock-up are self-made. Mockup based on CC template from <https://deezzy.com/product/32035/realistic-magazine-free-mockup?friend=179a6ea7c197c2c9ad8048042>

**Figure 3: Self-exploration manual example page**



Note: *Left*: This page, originally in Spanish, presents essential information on sexual self-care (*Autocuidado sexual*) for women. It highlights key practices such as the prevention of sexually transmitted infections (*ITS*) through condom use and regular medical check-ups, the importance of physical self-care (*autocuidado físico*)—including exercise, rest, and nutrition—and recommendations for intimate hygiene (*higiene íntima*) to prevent infections. The infographic also notes the potential impact of diet on hormonal and immune health, advising reduced intake of sugar, fried foods, and alcohol. All illustrations and layout were self-designed. The content is based on research conducted for the development of this manual, of which this page is a part. *Right*: The image on the right is an English translation using Google Translate (may not be 100 percent accurate).

## LESSONS LEARNED

Through this design process, we tackled the complexities of effective communication about sexuality between healthcare professionals and patients. Often considered taboo, sexuality is deprioritised in BC treatment, with an exclusive focus on survival indicators. This cultural and systemic oversight neglects evidence suggesting the importance of addressing sexual wellbeing for overall patient health and quality of life.

We believe the Explorar-me kit can be effective in addressing key issues surrounding the invisibility of sexual health in BC treatment. Consulted patients found the tools and resources of our proof-of-concept could be valuable for recognising and addressing their sexual health needs. The design fulfilled requirements such as accessibility, affordability, and ease of use. However, clinical testing will be necessary to assess its clinical long-term effectiveness.

Through the design process we learned that open dialogue and iterative collaboration with stakeholders, including patients and healthcare professionals, are essential. In our initial research, preventable discomforts normalised in current practices were highlighted, reinforcing the need for proactive conversations about sexual health. In this sense, the Explorar-me toolkit could provide patients with tools and knowledge that will empower them to manage their sexual health independently. Feedback from the focus groups indicated that patients appreciated the comprehensive yet accessible approach, which may demystify sexual health topics and offer practical solutions. The toolkit's design could also reduce reliance on healthcare providers, thereby alleviating some pressure on the medical system.

This proof-of-concept underscores the importance of addressing neglected areas like sexual health through patient-centred design. Designers and healthcare practitioners can benefit from integrating multidisciplinary approaches that involve patients as cocreators. By prioritising empathy and accessibility, other researchers can replicate this model to tackle stigmatised health topics, ultimately enhancing patient experiences across various domains. One key insight is that, despite societal taboos, patients we consulted in our initial research were eager to share their sexual concerns when they believed it could help others. We tapped into their willingness through our proof-of-concept design, which aimed to establish a shared goal of creating a practical and meaningful tool. Such facilitated dialogue not only informed the design process but also fostered trust and collaboration, demonstrating the power of design to address sensitive topics effectively. The toolkit proof-of-concept presented needs to be further developed and clinically tested to evaluate its impact on patients' lives.

## DESIGN INSIGHT

Thank you for tackling this important issue. Too often we ignore areas that we think may cause embarrassment or are rarely spoken about during medical treatment and recovery. Taking into account this is a proof-of-concept, I am impressed with the time the research team has taken to consult with patients and clinicians throughout the development of the Explorar-me toolkit.

This research team is to be praised for addressing a vital aspect of recovery that is often ignored. We need to encompass a holistic approach to patient-centred health and wellbeing that extends beyond traditional medical models. Sexual health and wellbeing are often adversely impacted during cancer treatment and

recovery. The Explorar-me toolkit is an excellent example of imaginative and innovative research that could be successfully translated into effective practice.

I can see your toolkit, and the accompanying health professional training, being extremely valuable not only in Chile but internationally. I also hope that the team might consider expanding their research into other areas of need such as maternal health where sexual health and wellbeing following traumatic birth is rarely, if ever, addressed.

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## PEER REVIEW

Not commissioned. Externally peer reviewed.

## CONFLICTS OF INTEREST

The authors declare that they have no competing interests.

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**ETHICS COMMITTEE APPROVAL**

We developed this proof-of-concept in accordance with ethical guidelines that adhere to the requirements of the Pontificia Universidad Católica de Chile Ethics Committee recommendations. We received written and/or verbal consent from all participants. Ethics approval for a clinical trial will be sought after finalising the intervention prototypes.