

TACTUS: Leveraging sensory tools for post-breast cancer body and mind reconnection

DESIGN INSIGHT

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SUMMARY

Breast cancer treatments often leave survivors feeling disconnected from their bodies, impacting their self-esteem and emotional wellbeing. TACTUS is an innovative sensory toolkit designed to foster reconnection and self-exploration using tactile tools, essential oils, and guided exercises. Feedback from patients and healthcare professionals led to a shift from a prescribed process to a personalized approach, allowing survivors to engage at their own pace. TACTUS is expected to bridge physical and emotional health, offering a holistic and empathetic proof-of-concept that promotes self-awareness and sexual health post-treatment. Future developments include refining the toolkit, exploring massage techniques to enhance recovery and prevent complications, and conducting a formal evaluation.

Key Words: Breast cancer; breast cancer treatment; body reconnection; sexual health; self-exploration

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INTRODUCTION

Breast cancer (BC) has become one of the leading causes of female mortality worldwide and the most significant barrier to increasing life expectancy in all countries around the world in the twenty-first century.¹ While survival rates have improved significantly, the treatments—including mastectomy, chemotherapy, and radiation therapy—often bring profound physical and emotional challenges to patients and survivors. These interventions frequently result in visible physical changes, such as scarring and breast tissue loss, as well as less apparent effects, including fatigue, hormonal fluctuations, and diminished sensitivity.

Survivors often experience a range of psychological impacts, including the threat of a fatal illness, diminished sense of femininity, loss of sexual confidence, fear of recurrence, and feelings of guilt.² Consequently, these experiences can disrupt body image, reduce self-esteem, and create a sense of estrangement from their physical selves. Many survivors describe their bodies as “strangers” and feel like they’ve lost something³, which hinders their ability to reconnect emotionally and physically with their bodies.

Many BC survivors experience a significant decline in quality of life due to these issues, accompanied by a lack of resources that address the emotional and physical complexities of recovery.⁴ These challenges highlight the need for holistic approaches that address not only physical recovery but also emotional healing to achieve sexual wellbeing.

SUMMARY

We designed a tool to facilitate female breast cancer (BC) survivors’ reconnection with their bodies post-treatment. Using the concept of “disembodiment”, we describe the common sensation of disconnection, where patients feel their body is no longer their own. This phenomenon reflects the interplay of physical and emotional identity. To address this, we propose sensory interventions—touch and smell—to help patients gradually rebuild intimacy with their “new” bodies.

In response, we developed TACTUS, a sensory toolkit as a proof-of-concept designed to support BC survivors in reestablishing a meaningful connection with their bodies (Figure 1). It combines tactile tools, essential oils, and evidence-based sensory guides to foster self-exploration and wellbeing. TACTUS aims to overcome challenges like disembodiment and difficulty regaining physical and emotional intimacy, offering a personalised experience that adapts to each user’s needs.

Figure 1: 3D model



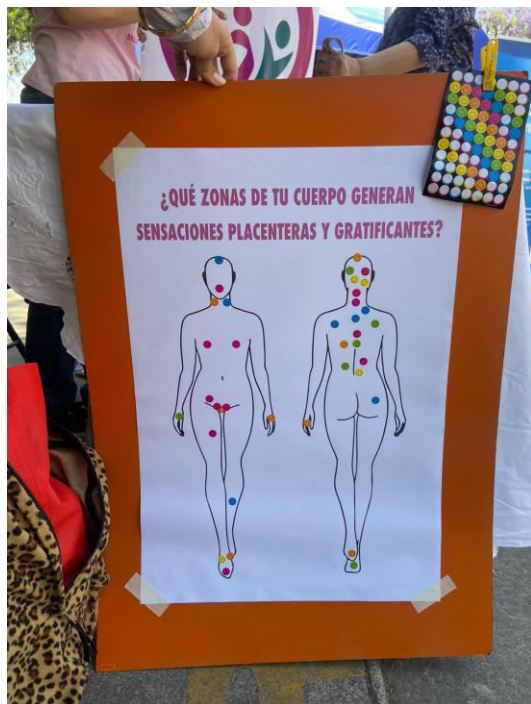
Note: 3D modelling of the final version of the “TACTUS” kit. Santiago, Chile. Copyright © 2024 Catalina Koller and Jacinta Sánchez

A critical part of this process involved understanding how survivors perceive touch, identifying body areas that evoke comfort or reconnection, emphasising touch’s role in emotional and physical healing (Figure 2).

To develop the proof-of-concept for TACTUS, we consulted with a group of patients and healthcare experts, and conducted literature reviews focused on privacy, adaptability, and ease of use. Initially conceptualised as a structured self-exploration journey, feedback we received prompted us to develop a flexible toolkit that prioritised personalisation. This shift recognises the unique and individual nature of

body reconnection, and underscores our goal to empower survivors to explore at their own pace and address their specific needs during recovery.

Figure 2: Participatory sensory women’s body mapping



Note: Women were asked to identify sensitive areas of their bodies that elicited satisfaction, pleasure, and gratification using coloured markers.

LESSONS LEARNED

TACTUS may address a critical gap for BC patients by introducing tools that facilitate conversations about sexual health, self-awareness, and emotional impacts often overlooked in traditional care. While touch is commonly associated with connection, its role in emotional containment and recovery for women experiencing disconnection had not been explored. We anticipate that future testing of TACTUS will demonstrate the transformative potential of tactile experiences in fostering emotional healing and self-reconnection.

This project designed a tool with primary focus on empathy and patient-centred design in health contexts. Consultation with patients suggested the importance of respecting vulnerabilities and ensuring that interventions provide meaningful contributions. TACTUS’s unique approach combines physical and emotional support, bridging self-care, pleasure, and mental wellbeing to create a holistic patient experience. By fostering secure spaces for exploring personal topics, we believe it will strengthen patients’ relationships with their bodies and promote self-acceptance.

Further refinement could potentially expand the toolkit’s impact, including exploring massage techniques to prevent health complications. These additions should be validated through clinical testing to provide scientific foundation for the toolkit. The insights from TACTUS might offer valuable guidance for designers, researchers, and healthcare professionals, underscoring the importance of interdisciplinary

approaches in addressing complex health challenges. This project needs to be further developed and formally evaluated to illustrate how integrating diverse knowledge can enhance patient wellbeing and quality of life.

DESIGN INSIGHT

Breast cancer survivorship often brings significant physical and emotional challenges, including body image disturbances, sexual dysfunction, and a sense of disconnection from one's body. In this context, TACTUS, a sensory toolkit designed to aid survivors in reconnecting with their bodies, offers an innovative approach by fostering self-exploration and emotional healing. This patient-centred intervention may empower survivors to regain a sense of agency over their recovery, addressing sensitive topics like body image and sexual health in a private and adaptable manner. By integrating physical recovery with emotional wellbeing, TACTUS exemplifies the potential of health care to improve the overall quality of life for breast cancer survivors.

This approach is not without limitations, however. The effectiveness of TACTUS may vary significantly depending on individual preferences, cultural attitudes toward touch, and personal comfort levels with self-exploration. Additionally, while it addresses emotional and psychological needs, it does not replace the need for professional mental health support or medical interventions for physical complications such as lymphedema or chronic pain. Further research is warranted to validate its efficacy across diverse populations and to explore its integration into broader survivorship care plans. Despite these challenges, TACTUS represents a promising step toward addressing the multifaceted needs of breast cancer survivors in a more holistic and empowering way.

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PEER REVIEW

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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 obtained from all participants who answered questions to help us develop the TACTUS toolkit. Ethics approval for a clinical trial will be sought after finalising the intervention prototypes.