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Breast Dressing: A Critical Review of Post-Surgical Bras

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BREAST DRESSING:

A CRITICAL REVIEW OF POST-SURGICAL BRAS

by

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This manuscript has been read and accepted for the Graduate Faculty in Liberal Studies in satisfaction of the thesis requirement for the degree of Master of Arts.

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ABSTRACT

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Breast cancer is acknowledged in the United States as a phenomenon. With more than 3 million women either diagnosed or treated for it as of 2019, it is a seminal part of the American healthcare map. However, the market for the kinds of bras and bandages patients have to wear after surgery remains mostly overlooked and outdated. This thesis aims to explore what it means to bandage or dress a breast that has been altered either in combative or cosmetic procedures. Why post-surgical wound care for breasts still mostly looks like a sports bra? How do breast cancer patients rehabilitate and reconcile their bodies, when society expects women to look "whole" and "sexy"? How is gender inequality woven into the interaction between doctors, insurance providers, and patients? Are post-surgical bras a medicalized item? Through an amalgamation of market research with a literature review, this thesis considers the world of post-surgical bras as a social and medical continuum. Within this continuum emerges EZbra, a new fem tech product created by a breast cancer patient. Since EZbra was created to fill a void in the market, its very existence is commentary on the market itself. Therefore, in addition to evaluations of EZbra the product through different theoretical strains, the analysis likewise incorporates interviews with the company heads. Is EZbra itself merely symptomatic of the breast cancer continuum, or is it criticism of the healthcare system at large?

ACKNOWLEDGMENTS

I am infinitely grateful to Efrat Roman and Yael Gibor for introducing to me this world. If it weren't for their frank discussions on what breast cancer means to women who have to be treated for it, I might not have ended up writing this thesis. Even though I saw it everywhere, breast cancer seemed like a bad period in a woman's life, and not like a life changed. I didn't think about what daily life with breast cancer is like beyond cultural tropes. I didn't think about how it stands in the middle of a maelstrom of medicine and performance. I am also grateful to Dr. Eyal Gur, chief medical consultant for EZbra, who sat with me and patiently described his life as a cosmetic surgeon, elaborating on procedures and products when needed. I am thankful to Dana Donofree, who talked to me for over an hour about her business and the post-surgical market, and made herself available for further communication.

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CHAPTER 1: INTRODUCTION

I would like to start this introduction chapter with a scenario I believe many would recognize: one morning, a woman stands under the shower spray and suddenly feels a lump in her breast that was not there before. She tries to palpate it, her mind racing. Do I have breast cancer? Is that how it starts? She tries to think back on all those self-exam diagrams she's seen on the internet. Is it warm? Is her skin pebbled? What should she do? She steps out of the shower in a state of panic. Maybe she has a loved one. She asks them to feel up her breast. What do they think? She searches for tips on what to do. She eventually goes to see a doctor, gets sent to a mammogram, and later, a biopsy. It comes back positive. It's early, but it's cancer. If she has insurance or some sort of health coverage, the conversation veers very quickly toward surgery. A BCS or a mastectomy, and maybe some sort of continuing treatment. It's so fast. She barely has time to even digest that she has cancer before she sees the results on her body. She does whatever the surgeon says to do, buys what he tells her to buy. She asks around for advice on what to do for the first few days after. There's no stopping this now.

This hypothetical woman perhaps doesn't apprehend several things have happened to her body: by being diagnosed with breast cancer, she has entered a kind of continuum in the medical system in which she is now forever marked as diseased. She has undergone a process of biomedicalized objectification in which her body is now a site for combative and cosmetic procedures. She has unwittingly joined a sisterhood infiltrated by rogue charities and corporate powers seeking to make money off her misery. She is now under additional social scrutiny: is that a wig because of chemotherapy? Did she get implants? Are those her eyebrows? Did she gain weight from her treatment? If she lost weight, does that mean she's worse? All of these are new conversations in her life that she did not consent to, nor willed to be part of. But it's the

reality of breast cancer in the United States in the 21st century.

Breast Dressing is primarily about the kinds of wrappings placed around the breast area for breast cancer patients. It's about bandages and bras, about wound compression and holding drains, about scars and newly molded breasts. It's also about a system in which women are beholden to additional rules and regulations on the way their breasts should be covered or shown. It's about a medical world in which the majority of patients are women and the majority of doctors are men. It's about gatekeeping in form of nurses, hospital buyers, and health insurance providers. And it's about a niche market that nonetheless serves millions of women in the US alone. Academically, it's about the writings of mostly female scholars who were either deeply affected by their own diagnoses, or chose to write about other women's. It's about feminist, queer, and dis/ability theorists trying to mold the field of philosophy, so male-driven, into their own worldviews. Consequently, it's about power struggle.

In the process of acquainting yourself with this thesis, you will first read about the market for post-surgical bras and bandages. You will be given the statistics I managed to gain access to and speculation about what I could not. You will learn about how and when breast cancer patients have their breast areas bandaged for them and what they do in the preliminary period following their surgery. You will learn about some of these patients' new lives. Then, you will read a more theoretical analysis on how post-surgical bras function as fashion items, and whether they should be considered to be medicalized items. Finally, you will be introduced to EZbra, an Israeli company currently marketing a new surgical-grade product which combines a bra and a bandage. You will see how this product works within a system that has never seen one of its kind before, and how it could potentially revolutionize treatment for breast cancer patients both medically and emotionally.

How did I get to write and research about this topic? In the summer of 2016, I flew to Tel Aviv to sit *shiva* for my maternal grandmother. Among many of the extraordinary women who came to console our family, two in particular stood out for me. Efrat Roman and Yael Gibor, founders of EZbra, told us about their experiences with breast cancer so eloquently. My mother, who knew about their company, made a passing joke about an eventual case study at Harvard Business School. I remember thinking to myself, I don't want Harvard to do this case study. I want to do it. This idea changed the course of my academic life.

In the process of working on my thesis, every professor, colleague, or friend who discussed it with me had the exact same reaction: "it's a very grim subject, isn't it?" and always in the same sort of tone, that *could you not come up with a different topic* tone. Women constantly, unconsciously covered their chests when I discussed my research with them. My own mother initially could not understand it, she was the one who introduced me to EZbra's women. In truth, breast cancer doesn't occur in my family. We have no genetic history of it, and we luckily never experienced a diagnosis either way. But that doesn't mean breast cancer doesn't surround our lives. I see it everywhere.

I saw it in the voice teacher I had in high school who never confessed her diagnosis to me, even when I saw her in a wig and no eyebrows. I saw it in the 28-year old wife of a friend who ended up with a tattooed incision scar. I saw it in the mother of a childhood friend who died of a metastasized reoccurrence, leading her daughter to eventually undertake a preventative double mastectomy. I read it in the *New York Times* one morning, when Angelina Jolie decided to come forth with her own fears and trauma. I heard about it from a woman I met in dance class, who voiced her struggles. Breast cancer is a topic that seems grim only to people who still see it as a distant fear. Those who unfortunately experienced it as a viable threat were open and honest

with me, when I told them of my intended research.

By reading this thesis, I hope you will gain better understanding of the post-surgical bra world, which is underrepresented in academic research. I hope you will understand how vital it is to research what is happening in the post-surgical market, because breast cancer patients feel its effects deeply. I hope you will understand how granular the world of post-surgical bras can get, compared to the outside forces influencing it. I also hope you will learn about the extraordinary history of breast cancer advocacy in the US, and its current implications. I hope you will understand that, as prominent a cause breast cancer is, patients have varied experiences of it partly due to this prominence. Finally, I hope that any breast cancer patient reading this thesis will feel that she is seen and heard. As someone who grew up in a country with universal healthcare, I firmly believe that patient rights are of utmost importance in the current condition of the American healthcare system. I stand by their side.

CHAPTER 2: UNDERSTANDING POST-SURGICAL BRAS AND BANDAGES

The World of Breast Cancer: Terms, Procedures, and Aesthetics

This chapter offers a primer on the main themes in *Breast Dressing*, as they pertain to breast cancer and its culture: breast cancer definitions and procedures, breast reconstructive surgery categories, post-surgical bras and bandages, and breast prostheses. This will hopefully illuminate the relationship between breast cancer patients and their treatments, the product market, and how feminist and sociological theories factor in the discussion. This introduction would also be valuable to understand the innovation EZbra offers in the chapter on the company. The information in this chapter stems from scholarly work, discussions with plastic surgeons and breast cancer patients, and research of online shopping hubs both general and specific to breast cancer culture.

Breast Cancer: Diagnoses, Procedures, Further Treatment

While breast cancer treatments are widely publicized, this part of the introductory glossary will offer explanations for all breast cancer-related procedures. The use of post-surgical bras and bandages is present at every stage of breast cancer, from diagnosis to remission. Therefore, it is important to explicate when and how they operate.

According to the American Cancer Society (or ACS), there are four types of breast cancer in existence: luminal A, triple negative, luminal B, and HER2-enriched. There's also an early diagnosis (also called "in situ" or "stage 0") of breast cancer, where a benign tumor that has yet to spread (or invade) into nearby tissue is discovered. The ACS estimates that in 2019, more than 268,000 cases of invasive breast cancer will have been diagnosed in women and more than 2,600 in men. The mortality rate of breast cancer is roughly 42,000 women and 500 men a year. It should be mentioned that the mortality rate of breast cancer has been in steady decline since

the 1990s. As of 2016, there have been 3.5 million women living with a history of breast cancer in the US, either in treatment or in remission.

Generally speaking, the two leading ethnicities of women diagnosed with breast cancer in the United States are Caucasian and Non-Hispanic Black women. While statistics show near-equal numbers of patients, Non-Hispanic Black women are likelier to be diagnosed with triple negative breast cancer (which does not respond to anti-hormonal therapy), at a younger age (their median age is 59 as compared to Caucasian women's 62), and with the highest mortality rate (due to a myriad of factors, one of which is widespread racist attitudes in the medical community toward them). Breast cancer also has a genetic component, the importance of which has been widely researched and applied to diagnostic tools. Women who have had a close family member (a mother or a sister) with breast cancer diagnosis are at a significantly higher risk for breast cancer themselves, regardless of the presence of the BRCA genes.

Diagnostic Methods

The most widespread initial diagnostic tool for breast cancer is manual check. This can be done by the woman suspecting she might be ill, or by a person she trusts to touch her (whether it's a loved one or a medical professional). Thorough manual checks are performed with no clothes on, as some of the symptoms of breast cancer can be seen or felt in the skin.

If a breast cancer diagnosis is suspected, the woman can undergo a mammography. In this procedure, the breast is flattened by an x-ray machine in order to be able to get a clear view of any tumors. Women in menopause are encouraged to have an annual mammography, as they're at a higher risk of a diagnosis. Mammography, however, is a controversial method of diagnosis, as it is commonly reported to be either a very uncomfortable or actually painful method of detection.

The most invasive (but most accurate) form of verifying a breast cancer diagnosis is by biopsy of the suspected tumor. Analysis of an extracted sample of tissue or fluid can show whether the tumor is malignant or benign. There are three types of biopsy procedures that can be performed in this case (two by needle, one by surgery), depending on which kind of sample is wanted. Biopsies can be performed either under local or general anesthesia (as in the case of surgical biopsy).

Breast Cancer Prognoses

If the breast tumor biopsy shows cancerous cells, the following steps depend on three things: what kind of breast cancer is diagnosed, how large is the tumor, and whether it has spread to the lymph nodes and other organs. The course of treatment is decided depending on the severity of the diagnosis and the type of cancer found. There are several combinations of treatment methods, ranging from BCS (breast conservation surgery), mastectomy, chemotherapy, radiation therapy, and anti-hormonal therapy. The majority of early and mid-stage (I-III) breast cancer patients undergo a combative surgical procedure, followed by radiation and/or chemotherapy. Late-stage (IV) breast cancer patients often forego a surgical intervention and undergo a combination of radiation and chemotherapy.

Combative Procedures for Breast Cancer

The two most common surgical methods of surgical intervention for breast cancer patients are breast-conservation (lumpectomy or partial mastectomy) and full mastectomy procedures. Breast-conservation surgeries (BCS) only entail removal of the tumor itself and any affected tissues. This may or may not include removal of the nipple as well. BCS is most common during Stage I/II diagnoses, as the tumor is yet to invade the lymph nodes and nearby organs. However, both in BCS and in mastectomies, there is the possibility of removing the

lymph nodes.

In the case of a full mastectomy, the breast tissue is entirely removed. This rarely ever includes the muscle tissue under the breast nowadays (also known as a radical mastectomy), as breast cancer seldom invades that area. However, surgical procedures such as these are subject to the agreement of the patient, and many patients who are eligible for BCS still choose to undergo a mastectomy instead (ACS). Mastectomy can be performed on one or both breasts, depending on the spread of the cancerous cells. In addition, many women (and most famously, Angelina Jolie[i]) who test positive for the BRCA genes and have a history of breast cancer in close family members opt to undergo preventative double mastectomies to eliminate any future occurrence of the disease. There is a lot of debate in the medical community whether this is necessary. As one can see, the psychological weight of combating this diagnosis weighs heavily in surgical consultations, and even more so for reconstructive surgery.

Post-Surgical Treatment

In the majority of breast cancer diagnoses, surgery is not the end of combative treatment against the spread of the disease. Any combination of radiation, chemotherapy, and anti-hormonal therapy can be used to further reduce the spread of cells, depending on the type of cancer and what stage it is in. Many women undergo one or more cycles of combative therapy in order to completely stop the spread through aggressive courses of treatment, all of which have debilitating side effects, some permanent. The timeline of any of these therapies can stretch from weeks to years (as is in the case of anti-hormonal therapy, which can go up to 5 years after surgery).

Understanding Breast Reconstructive Surgery

Historically speaking, Breast reconstruction is a procedure that essentially goes hand-in-

hand with the modernized version of mastectomy procedures. The earliest account of breast reconstruction dates back to 1895 with a surgeon by the name of Vincent Czerny, who tried an early method of autoplasty to cover post-mastectomy breast defects. The name of the patient he operated on is unknown (Woodman 73). The inception of breast reconstructive surgery lies in attempts to combine early versions of breast augmentation procedures in plastic surgery with the medical community's attempts to mend the bodies of patients who have undergone the Halstead mastectomy (the leading combative procedure at the time). Though it is related to breast augmentation, reconstructive surgery doesn't answer a need for bigger or higher breasts, as it works with an area that has been incised. In its current manifestation, reconstructive surgery is divided into two major categories: autoplastic and alloplastic. Generally speaking, more than 100,000 reconstructive procedures are performed in the US every year (American Society of Plastic Surgeons).

Autoplastic reconstructive surgery refers to a type of procedure in which the surgeon uses the patient's own healthy tissue to construct a new breast or reshape an existing breast. When shaping a new breast, the surgeon normally relocates fatty tissue from the stomach area into the breast area. The tissue is then shaped into a breast that is symmetrical to the patient's other breast. This procedure is, in fact, a double procedure: by relocating fatty tissue from the stomach, the surgeon essentially performs a "tummy tuck" (abdominoplasty) in addition to breast reconstruction. The newly shaped breast has the advantage of feeling similar to the removed breast, as it is warm to the touch. In the case of reconstructive surgery for BCS, the surgeon rearranges the existing breast into a shape that does not look incised.

The current leading autoplastic reconstructive procedure performed is the DIEP Flap. In this procedure, the plastic surgeon only uses fatty tissue to construct a new breast for the patient

right after the mastectomy. This is a procedure that has better success rates than the previous leading procedure technique: the TRAM Flap[ii]. In the TRAM Flap, the plastic surgeon used both fatty tissue and part of the abdominal muscle from the patient to construct a new breast. This procedure was considered hard to recuperate from, as it was essentially as traumatic for the patient's body as the mastectomy. In comparison, the DIEP Flap is easier to recover from, though it too is longer than recovery from alloplastic procedures.

Alloplastic reconstructive surgery is a procedure in which the incised breast is replaced with an implant. Though it sounds more old-fashioned than autoplasty, alloplastic surgery has developed much in the past decade. For breast cancer patients who do not have to undergo radiation therapy, it offers immediate, full reconstruction, much like autoplastic surgery. While in the past this was usually divided into two separate procedures, nowadays, they occur during the same procedure: after the oncological surgeon finishes the mastectomy, the plastic surgeon steps in and immediately reconstructs a new breast using an implant and the patient's own skin. While the implant is harder and colder to the touch than live tissue, an alloplastic procedure offers a shorter and easier recovery process for the patient.

There are, of course, exceptions to these procedures. For example, women who have to undergo radiation therapy after their mastectomy cannot undergo immediate reconstructive alloplastic surgery. In these types of cases, the procedure would be divided into a mastectomy and delayed reconstruction. However, there is a second option in alloplastic surgery which potentially alleviates the feeling of loss: during the mastectomy, the surgeon inserts an "expander" form under the muscle, which can then be periodically inflated using saline shots. In theory, this allows the skin to slowly stretch into a new breast shape with temporary fluid. Once the radiation therapy is over, the expander is taken out during alloplastic surgery and a

permanent implant is inserted instead into the area. While this is a longer process, it eventually allows for a shorter recovery overall.

Understanding post-surgical bras and bandages

What do the terms "post-surgical bras" and "post-surgical bandages" mean? As the topic of *Breast Dressing*, post-surgical bras should be clarified to those who might not be acquainted with them. Both post-surgical bras and post-surgical bandages refer to different points in women's recovery from all mammoplasty procedures. They have multiple uses and are an indispensable part of the recovery process. In the case of breast cancer, their meanings compound.

"Post-surgical bras" refers to two different types of bras used in recovery and remission phases for breast cancer patients. One type is an actual bra used for bandaging after the surgery is performed (either BCS or mastectomy). The surgeon places the post-surgical bra on the patient while she's still under general anesthesia in the operating room. This bra is soft, with no underwire, and fastens at the front (fig. 1). Its purpose is mainly to cover the incision line and hold any drains at the lymphatic area (armpits) if they are placed. In some cases, this bra is given to the patient by the hospital. In other cases, the patient purchases it either with or without the surgeon's recommendation. As designs of post-surgical bras of this kind have been largely borrowed from sports bras, they offer a greater degree of compression than t-shirt or push-up bras, for example. However, these bras are not without problems: because of the design, they also rely on shoulder straps, which is a problem for post-mastectomy breast cancer patients. When the breast is incised into, the skin and probable

Figure 1. Post-Surgical Bras with front closure.

parts of the pectoral muscle are damaged, making it nearly impossible to lift one's arms unassisted. This problem is compounded when the lymph nodes are also removed, damaging lateral and shoulder muscles.

The levels of compression required from post-surgical bras of this kind vary according to surgery type. In the case of a BCS or a full mastectomy with no reconstruction, compression is very important, as it prevents infection. The bra serves as part of the wound treatment, and it also holds the drains in place. However, if immediate reconstruction is performed, especially autoplastic reconstruction, the bra should not compress the breast at all. In this case, the purpose of the bra is to only cover the wound. It should especially not have any pressure on the underside of the breast, as that's the location of the incision line.

The second type of post-surgical bras is intended for women who eschew reconstructive surgery either temporarily or permanently. In lieu of a breast implant or molded breast, the bra offers room for a prosthetic insert of a breast shape in order to create the illusion of symmetry and wholeness (fig. 2). There are also prosthetic inserts available for women who undergo BCS. The prosthetic inserts vary according to material type and occasion, and they are offered in a range of standardized sizes, skin tones, and activity style. For instance, there are different types of prosthetic inserts and bras for patients who engage in cardiovascular activity or swimming. Inserts can be placed in bras or glued to the patient's chest with an adhesive. Prosthetic inserts in standardized sizes cost between $100-$300 an insert, and they are not commonly covered by health insurance. Additionally, there are also prosthetic

Figure 3. Examples of prosthetic inserts.

Figure 2. Examples of nipple prostheses.

nipples for prosthetic inserts that don't feature a nipple design. They have a wide range of prices according to material, adhesive, and make (fig. 3). Women who undergo reconstructive surgery also tend to opt for prosthetic nipples, as mastectomies often cannot conserve the skin around the breast, including the nipples.

In breast cancer culture lingo, the kind of post-surgical bras that can hold a prosthetic insert are referred to as "pocket bras," meaning the pocket where the prosthetic insert goes into (fig. 4). Other than those pockets, however, the bras have a similar aesthetic range to bras on the more conservative side of the mainstream market, and they fit all kinds of activities and occasions. Several leading brands of "pocket bras" place a great emphasis on the desirability of the design. Many of the bra designs contain lace and satin-like materials.

Figure 4. Examples of "Pocket Bras."

"Post-surgical bandages" is a term referring to the surgical-grade bandage placed directly on the incision line of the women operated on. The SilversteinWrap (fig. 5) is an example of a post-surgical bandage aimed specifically at women who undergo mammoplasty procedures, particularly breast cancer-oriented ones. Bandages are most often used in all kinds of procedures: breast biopsies, radiation therapy, non-reconstructive BCS or mastectomy, and immediate reconstruction using a chest expander. In most of those cases, the bandage is first placed on the woman during surgery, then redressed by a medical professional, whether it's a surgeon or a breast cancer nurse. It is essentially wound


Figure 5. The SilversteinWrap.

dressing, and it is temporary.

Conclusion

This chapter serves to help the reader better understand the world in which breast cancer breast dressings operate. Women who have been diagnosed with breast cancer often have to buy several types of these dressings during the course of their treatment. In the conversations I have had with patients, many confessed to discarding their used post-surgical bras once they did not need them, even if there were a chance they would be needed again in the future. This places breast dressings not quite at the same level as regular bras, as those are intended for long-term use. The psychological component of breast dressings is also significant, as they make the trauma of the surgery either increased or decreased according to levels of comfort and aesthetic satisfaction.

In the following chapters, all of the breast dressings described here would be debated in several different ways: first, they will be investigated as borderline products between the fashion world and the medical world. This will include considering them as an example of medicalization, such as it is defined in the medical sociology world. Other theory strains, such as Foucauldian, Butlerian, and dis/ability, will shed a different light on breast dressings as both a symbol and a step in the normalization process for breast cancer patients. They will also show how breast cancer in general has been pushed into the public health agenda, and how it contends with the extensive fetishization of breasts in Western society. Finally, the product created by EZbra will show how breast dressings can further improve in design and usage to help breast cancer patients recover. This will include personal interviews with the people involved in the making of the product and company, as well as others in the breast dressing world. Hopefully, this examination of breast dressings will deepen the understand of their dichotomous existence as

intimate recovery aids and symbols of objectification and self-worth.

CHAPTER 3: POST SURGICAL-BRAS AND BANDAGES – BETWEEN FASHION AND MEDICINE

Introduction

Of all the cancers in existence, nowadays, breast cancer is the most well-publicized. Consequently, breast cancer-related causes have raised the most amount of money. In 2011, Lea Goldman wrote for *Marie Claire* that breast cancer causes (medical or social) raise in the upwards of six billion dollars annually. Goldman then investigated how fashion houses try to boost sales and publicity by marketing pink clothes and accessories every October (Breast Cancer Awareness Month) in the US. This is certainly well-trodden ground. Pink ribbon culture is a corporate, well-oiled money machine, as Gayle Sulik marked in *Pink Ribbon Blues*. While its seeming target is to raise awareness and publicly support breast cancer patients, not much good comes out of it in reality. And, most notably, the post-surgical bra market rarely sees any new developments from it.

Post-surgical bras are not products often thought about by the general public. For this reason, it's important to consider them in relation to the women who wear them. It is also important to consider how and why post-surgical bras function as a fashion item and a medical item, both in theory and in practice. Therefore, in this chapter, I attempt to trace the history of the two general types of post-surgical bras and how they are connected to the fashion industry. I then link their existence to feminist theory, the rise of the Women's Health Organization in national discourse, and finally how dis/ability theory relates them to medicalization. Foucauldian theory is used extensively in order to understand how notions of bio-power and discipline shape female breast cancers patients' lives, as they purchase post-surgical bras for medical treatment, recovery, and general lifestyle.

Post-Surgical Bras in the Fashion Sphere

In order to trace the timeline of post-surgical bras, a division should be made between the bras intended for wound dressing and bras with prosthetic inserts. According to Erin Pappas in *Cultural Encyclopedia of the Breast*, the origins of the wound dressing bras can be directly traced to the first designs of sports bras in the 1970s by Lisa Lindhal and Hinda Miller (fig. 6). Both were graduate students who enjoyed running, but wanted a bra that would greatly reduce the bounce of their breasts. Their initial design entailed two jockstraps sewn together, ironically enough, and part of it still lives in "racerback" sports bras (227). This idea of semi-comfortable compression translated into post-surgical bras, just in softer fabrics and no underwires. Post-surgical bras with prosthetic inserts ("pocket bras") can be traced back to the first "breast kits" from *Reach to Recovery*, though the first prosthetic breast design dates back to the 1880s.

Figure 6. The original "Jockstrap Bra."

Like much of what we consider to be disposable fashion, lingerie is a market that relies on wear-and-tear and is therefore in constant growth (Statista.com). Within the lingerie market, however, the growth of bra sales hinges on several components: they are often more expensive on average, bring up questions of correct size and fit, and require their users to own different kinds for different clothes' shapes and occasions. While bras are arguably made of more durable material than, say, underwear, they also are more prone to losing their elasticity and subsequent function. After all, if a bra can't hold up the breasts it encapsulates, it's not a good bra. While there are ongoing discussions on how a bra is supposed to fit and how it's supposed to work, the

market nonetheless has standardized size ranges both in band and cup, as well as specific shapes and designs (t-shirt bra, pushup bra, etc.).

As mentioned earlier, post-surgical bras are either a step during rehabilitation for the wearer, or provide ongoing support to the wearer for the rest of her life. This is the case with post-mastectomy patients who opt for wearing a prosthetic insert in their bras. The medical benefits of post-surgical bras lie not only in wound compression (as long as the bra is the correct choice for the patient), but also offer drain support and aid in preventing dermatological side effects (such as lymphedema). In the case of breast cancer patients who choose breast reconstruction, the post-surgical bra helps keeping the shape of the new breast a certain way in order to expedite the healing process. This, however, is what they ideally do.

The reality of the post-surgical bra market is more complicated, and often involves cases in which the healing process is regressed rather than progressed. As Samantha Crompvoets found in her research on bras with prosthetic inserts, the benefits of wearing them are far from what the advertisements or doctors claim: women who use them described a life full of discomfort coupled with fear of wardrobe malfunctions, and unforeseen problems with product maintenance. A lot of the problems account for the prosthetic inserts themselves, rather than the bras. This is potentially true for other types of post-surgical bras. That being said, post-surgical bras with prosthetic inserts are still considered the better option than a post-surgical chest binder (Laura et al.).

Post-Surgical Bras and the Rise of Women's Rights

The question of aesthetics concerning post-surgical bras is important for a very simple reason: it's a product that, in theory, provides physical and mental aid to its wearers. It tackles issues at the heart of the feminine bodily experience within patriarchal society and the internal

misogyny it promotes: what happens when the "whole" feminine body is disrupted, particularly in the breast area? As women's breasts are so widely fetishized in mainstream American culture, the disrupted female body was hidden in shame for a long time. This disruption was brought into light by The Women's Health Movement (WHO) and Second-Wave feminist scholars in their own separate ways.

Starting in the late 1950s, WHO activists took to confronting the medical establishment on its injurious treatment of breast cancer patients. They promoted the right of women to choose their treatment courses, including the types of surgery they should undergo. They successfully fought for the modification of the Halstead radical mastectomy into procedures that were not as needlessly mutilating (such as a modified mastectomy or BCS). They also created *Reach for Recovery*, a widespread volunteer organization intent on aiding breast cancer patients in their initial recovery from surgery. Its role lay in disseminating knowledge, giving a moral boost, and supplying a small kit which included a lamb's wool form to imitate the look of the lost breast in a bra (Lerner).

Post-Surgical Bras within Pink Ribbon Culture

Samantha Crompvoets discusses how society inscribes femininity as one where the female body must have two healthy breasts, and how heavy this psychological weight is on female breast cancer patients. Though her research focused on how the marketing of breast prostheses uses this kind of bodily inscription, it is important to note that post-surgical bras are part of the process: the return to everyday routine, including wearing a bra, is considered normal. This particular kind of normality is also a social construct that heavily leans on what American sociologists have called "pink ribbon culture."

In the book *Pink Ribbon Blues*, Gayle Sulik tackles pink ribbon culture: the American

mainstream culture of women who have been diagnosed with breast cancer. As a disease that mostly attacks women (90% of the patients), breast cancer was promoted to the public agenda in the 1970s and only became more visible since. It is a disease that attacks women at one of their most vulnerable areas, and not because breasts are more important organs than others: breasts, as perceived in American culture, are a Western aesthetic construct, and they are directly related to what the public considers to be the "worth" of a woman. To the general Western public, a woman who possesses a diseased or mutilated breast is a lesser woman. It is a concept so pervasive in the aesthetic ideals seen every day in mainstream media, even women who do not have breast cancer modify their breasts in order to fit those ideals. The situation is many times harder for breast cancer patients.

In her discussion of pink ribbon culture, Sulik echoes sentiments most famously described by Barbra Ehrenreich in her *Harper's Magazine* essay, "Welcome to Cancerland." Ehrenreich and Sulik discuss this culture as both insular and corporate. Breast cancer is the most profitable type of cancer for health service providers, and therefore insidiously attractive to health insurance providers. It also has the inauspicious combination of being a highly publicized private disease: it attacks women in huge numbers, meaning "everyone knows someone," but it also attacks women in a way that causes them to feel even more insecure. This is partially why a beauty market exists solely for the purpose of helping ill women perform health. Society cheers those women on their "fight" while simultaneously shames them for their consequent appearance.

Post-Surgical Bras within Critical Theory and Feminist Theory

In order to understand what it means to have a diseased breast and why so many women seek to hide them from the public with prosthetic inserts and special mastectomy bras, this

chapter will turn to feminist and dis/ability theory for explication. Practically all theoretical constructs discussed in this part are based on the social theories of Michel Foucault. Because of this, there are varying interpretations of his work. As Foucault discussed the invasive and damning influence of social institutions on people in the public and private spheres, his theories can be elucidated in different ways according to each philosophical stream. However, all of the following interpretations are legitimate in their connection to the post-surgical bra market, particularly the prosthetic-insert "pocket bra" market, which is singularly discussed in here.

The most broadly known feminist interpretation of Foucault's work in our time comes from Judith Butler. In her works on gender performativity/citationality and embodiment, Butler deconstructs what society conceives as gender and the body. Both, she theorizes, are not natural concepts and have never been so, are constructs created by public institutions in order to govern people. Society learns how to perform gender in order to fit in, trying to fulfill the criteria set for what is considered to be an ideal body. In other words, anyone who challenges those criteria, whether they are not part of the gender binary, are not heterosexual, are not Caucasian, or are not able-bodied, is ostracized and eventually punished. Butler concerns herself with the materiality of human existence because human bodies are governed material.

The notion of materiality is a concept Zillah Eisenstein raised in her own partial autobiography on her life as a breast cancer patient, *Manmade Breast Cancers* (2001). As an Ashkenazi Jewish woman with a family history of breast and ovarian cancers, Eisenstein tries to balance breast cancer within the private and the public spheres of the disease. In the public sphere, she is part of a group historically marginalized by medical research at large and specifically when it comes to breast cancer. In the private sphere, she is a woman who tries to reconcile the manifold identities of herself in her own body as it goes through the ups and downs

of health and illness:

> "My breast cancer body does not say enough about how other body demands have choreographed my life. Although breast cancer has often suffocated me and I have felt like there is almost no air to breathe, my body has had other selves. I am never simply my cancer because I have other bodies *and* I am something besides my body struggles. But meanings and discourses continually invade this process of knowing anything. I make myself think that I am never just my body, and yet I know my body can consume and destroy me" (42).

Eisenstein's frankness in her writing on the tension between the hardiness and vulnerability of women's bodies and the attempt to theorize it within known (male-created) philosophies is a theme that echoes in many famous "mammographies" (breast cancer-themed autobiographies). The most well-known of these in the genre are Audre Lorde's powerful self-chronicles *The Cancer Journals* and *A Burst of Light*. In these two volumes, Lorde describes her struggles both with her (ultimately terminal) diagnosis and the medical establishment's treatment of breast cancer patients. Most famously, Lorde denounces in *The Cancer Journals* opting for breast reconstruction and breast prostheses, writing that "[to] imply to a woman that yes, she can be the 'same' as before surgery, with the skillful application of a little puff of lambs-wool and/or silicone gel, is to place an emphasis upon prosthesis which encourages her not to deal with herself as physically and emotionally real, even though altered and traumatized" (56-57).

Though some feminist theorists consider Lorde's opinions on prosthetics and reconstruction to be emblematic of modernist sovereign models (Ehlers 123-124), it nevertheless remains that Lorde's writing advocated strongly not only for breast cancer patients, but especially for the bodily experiences of Women of Color with the disease. Lorde vocalized the difficulties of living with breast cancer in a culture that still seeks to quiet and shame ill women, where doctors and nurses still overwhelmingly mistreat Black women[iii]. Her writing aided in

building momentum towards the Women's Health and Breast Cancer Rights Act of 1998, six years after she passed away (DeShazer 40-41). Lorde, then, had significant influence on the public discourse in the way breast cancer is seen, not only as a disruptor of women's lives, but also as a disruptor of socially acceptable bodies.

The politics of materiality in women's bodies, especially those with breast cancer, call into question the notions of norms and normality. As Nadine Ehlers writes, Audre Lorde's journals depict norms as a "top-down manner" of forcing a set of constructs on peoples' bodies. However, Ehlers then complicates Lorde's views as she conflates them with Michel Foucault and Judith Butler's writings on norms as "regulatory ideals" through which "bodies come into being" (124). In other words, Butler's Foucauldian writings on bodies describe embodiment as a way for people to construct themselves, rather than being made to construct by institutional power. This is especially evident in Butler's writing on "doing gender."

Gender performativity (or, as Butler later called it, citationality), is the concept of human behavior that reproduces gender that agrees with societal norms. When women feel as if they have to present themselves as feminine, they reproduce femaleness as a gender. Tied to this gender are notions of a certain kind of attractiveness and softness that appeals to heterosexual men educated to perceive only that kind of femaleness as desirable. As this is the most common form of female performativity promoted in Western society, it's no wonder why women feel compelled to perform it at all times. This kind of performance also has to do with the psychological comfort breast cancer patients feel when they opt for additional surgery beyond the one intended to save their lives. There is nevertheless an even more sinister side to this particular phenomenon.

Breast cancer-related surgeries often result in a pair of misshapen breasts, or even a

situation in which one breast has been removed, creating the possible need for either reconstruction or prosthetic inserts. In her paper on the medicalization of women's breasts, Magdalena Wieczorkowska specifically explains breast cancer surgical procedures and their consequences as a phenomenon that could be interpreted through Michel Foucault's theories of bio-power: by raising national awareness for breast cancer as a leading, preventable cause of death for women, political and medical institutions categorize it as a danger to society. As a result, women diagnosed with breast cancer are defined, as Wieczorkowska writes, as "an object of biopolitical decisions and medical interventions," unlike healthy women seeking plastic surgery procedures (165). By this, she means that BCS and mastectomies are government-endorsed procedures which alter the female patient's body with the intention to cure her cancer and transform her back into a healthy citizen.

Wieczorkowska also points out that the lack of recognition for breast cancer patients' physical and emotional needs directly clashes with Western society's concepts of aesthetic ideals (168). Female breast cancer patients first experience the medicalization of their breasts by institutional power (which robs them of their conditioned self-image). They are then made to conform to socio-aesthetic ideals after undergoing debilitating and deforming medical procedures by either hiding the results or seeking plastic surgery. Any additional surgery on the area could potentially further damage their self-image and bodies. There are also racial disparities between women who choose to undergo breast reconstructive surgery in either form, with Black women choosing to do so in significantly lower numbers than white, Asian, or Latina women (PlasticSurgery.org).

The invention of the post-surgical bra, therefore, is unsurprising and at least partially reactionary to these conflicts. With it, patients attempt to reconcile the medicalized and

fragmented female body, the commercial-aesthetic concept of the fragmented female body (as Wieczorkowska writes in her analysis), and above all, the reunification of the fragmented body parts into a whole. Women exist as both fragmented and whole-bodied in current society, as aesthetic expectations tend to fragment their bodies into parts in need of "improvement" (i.e. de-aging or emulating an idealized view of the body part). With post-surgical bras, they re-assimilate their breasts, condemned as diseased by medical professionals, into general society and its consequent expectations.

Post-Surgical Bras and the Question of Medicalization

Because of the tight and sometimes-overlapping relationship post-surgical bras of all types have with medical treatments (wound dressing) and with fashion items (aesthetic dressing), one should consider what its relationship could be with the process of Western medicalization. This term was made famous by sociologist Peter Conrad (though he did not invent it), medicalization according to him means "a process by which nonmedical problems become defined and treated as medical problems, usually in terms of illness and disorders" (DasGupta 120). While medicalization has a widespread application to all manner of fields, with breast cancer, it remains close to dis/ability theory: breast cancer is considered to be a disability, and like other disabled people, breast cancer patients are forced to hide their bodily experiences from the general public.

As dis/ability theorist Rosemarie Garland-Thompson wrote in her 2002 essay on visual rhetoric of disability in popular photography, the mastectomy scar was a forbidden image of disabled women for virtually the entirety of the 20th century. It continued to be taboo as women's breasts became widely eroticized in popular photography, from fashion, to celebrity, to pornography. Garland-Thompson focuses in her essay on the campaign of the Breast Cancer Fund titled "Obsessed with Breasts" in the year 2000, in which women bearing mastectomy scars starred in parodies of a Calvin Klein ad, a *Cosmopolitan* cover, and a Victoria's Secret catalog (70). She discusses how this particular campaign marries up eroticized breasts with the medicalized breast, causing to "advance a potent feminist challenge not only to sexism in medical research and the treatment for breast cancer but also to the oppressive representational practices that make erotic spectacles of women's breasts an everyday thing while erasing the fact of the amputation that one women in eight will have" (72).

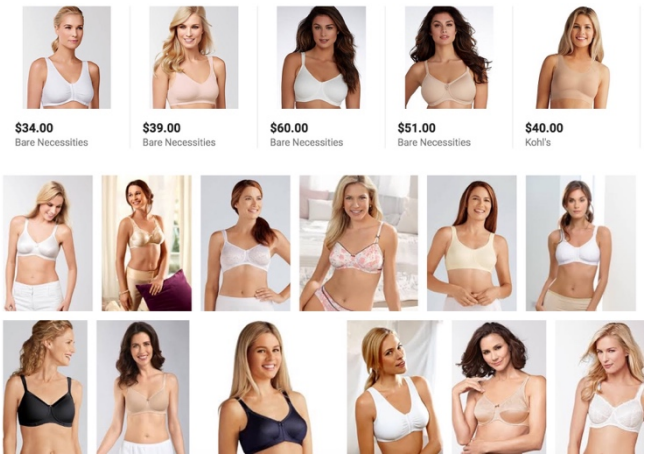

Figure 7. examples of models for post-surgical bras from Google Shopping.

In addition to Garland-Thompson's commentary, it should be mentioned that in the entire campaign, the women photographed are white, thin, and conventionally attractive. This is intentional, of course, as the women who were commonly featured on all three origins of the examples were white. However, it allows an unexpected window into the kinds of visuals that are considered to be acceptable even among breast cancer patients. As white women continue to be featured not only in promotion of the disease, they also feature in most of the modeling pictures for post-surgical bras and bandages (fig. 7).

In 2001, Garland-Thompson wrote in a treatise on feminist dis/ability studies how medicalization intersects with aesthetics and breast cancer (12-14). She first links the Foucauldian concept of "discipline" to cosmetic procedures of all kinds. When Foucault wrote about "discipline" in relation to women, she argues, he theorized a translation of extreme social pressure to answer standardized social criteria with invasive medical procedures. Women both elect to change their bodies (cosmetic and reconstructive surgery) and have their bodies changed without having elected to do so (forced sterilization and the Halstead radical mastectomy) in order to fulfil these criteria. In challenging those norms or constructs, feminist theory intersects with dis/ability theory, as they both promote the notion of an unstandardized, non-normalized female body.

The meeting of medicalization with breast cancer and aesthetic procedures has to do with standardization. Female breast cancer patients use reconstructive surgery to seek to "correct" a body in order to make it acceptable according to public norms (Ehlers). This makes the area of the mastectomy or BCS a place where mental and physical recovery is medicalized into procedure. After all, breast cancer patients are not legally forced into reconstructive procedures[iv], or even "pocket bras:" like Audre Lorde, many choose to keep the breast loss visible and unchanged. However, social norms dictate that women should have two whole, symmetrical breasts. This means that by choosing to undergo additional procedures to have two whole breasts, an aesthetic regulation becomes a medical issue. In other words, reconstructive surgery is there to "fix" what has been rendered "ugly" by previous surgery. Medicalization is simply another symptom in what Foucault defined as social "discipline," in which men dictate, dissect, and decorate women's bodies according to the rules they originally set.

How does the medicalization discourse relate to post-surgical bras? For Garland-

Thompson, they fall under the same category as reconstructive and other aesthetic procedures, because they too are part of the attempt to "correct" disabled women's bodies. The prosthesis is central to dis/ability theory for many reasons, and for feminist dis/ability theory, breast prostheses are a focal point. Not only do they not aid in motor function, Samantha Crompvoets found, they in fact hinder daily movement. Women who use "pocket bras" need to purchase different bras and prostheses for different activities, depending on the intensity of their movement and level of undress. Women who swim, for example, need a different prosthesis than women who do yoga. Women who wear low-cut tops need a prosthesis that might fit a strapless bra. This may seem out of the realm of medicalized products, but it's not: returning to an active lifestyle is considered imperative for physical recovery from breast cancer, and retaining a sense of self is imperative for psychological recovery. Women who use "pocket bras" essentially adopt them as part of their holistic identity in order to move on from the trauma of surgery and other treatments. This, arguably, means that post-surgical bras are medicalized items as a whole, because they are an under-discussed aspect of breast cancer treatment for the women who wear them.

Concluding Remarks

Reconciling the two different worlds in which post-surgical bras exist is only doable if the aesthetic criteria women have to answer to daily is taken seriously. These criteria are so pervasive in the lives of breast cancer patients, either "pocket bras" or reconstructive surgery become an aesthetic imperative. "Pocket bras" continue to do steady sales, and reconstructive surgery has risen in popularity. While the American Society of Plastic Surgeons has released a statistics report, which points toward a decline of 3% in reconstructive surgery in 2017, it nevertheless rose a dramatic 35% since the year 2000. Considering this in light of the Audre

Lorde's writing, for instance, it becomes clear that a certain type of breast cancer patient construct has taken ahold of women. While reconstructive surgery doubtlessly took leaps and bounds in technique and results since Lorde's time, it also enshrined itself as part of a plastic surgery reality. Breast augmentation, in this reality, is still the most popular aesthetic procedure in the US. With more than 300,000 breast augmentation procedures performed in 2017 alone, the visibility of augmented breasts in society makes reconstructive surgery a generally accepted decision to make, and it is covered by health insurances and Medicare.

This artificially enhanced materiality of women's bodies also connects to the notion of "pocket bras" as an aesthetic norm. Because post-surgical bras relate to the social construct of women both as fashionable items and medicalized items, they are part of breast cancer patients' process of embodiment: they contribute to the feeling of wearing a bra, a normalized process in many women's lives; they might aid in helping some of the patients' own reclamation of their libido by feeling sexually attractive, especially when the bra design is aimed at that; and they function as part of what is known as "recovery wear," a subset of fashion aimed at how breast cancer patients present themselves either during or after treatment. In this way, post-surgical bras are a technology aimed at enhancing embodiment. This embodiment, as iterated previously, can be seen in positive and negative ways simultaneously.

At its core, feminist theory is certainly antagonistic towards the notion of internalized heteropatriarchal aesthetic ideals in any person, especially if the person is suffering from an illness. And yet, it seems several feminist theorists have adopted a pragmatic approach to artificially enhanced embodiment, especially posthuman feminists following the footsteps of Donna Haraway's famed "Cyborg Manifesto." Many women don't consider the replacement of an amputated breast with a prosthesis or an implant to be dictated on them. The psychological

process of deciding whether to reconstruct or not is incredibly complex. I would even argue that fully challenging these aesthetic ideals would be a lost battle. However, medical innovation to potentially reduce damage to breast tissue might note a change in the wind.

CHAPTER 4: EZBRA – GROUNDBREAKING INNOVATION OR SYMPTOMATIC SOLUTION?

Introduction

This chapter of *Breast Dressing* examines the company EZbra, the product it is now starting to sell, and the people behind it. Through the story behind the company and its product, this chapter will also examine the following themes: how products made for and by women with breast cancer challenge not only the male gaze-fueled current market for breast cancer patients, but also the ways in which medicine is still methodized and distributed by men. EZbra's headquarters are based in Israel, but it is in the process of opening an office in New York City as it starts to penetrate the American market for wound dressing. EZbra has also embarked on a marketing campaign aimed at American breast cancer patients either at prognosis stage or in treatment. Founded in 2014, it is still a new company in funding stage, though the product itself is already being sold online and presented in medical conferences.

Figure 8. EZbra Phase 1.

As mentioned in the introduction chapter, I became acquainted with the women behind the company in 2016, and kept in regular contact with them ever since. Once my research got approved, I was able to officially interview them and EZBra's chief medical consultant, Dr. Eyal Gur. They kindly answered all of my questions and elaborated on ideas and experiences they have had with breast cancer in treatment, as well as a medical market. This chapter, therefore, attempts to analyze how EZbra as a product navigates the tough, outdated market of post-surgical bras and bandages, the effect it will have on breast cancer patients, and the changes it

could bring to the medical world at large.

EZbra – The Company

The history of EZbra as a product and company starts with the breast cancer diagnosis of CEO and patent originator Efrat Roman. During her tough years of treatment and recovery, she came up with the initial concept for the design. After doing a patent search and not finding anything, Roman registered a partial patent for the product in 2011. However, she could not finish it without the process of submitting a full design, something she had no training in. This is when Yael Gibor came into the picture.

CTO Yael Gibor heard of Roman in 2012 when she was doing research for her final project at the Holon Institute of Technology (HIT). As her project had to do with breast cancer patients dealing with breast asymmetry (the result of combative procedures), one of the patients she interviewed conveyed to her Roman's plans. Even so, Gibor only contacted Roman when a colleague from her program sent her a link to a talk Roman gave on her life and work. The connection between Roman and Gibor was immediate: both were already separately in the process of developing some kind of product to alleviate unforeseen needs for breast cancer patients. Together, they advanced EZbra from a half-planned patent to a full product that is now transitioning into mass production on an international scale (fig. 8).

EZbra – The Product

Designing and preparing EZbra for manufacturing was mainly the work of Yael Gibor. The design had different prototype stages (conceptual, initial models, raw material-sourced models), and it took several years to reach what is now called "phase 1" of the company (fig. 9&10). When I asked her about the process, her answer was illuminating:

"The idea of a breast dressing – Efrat came up with it already. The way we decided to turn it into

a product was something that took 6 months, from the initial idea I had in my mind for the whole project. But to bring it to life, to add the raw materials to it, to source them, to finalize those features took between a year to two years. And then, to bring it to production and the FDA [approval] took another two years."

Though Gibor had already worked on bra design with a local factory in Israel for her final HIT project, she had to learn firsthand how to develop an entirely new bandage design into manufacturing. This included sourcing medical-grade raw material, finding the correct technique to manufacture the design, and then find a factory with the correct machines to do so.

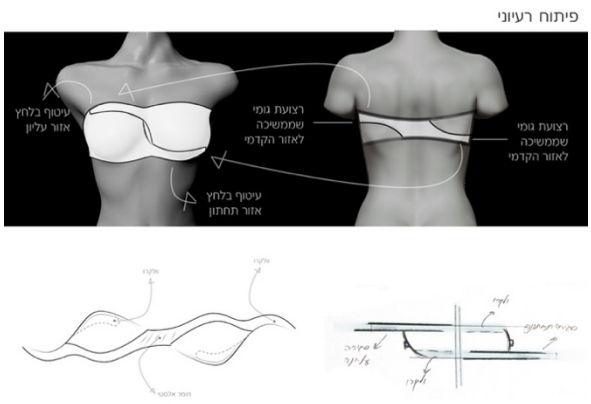

Figure 9. EZbra development illustrations courtesy of Yael Gibor.

Gibor also described the difficulties in finding companies willing to work with EZbra on a small scale with the understanding that eventually the product would go into mass production:

"We needed to find companies that understand our dreams, are visionaries and can look ahead and see the potential of the product, and know that today they sell us low quantities of product but in the future, we will grow and use them … to find a contractor that can manufacture EZbra. It's some kind of a square, 10x10 dressing, and it's not a hygiene product that can be flexible with the sizes and everything (like adult diapers for example). We needed to have it manufactured under medical supervision. It was very tricky to find a factory that can really take this product and achieve what we needed."

When I spoke to Efrat Roman on the inception of EZbra as a product, she articulated her disbelief on the lack of similar products in the market:

"I thought that because [I was treated] in Israel … there are no good solutions. I was sure that in the modern, more advanced world there would be some kind of a disposable bra which is [also] a dressing. It was clear to me that I couldn't be the only one who thought about that."

When a patent search yielded no results, Roman did her own preliminary design. However, it was Gibor who came up with the final prototype of Phase 1 EZbra: a surgical-grade bandage with no adhesives that wraps around the chest, easily fastens at the front, is capable of holding drains as needed, and is customizable to each breast separately.

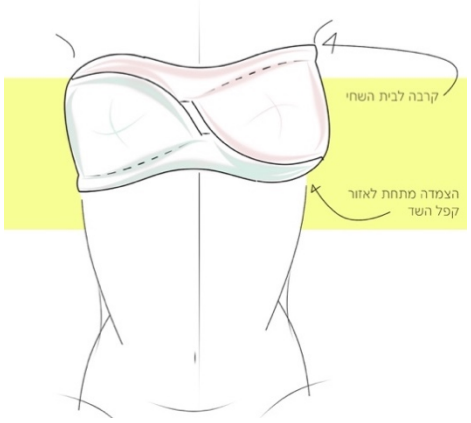

Figure 10. EZbra conceptual design courtesy of Yael Gibor.

Roman believes the product is applicable to all breast-related procedures: "eventually, EZbra will have to become the standard of care wherever there's a breast procedure, and that means cosmetic, plastic, breast cancer-related, radiation, biopsies, everywhere." This means that the market for EZbra is far wider than just breast cancer: women having their breasts augmented, and even transgender folk wishing to either reduce or enhance their breast area could use it after surgery. I've been given to understand that Phase 2 of EZbra consists of more availability of patterns and extended sizes. The company is also likely to expand its marketing campaigns.

EZbra in the Current Market for Breast Cancer

In the previous chapters of this thesis, I have discussed the current market for both wound care and post-treatment care for breast cancer patients. Breast dressings are a constant in the lives of breast cancer patients from prognosis to remission, as every procedure requires dressing afterward. Additionally, these dressings are often either ill-fitted for the procedure, or are made from materials that cause further damage to the patient's skin. This is something both Efrat Roman and Yael Gibor had in mind while designing and manufacturing EZbra. Roman in particular was adamant on not using any surgical glue-like materials in the product, as she experienced an allergic reaction to the adhesive in bandages placed on her:

> "after [the surgeon and nurses] realized that my skin was [reacting] really badly to the adhesive, they took out the other [tape] as well. By the way, the adhesives left a lot of scars on my skin. This is something that I kept on hearing from other patients as well: that the surgeons would make their best effort that the scar [from the incision] was going to be beautiful because this is where their prestige is. But then, the wound care leaves horrible scars on the sensitive skin of the breast."

Herein lies a lot of the irony when it comes to wound dressing products in the American market: while surgeons take utmost care not to leave extensive scarring in the incision area, the dressings themselves are harmful to the patients and undo the surgeons' work.

Roman mentioned in the interview that she was eventually bandaged with gauze and ACE bandages, which is apparently a common wound dressing strategy for breast cancer patients in the US. However, bandaging the chest area with ACE bandages is a dangerous practice that has long been advised against. This is especially true in the transgender community, where ACE bandages are considered an inexpensive form of chest binding. In a study conducted by researchers at Johns Hopkins and Boston University in 2016, the usage of elastic bandages such as ACE bandages for the purpose of breast compression was commonly associated with negative health outcomes, "a finding consistent with existing community recommendations against their use" (73). There are many connections to be had between transgender men and non-binary folk who regularly utilize binding methods, and breast cancer patients who seek similar types of compression. Using ACE bandages for compression is a practice that should be questioned in wound dressing for breast cancer patients. The lack of obvious overlap between the two communities in medical and social research is suspect as well.

In the post-surgical bra and bandage primer chapter, the two leading wound dressing methods in the breast cancer world are either thick bandages or mastectomy bras. There are problems with both of these methods: due to their thickness, the bandages are very visible under clothing. Mastectomy bras, on the other hand, have straps and therefore require either tough arm

maneuvers, or help from another person while putting them on and taking them off, as arm mobility is hindered after combative breast cancer procedures. Furthermore, there is problem for both that has to with hygiene: some surgeons do not want the patient to change dressing until the incision is fully healed. Others are fine with changing dressings according to need. In both cases, the patient either has to stay with a gradually dirtier dressing (as there is seepage and bleeding from the incisions), or wash a gradually dirtier and more stained bra. EZbra takes the bandage route in here, as it is one-time use, but it is still dependent on the post-surgical course of treatment dictated by the surgeon. It is still a better solution than a sports bra, on the other hand, as it does not have straps and compression can be controlled for each breast separately.

Another product in the post-surgical market EZbra might be up against is the popular Brobe: Allison Schickel's post-surgical robe with pockets for drains and a detachable bra. The design is made with the patient's comfort, treatment, and aesthetic trauma in mind, and it is estimated to make $1.2M annually. The Brobe is also a new company, and like EZbra, it is still in the process of raising money for the purpose of expansion. The advantage of the Brobe bra on EZbra is also potentially its disadvantage: the bra and the robe go together. On one hand, according to the Brobe testimonials, it is extremely comfortable to wear and lends itself to treatment and recovery after a combative procedure. On the other hand, the lack of versatility in the clothes makes EZbra an option for women who might opt for street clothes. As journalist Lisa Miller writes in her op-ed for *New York Magazine* on her breast cancer struggles:

> " If maternitywear is an indignity to style-conscious women, then mastectomywear is far, far worse, and within that realm the Brobe reigns supreme … If you have a mastectomy, you need some way to support and manage those tubes, and the manufacturers of the Brobe and its imitators have capitalized on this. Anticipating my mastectomy, I might not have known what to wear, but I knew it wasn't a freaking Brobe."

EZbra could also be considered through the lens of "pocket bras," as they traditionally have been used to ease the trauma of a mastectomy or BCS. As Maren Klawiter describes in her book, *Biopolitics of Breast Cancer : Changing Cultures of Disease and Activism*, part of the intense process of biomedicalization breast cancer has undergone in the early 20th century is gifting the postop patient a "breast form." Hospitalized women in recovery were given half-bandage, half-bra dressings with place for the "breast form," often made of lamb's wool. The goal was to ease the ordeal that was the Halstead radical mastectomy both on a short-term and long-term scale. On a short-term scale, this is what EZbra essentially is for: a dressing that is comfortable and eases both psychological and physical burdens of breast cancer treatment, albeit in an opposite way: instead of hiding away the missing breast, EZbra endeavors to accommodate it. In doing so, it crosses a barrier in the history of breast cancer and aesthetics in 20th century America.

EZbra and Aesthetics

It is difficult to discuss the ways in which EZbra could be a groundbreaking product without considering the history of breast cancer aesthetics in the United States. As previously mentioned, Maren Klawiter narrates exactly this phenomenon in her book, especially when it comes to the creation of the "closet:" the socially oppressive regime under which mainly white, middle-to-upper-class potential breast cancer patients were highly encouraged to seek medical help, but then discouraged to talk about its devastating implications. Women who did not belong to this particular socio-economic group fared even worse (and still do). American breast cancer culture functioned for the majority of the 20th century under this regime, in the vast shadow of the Halstead radical mastectomy.

Klawiter often codeswitches between hetero-feminist and queer-feminist theories when she examines the social aspects of the "closet," starting with using the term "closet," now

synonymous with hiding one's sexual orientation or gender identity. Upon discharge from the hospital, breast cancer patients were told to "go back to normal life" and "act as if nothing has happened" (75), hiding their extensive physical and emotional scarring from everyone in their lives. Thus, they were fully "closeted" about their distress and attempted to "pass" as "normal women." The act of "passing" (another loaned term from queer and intersectional theory) is highly performative and taps into social stereotypes in the extreme: the need to look healthy, the longing to appear whole, and the yearning to feel desired all come with a strict set of rules which are nearly impossible for women to achieve at best.

EZbra debuts as a product in the US during a time of great aesthetic and medical turmoil: as women opt for reconstructive surgery in decreasing numbers, the number of cosmetic mammoplasty procedures is skyrocketing. At the same time, the market for "pocket bras" remains viable, yet distinctly veiled in its revenue: not a single company creating breast inserts or mastectomy bras has ever gone public. Several, in fact, have been purchased by other companies[v]. Therefore, it is difficult to accord for the state of the current market for any non-medical-grade post-surgical bra. As a product, EZbra competes with post-surgical bras as they're used for bandaging, but the issue of aesthetics in a heteronormative society remains a real problem.

What does it mean for breast cancer patients to feel attractive or desired? During my interview with Dr. Eyal Gur (EZbra's chief medical consultant), the issue of physical comfort versus psychological comfort in post-surgical bras came up:

> "One of the women whom I've suggested to try EZbra had some issues putting it on the right way in the beginning, but she said, 'it is not sexy. I wanted to look sexy after surgery.' A black bra was maybe not comfortable, but at least it was sexier than [a] white cloth or bandage."

Gur talked about his patients almost exclusively in terms of heterosexual lifestyles, which wasn't a surprise: non-heterosexual women are considered a minority among breast cancer patients[vi], and they seem to opt for reconstructive surgery in smaller numbers than heterosexual patients do. In the case of Gur's work, the patients were mostly Israeli. However, the issue of heterofemininity within American breast cancer patients is dominant as well, and could be an issue EZbra would be facing.

Another facet of aesthetics in post-surgical bras and bandages has to do with dignity. Preserving a patient's dignity while they receive treatment is a paramount concept in the medical community, specifically in the nursing community. When it comes to diseases with social stigma like breast cancer, the importance of dignity increases exponentially. Because of the way breasts are fetishized in Western society, breast cancer patients' loss of bodily autonomy is even more traumatizing to them. This problem is exacerbated with the gender disparity between patients and surgeons, as most surgeons are male. Dignity is even a selling point for a few post-surgical brands and prototypes during and after surgery: it relates to the patient's needs for comfort and discretion as they face initial recovery.

The concept of dignity also depends on the patient's ability to regain bodily autonomy as quickly and wholly as possible. Since patients receive their first bandaging during surgery, their ability to change bandages as needed is a significant step in maintaining dignity. Moreover, it conveys the way the patient wishes to display herself in public, whether it's the way she looked prior to hospitalization or not. These kinds of deliberations are directly linked to performativity of health and illness, as well as deliberations of comfort and sexual desire. EZbra as a product could potentially quicken the regaining of dignity in patients, depending on how easily the patient can tie it and whether her oncological nurse is trained in using it. The longer it takes, the

less bodily autonomy it provides.

EZbra and Critical Theory

Michel Foucault's theories on social control, particularly governmentality, have been consistently used to elucidate the different forces at play within the American breast cancer industry and community. Sonia Báez-Hernández certainly delves into Foucault's theories as she propagates the dire situation of underrepresented communities within breast cancer discourse. However, when she elaborates on the corporeality of breast cancer treatment, Báez-Hernández turns to Erving Goffman's concept of "identity kits." Within this process of embodiment, women have to reconcile the physical attributes they possess being permanently or temporarily altered by surgeons and combative therapy. There's an "interplay between memories and self-monitoring mediated normality" that Báez-Hernández incorporates into those changing "identity kits," which "has multiple purposes: 1) to control the body's appearance and illness; 2) to avoid an uncomfortable situation; 3) to avoid pain and outbreaks of emotions; 4) to maintain one's composure; and 5) to avoid causing oneself and others embarrassment" (146).

In a previous chapter, I have argued that society fragments women's bodies into pieces in need of "improvement." This fragmentation is still more damaging to the bodies of breast cancer patients. Báez-Hernández similarly considers the bodily trauma breast cancer patients undergo to "have the power of fragmentation" (147). In this particular context, Goffman's "identity kits" are disfigured by treatment to the point of "a disembodiment of reality." How, then, can one product provide any kind of relief? That would depend on the cumulative effect of a well-chosen form of aid. In terms of materiality, Erving Goffman's "identity kits" are both tactile things and routines. They are, in his words, the way in which a person "expects to exert some control over the guise in which he appears before others" (20) for the preservation of "physical integrity" (21). If EZbra

manages to assist breast cancer patients in developing a routine of healing from disfigurement, then it will have done its work as part of an "identity kit."

EZbra's place in Feminist and Dis/Ability Theories

The role of agency in feminism is paramount and present in every theory strain. With agency, women are able to self-liberate and self-actualize themselves not only out of difficult situations, but also to ameliorate their lives at large. The examples are ample: suffrage, the ability to own property and finances, access to education in all levels, marrying at will or not marrying at all, etc. In terms of embodiment and feminism, agency is crucial: reproductive rights, control over one's appearance, eliminating false patriarchal narratives such as hysteria, etc. In breast cancer culture, agency has come to mean several things: first and foremost, the complete change breast cancer advocacy has brought not only to doctor-patient relations, but also to patients' ability to choose their course of treatment. Additionally, it also has to do with the deterioration of the "closet" in many ways: it is now more acceptable than ever for patients to show signs of their course of therapy, whether it's eschewing wigs or forgoing reconstruction and "pocket bras."

Lately, breast cancer patients' agency has taken a different route. Instead of merely advocating for better treatment and social recognition, patients are now openly creating products to help others in their courses of treatment. While EZbra is the chosen example for the purpose of this thesis, there are several others: AnaOno, which makes lingerie for all stages of treatment or remission; LympheDIVA, which offers compression sleeves to protect from lymphedema in a great variety of colors and patterns; Pink Perfect, which provides custom-made realistic prosthetic nipples; and even The Shower Shirt, which allows patients to protect their incision area without forgoing basic hygiene routines.

The amalgamation of agency, choice, and dignity is part of the feminist dis/ability

discourse in the world of breast cancer. It is a discourse that stands in the massive shadow of Audre Lorde's *Cancer Journals*, and the all-encompassing effects it has had on breast cancer awareness. However, as Lorde's writing is now 40 years removed from the reality of breast cancer, it is hard for current streams of feminism to account with its message of non-compliance with heterosexist norms. Several feminist scholars have since expressed difficulties living up to Lorde's beliefs. In an essay on her choice to have autoplastic reconstruction, posthuman feminist scholar Diane Price Herndl discusses this very problem:

> "My choice to have reconstruction was to leap with both feet into the posthuman, the partial, and the contradictory. My new 'breast' reflects that: it is me to the extent that it is my own tissue, but it is alien because it has been moved, reshaped, and changed by technology. I am now partial, because a part of me is missing ... and because my choice reveals a partiality to normal appearance. […] Is my new 'breast' any less a visible sign of my interaction with technology than a mastectomy scar would be? To a certain extent, yes. It is certainly less visible to other people when I am wearing clothes. This invisibility of what happened to me is at the heart of Lorde's resistance to prosthesis" (151).

The myriad of feminist interpretations of the diagnosed body touches on EZbra as well. As a versatile product, EZbra can be used for different processes of rehabilitation for patients, whether they choose to reconstruct or not. It most certainly falls under the definition of Feminist Technology (or "fem tech"), as Deborah G. Johnson describes in "Sorting Out the Question of Feminist Technology." As an adjustable and customizable surgical-grade bandage specifically for different-sized breasts, EZbra is "good for women." As a technology that treats the breast similarly to other organs to be correctly bandaged and compressed, it "constitutes gender-equitable social relations." As a product that answers a specific need for female breast cancer patients in their market, it "favors women." Finally, as a design that could potentially supersede current faulty mastectomy bra designs, EZbra "constitutes social relations that are more equitable than those that were constituted by a prior technology or than those that prevail in the wider

society" (43). It is, in short, an equitable product under the rather inflexible terms of feminist theory. But is it truly helpful to women's psyche, when all is said and done?

EZbra and the Financial Predicaments in Current American Healthcare

As discussed earlier, the success of EZbra as a product seems to be predicated upon its cumulative use during recovery. Nevertheless, it operates in a system that is already biased against women as patients, consumers, and innovators. That it took more than a century of combative treatments for the conception of a specialized bandage alone is mystifying. Moreover, that EZbra has had trouble raising funds to start mass production when the market is clearly ready for it is even more enraging. That women are still expected to reuse mastectomy bras or ACE bandages on their incision site in a field controlled by men is galling. And that is not even the worst of their problems.

How can breast cancer patients stay dauntless and continue to advocate for themselves, when their diagnosis is a harbinger for all kinds of complications? Setting aside the diagnosis itself and fast decision-making it forces women to do, breast cancer in the US is effectively a socio-economic tripwire. It forces women to contend with three immense issues which are potentially unsolvable: affording treatment, retaining a job, and maintaining respect from healthcare professionals. All three have deep associations with sexist and racist attitudes towards women in the US. Despite some improvement in the past four decades, they remain some of the leading causes behind early mortality and financial ruin for many breast cancer patients.

Within this medical microcosmos, the cost of care for breast cancer patients is an enormous financial challenge. In 2018, a team of researchers from the University of Michigan found that nearly half of all breast cancer patients experience financial toxicity caused by their cancer diagnosis. The team additionally found that 45% of Black breast cancer patients, 36% of

all Latina patients, and 22% of all White and Asian patients experience food insecurity as a result of their diagnosis. Patients who are already below the poverty line are also more likely to abstain from doctor's visits due to lack of health insurance, and are less likely to fully recover as a result. A breast cancer diagnosis also compounds the amount of debt patients with postsecondary degrees incur. With student debt in the US at an unprecedented high coupled with soaring health insurance premiums, patients are far likelier to sink further into poverty with a diagnosis.

In light of the economic hardship many breast cancer patients endure, it may be challenging to view them as avid consumers, but as previous chapters have shown, consumers they are. This is due in part to the long treatment and recovery period patients experience, and in part due to the traumatic physical and psychological changes that occur in the process. The American breast cancer patient market is considered a niche market in comparison to common retailers such as Walmart, Amazon, and Apple, but it's nevertheless significant. With more than 3.5 million women diagnosed with breast cancer in the United States as of 2019, the market for breast dressings is large enough to merit growth in and of itself.

In a conversation I've had with Dana Donofree, founder of AnaOno, a lingerie company for breast cancer patients, we discussed the market changes in the past decade. She opined that the internet altered the market by allowing patients access to more merchandise in extended sizes. At the same time, mastectomy stores, the point of access for many patients seeking health insurance coverage for their bras and breast forms, are slowly disappearing. Patients can acquire prescriptions for mastectomy bras, but prescriptions are not optional forms of payment in online purchases. This is the likeliest case with EZbra as well: even though it's intended for immediate recovery and should be part of a hospital kit, it is highly likely that patients will have to purchase by themselves from EZbra's website and other online retailers.

When it comes to companies such as EZbra, finding willing investors is a massive hurdle. In research published as recently as 2019, Guzman and Kaperczyk have found that start-ups led by women in the US are much less likely to receive investments from venture capital funds. They also have additional difficulties in pitching their start-up ideas, as most managers in private equity and venture capital firms are men. As can be expected, start-ups for products aimed specifically for women by women with problems that are women-specific fall under the trickiest rubric for finding investors. Roman described it as one of the toughest obstacles still in EZbra's way:

> "…When it came to raising funds, most of the financial assets are held by men. Trying to raise funds from men for a problem that only women are experiencing…it's not something that has to do with pregnancy or the things that are easier to relate to as men. We came in and spoke about the terrible experience that women experience while facing breast cancer, which was scary to them. Speaking about women's breasts not in a sexy manner, but in a painful and humiliating manner, made most of the men we spoke to very, very uncomfortable."

Donofree also mentioned the lack of male investors' ability to both sympathize and reconcile business strategy with products that are not as universal either in the fashion or medical markets:

> "It's hard to structure and sell your business in theory or an idea in a room full of people who don't understand the needs of the consumers you're aiming for. The harsh reality is that if they haven't been affected by breast cancer, if their wives or daughters or sisters-in-law or best friends weren't ill, it's not their fault, they don't understand…Business is also business. The harsh realities of making money, scaling, being an investable business…you have to find an investor who understands the revenues and type of business."

Breast cancer-oriented bras are presently penetrating mass market production, but not as independent companies. For instance, fashion label Stella McCartney and activewear label Athleta both launched mastectomy bra designs in 2019 (during Breast Cancer Awareness Month, of course), but those comprise a small part of a much larger collection. Smaller companies like

AnaOno and EZbra are competing with players even more powerful than the relative giants of the mastectomy bra market, Amoena and Anita Care, as Donofree explained:

> "The space is so much crowded now. Large companies are creating mastectomy bras because breast cancer is a hot topic, not because their bras actually work for people with breast cancer. It's just another category for them. At least they're taking notice. At least they see us."

The market, subsequently, has grown but somehow stayed very similar to the way it has been for the past several decades. Breast cancer patients have a real need for bras that aid their recovery at different stages, but even with the explosion of internet shopping, many products remain outdated or badly designed. In fact, some online shopping hubs are so outdated, many still feature models with natural breasts modeling mastectomy bras. This is a remarkably bad marketing strategy, as the cleavages and breast shapes of breast cancer patients are completely altered after surgery. Donofree described it as the "biggest insult" she faced when shopping for bras for her bilateral mastectomy, and in fact pushed her to create her own company in the first place.

Likewise, in her essay, Diane Price Herndl discusses how hidden the breast cancer continuum can still be, despite its wide exposure. Herndl was explaining her painful autoplastic reconstruction in a beauty shop, when she noticed one of the saleswomen listening attentively. When she concluded her explanation, the saleswoman blatantly remarked that she would've loved to have it done herself, despite not having a cancer diagnosis. This comment might be shocking to some, but sadly, the breast cancer community is full of similar stories. The conflation of warped aesthetics with body fragmentation society forces on all women only increases with time.

As plastic surgery has now become common, even reconstructive surgery is no longer considered an extraordinary choice to make even on healthy bodies: "I thought that my voice

would outweigh the visible," writes Herndl, "voicing of breast cancer, though, doesn't always work" (152). The visibility of breast cancer patients, therefore, remains extremely contentious in mainstream American culture. The process of normalization too is a double-edged sword: the less dire the choices breast cancer forces women to make, the more acceptable it is to talk about them. However, as medical procedures become normalized, less attention is given to women who are genuinely in need of medical intervention. Seen in this way, the recent arrival of EZbra doesn't seem so unusual. Why would women need a bandage specifically for their breasts if reconstructive surgery is supposed to improve them?

Conclusion

After looking at EZbra from several different perspectives throughout this chapter, one could ask several questions about how it works and what it represents: is it truly a good product for breast cancer patients? What could we interpolate from EZbra as a company about the current state of healthcare in the United States? And finally, is EZbra truly a groundbreaking product, or is it merely a symptomatic solution for a deficiency in a broken system? That it merits these questions alone is testimony to the importance of this product in general. There are simply no other products like it as of 2019, and the products it competes with do not offer the versatility it has. And yet, its very existence was not and still is not a sure bet.

Is EZbra a good product for breast cancer patients? From the perspectives of feminist, critical, and dis/ability theories, it appears to be an excellent product. It allows for a range of treatments without having to account for any specific pre-surgical requirements, as is the case with other mastectomy bras. It can also be adjusted to the

post-surgical body according to need, whether it's wound compression, drain location, or holding a breast shape. It does not leave the patient with the feeling of being constantly dirty. EZbra, however, does not look like a bra, and therefore may not answer for all the needs of a bra. To some patients, this is a genuine psychological drawback. Perhaps it can be viewed as a "step in the right direction" kind of product, which opens the door to other variations and iterations that would be able to cross this aesthetic obstacle.

How can EZbra shed a light on the state of American healthcare, especially since the beginning of the 21st century? On one hand, it shows how damaged the healthcare system is, as it highlights what has been lacking in care and innovation for the quality of care and quality of life of breast cancer patients. On the other hand, it signifies a society changed by two major forces: the breast cancer advocacy movement, and the rise of the internet as a major player in representation and consumerism. As women increasingly use the internet as amplification for their needs and desires, their power is reflected more strongly in medical awareness, product innovation, and even medical research. EZbra is the product result of two women seeing a need in a world that did not conceive of it beforehand, yet many say is an absolute necessity.

Is EZbra a genuinely innovative product that can revolutionize care, or merely symptomatic of a market behind the times? The answer is likely both: EZbra is the type of innovation that comes from a person's experience, rather than a calculated gamble by corporate strategists and designers. It could potentially revolutionize the market for breast dressings in general by being both a comfortable bandage and a correct post-surgical solution. This kind of innovation, however, is symptomatic of its market and medical world at large. Breast cancer patients' needs were simply not being met on a vast scale, and whatever products were used to inadequately assist them came from private companies with no real interest beyond a certain

price.

The arrival of EZbra in the breast cancer market seems to be extremely good for the market, but its survival is still in question. With mixed patient reactions to the way it looks, it might have a problem truly penetrating the market. It also might have a problem with affordability due to its price for a one-time use product. Likewise, it might have a problem with gatekeeping: many nurses and surgeons are not aware of it yet, and therefore would be reluctant to use a product that would require them to learn a different bandaging technique. Consequently, when it comes to breast cancer, EZbra is essentially a stopgap product for a treatment process that entails trauma inflicted on women's bodies. As Dana Donofree remarks:

> "I dream of the day when I go out of business because we're no longer amputating breast tissue off of women's bodies in order to save their lives. That is what we need. We need procedures and processes in which we no longer need to remove a body part in order to fight a disease."

The reality of EZbra is the reality of broadly prescribed organ amputation in 21st century American healthcare. It is also the reality of negligible health coverage and deficient government support on a massive scale. It is the reality in which women have need for agency and courage in face of a system that treats them while shaming them. It is the reality of a posthuman society in which dis/ability is visible and invisible simultaneously, while plastic surgery and cyborg fantasies spread and intensify in popular culture. In this reality somehow the private sphere exists, where women try to live day after day in their own bodies as they fracture and fragment. Offering them the proverbial bandage is equally ironic and pertinent, a tiny step in the direction of more equitable medical care. Only time will tell how effective EZbra can truly be to the patients who

need it the most, but it shows the lengths medical innovation can still go beyond pharmaceutical and surgical research.

CHAPTER 5: CONCLUSION

Breast Dressing marks the culmination of a long scholarly journey I have taken for the past three-and-a-half years. I did preliminary research on Gender Medicine, a theoretical lens that has become more popularized while I was writing about it. Once I understood the uneven playing field on which medicine aimed at women already stands, I focused my research on post-surgical bras within the theoretical fields I have been studying. However, with every new article I discovered, there seemed have always been an accompanying personal story or history to what I was reading. Returning to the personal experience of women helped me simplify every academic examination of the writings of Foucault, Butler, Goffman, and Conrad. Once I dived into the different theoretical strains that have either directly discussed or related to the post-surgical bra world, I returned to a more concise view of it. For this reason, I would like to share three personal anecdotes related to my thesis that happened just this past year.

In May 2019, I participated in a departmental competition at the Graduate Center for best presentation of a thesis in miniature. I was two semesters into my final research at that point, and I had enough material to do the proverbial elevator pitch with confidence. When I mentioned the financial cost of owning "pocket bras," there was an audible gasp in the room. It stays with me to this day. I think about all the graduate students in the audience: how they probably struggled to afford healthcare; how they had problems juggling school, work, and family; and how a breast cancer diagnosis could potentially terminate their fledging academic careers. And yet, they sat there, audibly gasping at what is considered to be a purely cosmetic purchase.

The correlation between society, gender identity, aesthetics, and financial burden is well-trodden ground. It's why *Reach for Recovery* was started in the first place. It's the reason breast forms were invented in the first place. The mindboggling notion that any woman would end up

not having two breasts and present her altered physique in public is still inconceivable to many. Breast forms are still sold everywhere, and many women still opt to use them instead of reconstructing. At the same time, the myriad variations of breast reconstruction still continue to evolve, from DIEP and TRAM flaps, to implants, to expanders, to nipple conserving, and so forth. Nonetheless, the financial cost to either reconstructing or not still plagues patients by the hundreds of thousands.

The second anecdote has to do with a conversation I had just a few weeks ago with a woman I befriended during my time at the Graduate Center. We reconnected during a social event, and caught up with each other's work. When I informed her of the topic of my thesis, she immediately replied, then you could help me! She was going to undergo a prophylactic bilateral mastectomy the following year. We discussed her treatment plan and the kinds of bras she was going to use. I privately wondered how many women needed this kind of conversation with someone in their lives.

While the breast cancer community has certainly flourished online, lack of awareness and options for breast cancer patients remains an immediate problem for many women in the US. Recent research shows that one in four women is not aware she has the option to reconstruct, and that federal law requires health insurances or Medicare to cover the procedure (Breast Reconstruction Awareness Campaign). Additionally, many impoverished women have no access to affordable treatment, as Sonia Báez-Hernández discussed in her 2009 article. She herself only received adequate treatment once she managed to apply for a grant that allowed her access to a special hospital. Though Báez-Hernández was treated for breast cancer prior to the passing of the Affordable Care Act in 2010, constant attempts to strip the law remain an enormous obstacle for patients to afford treatment without going bankrupt. The 2015 Breast Cancer Patient Education

Act was aimed specifically at this, and yet, in 2019, it remains a problem.

The third anecdote I wish to share relates to my first conversation with Dana Donofree. In October 2019, I was invited by Efrat Roman to attend a special EZbra event in Manhattan. The event was held in collaboration with the New York Breasties, a Facebook/Instagram group of women under 40 who were diagnosed with breast cancer. I found myself standing in a room filled with young career women who braved the stormy weather that day to attend the event. In the conversations I have had with several of them, I heard tales of stalled careers, debilitating procedures, and loss of self-esteem. While the atmosphere in the room was light, there was an undercurrent of anger, which only sharpened after Roman's presentation of EZbra. How come this product only came by now? Why could these women not have had it when they were in treatment? Donofree in particular was incensed over the omnipresence of men in the way breast cancer patients were expected to look, whether it was plastic surgery or "pocket bra" companies.

The stereotypical breast cancer patient has been an older woman for many decades, and as the average age of patients across all demographics remains post-menopausal, this is understandable. However, statistics show a marked increase in the number of younger women diagnosed. This is partly due to the widespread use of mammograms and education on self-exams for likely symptoms. It is also due to environmental factors, such as the spread of carcinogen use in many industries. The number of breast cancer patients grows at a rate of 0.3% per year (ACS), and with it, medical innovation continues. At some point in the next few decades, it is likely that a blood test will be able to supplant most forms of early diagnosis. It is also likely that invasive surgical intervention will become a less common method of combating breast cancer.

Breast Dressing marks a point in the timeline of the breast cancer continuum. It looks

into the past for explication and glimpses into the future for hope. It is an attempt to merge scholarship with real experiences of patients and medical professionals. It encapsulates a reality in which both academia and the post-surgical bra market struggle to keep up with the lives of women in a fractured healthcare system. At times, it was incredibly difficult to write, both emotionally and academically. It also leaves me with questions about the precarious prospects of my case study: is EZbra going to survive into the 2020s and beyond? I cannot say for sure. I sincerely hope it does, as it truly is a remarkable product, and its presence in the market will likely inspire other products of its kind. As it is, the breast dressing market continues to meander its way towards eventual obsolescence. It is nevertheless important to investigate, because lives continue to depend on its offerings. It is also my hope that a large-scale research on women's quality of life using breast dressings is carried out. I believe it will prove vital for patient advocacy. Finally, I hope *Breast Dressing* was able to educate and interest, as it truly is a fascinating and important world to discover.

[i] Jolie wrote an op-ed in the *New York Times*, explaining her choice to undergo preventative double mastectomy with immediate reconstruction and an oophorectomy in the future, to spare herself the breast cancer diagnosis that caused her mother's death at 56.

[ii] This change in technique should be noted, because many of the scholarly articles focused on reconstructive surgery experiences specifically target the TRAM Flap as a problematic type of procedure.

[iii] One does not need to look any further than the high mortality rate of Black breast cancer patients, or even new Black mothers, to see the inherent racism in the medical system still prevailing in the US.

[iv] In fact, breast cancer patients had to lobby extensively for the Women's Health and Breast Cancer Rights Act of 1998 to include a clause that forces health insurance providers to cover breast reconstructive procedures with other breast cancer expenses.

[v] Amoena Group, for instance, was purchased by Colisée in 2019.

[vi] Though medical research from the past 15 years suggests that bisexual and lesbian women are much likelier to incur breast cancer due to several socially based criteria.

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