

**CHAPTER 3**  
**PHYSICAL AND PSYCHOSOCIAL**  
**IMPACT OF BREAST CANCER AND**  
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## CHAPTER 3

# PHYSICAL AND PSYCHOSOCIAL IMPACT OF BREAST CANCER AND ITS TREATMENT

Being diagnosed with breast cancer can be overwhelming for a woman. During treatment or recovery, women often experience emotional turmoil as a result of physical, emotional and social changes. This chapter collects and

analyses information about the psychosocial and physical impact of breast cancer on 11,707 patients in our cohort. The average time at which patients completed this survey was 2.2 years after initial cancer diagnosis.

### Key findings

#### Physical impact of treatments

- ▶ Around two-thirds (68.3%) of our patients who had surgery experienced no or minimal levels of discomfort, while 9.5% of them experienced severe discomfort. Wound pain (16.1%) was the most common form of discomfort experienced after surgery and a small proportion (2.7%) of our patients reported lymphoedema as a form of discomfort after surgery.
- ▶ Half (52.0%) of our patients who had chemotherapy experienced a severe level of physical discomfort during or after chemotherapy. Vomiting (18.8%) and loss of appetite (15.5%) were the common forms of discomfort experienced by our patients in the cohort.
- ▶ 66.5% of the patients who had radiotherapy experienced no or minimal levels of discomfort. Dry skin (10.9%) and skin burns (10.5%) were the most common forms of discomfort experienced after radiotherapy in our patient cohort.
- ▶ 79.8% of our patients who had undergone endocrine therapy experienced no or minimal levels of discomfort. Hot flushes (12.8%) were the most common form of discomfort experienced after endocrine therapy in the patient cohort.
- ▶ 81.9% of our patients who had undergone targeted therapy experienced no or minimal levels of discomfort. Fatigue (4.4%) was the most common form of discomfort experienced after targeted therapy in our patient cohort.
- ▶ Majority (96.0%) of the patients who received complementary and alternative therapies felt no or minimal levels of discomfort.

#### Psychosocial impacts and adjustments after diagnosis and treatment

- ▶ At the time of diagnosis, 44.5% of our patients accepted their diagnosis with a calm or positive attitude. In contrast, 22.7% of the cohort could not accept their diagnosis.
- ▶ After completing all treatment(s), 28.0% of our patients expressed that cancer had changed their value system.
- ▶ 53.5% of our breast cancer survivors reported having a positive change in their outlook on life and 43.2% reported having a positive in their self-image.
- ▶ 81.9% of our patients reported having changes in their lifestyle after diagnosis with breast cancer. A change in diet (74.1%) was the most common lifestyle change, followed by increased exercise (61.5%). 12.1% of our patients resigned from their jobs after breast cancer diagnosis.
- ▶ 55.1% of patients managed their negative emotions by direct verbal expression, while 33.3% diverted their attention away from negative emotions.
- ▶ 26.5% of patients in our cohort did not worry about recurrence, however, around half (55.4%) of them always or sometimes worried about recurrence.

### 3.1 Physical discomfort after treatment

#### 3.1.1 Physical discomfort after surgery

Around two-thirds (68.3%) of our patients who had surgery experienced no or minimal levels of discomfort, while 9.5% of them experienced severe discomfort (Figure 3.1). The proportion of our patients who reported feeling severe physical discomfort was highest among the patients who had undergone mastectomy and reconstruction (Figure 3.2). In our patient cohort, wound pain (16.1%) was the most common form of discomfort experienced after surgery. A small proportion (2.7%) of our patients reported lymphoedema as a form of discomfort after surgery (Table 3.1).

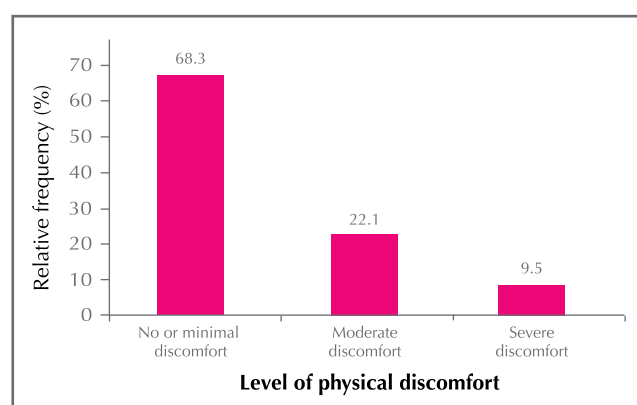


Figure 3.1 Level of physical discomfort after surgical operations (N=11,781)

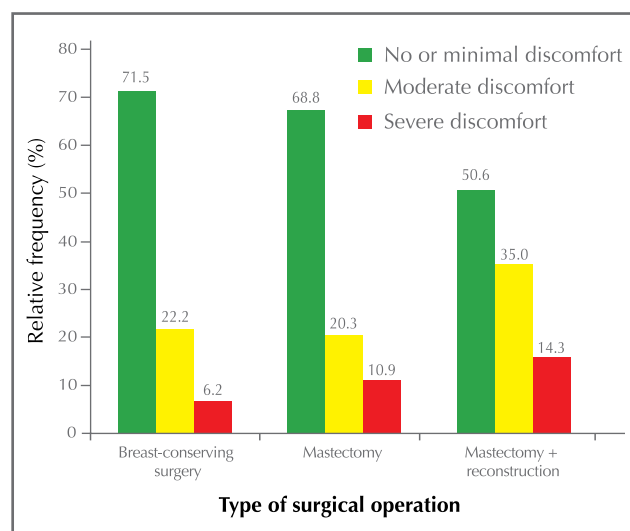


Figure 3.2 Level of physical discomfort by type of surgery (N=11,731)

Table 3.1 The five most common forms of discomfort after surgery (N=11,781)

	Number	(%)
Wound pain	1,895	(16.1)
Wound problems (infection / inflammation / tightness / poor wound healing)	783	(6.6)
Difficulty in arm movement	719	(6.1)
Numbness	403	(3.4)
Lymphoedema	313	(2.7)



### 3.1.2 Physical discomfort after chemotherapy

Around half (52.0%) of our patients who had chemotherapy experienced a severe level of physical discomfort due to side effects (Figure 3.3). Vomiting (18.8%) and loss of appetite (15.5%) were the common forms of discomfort experienced during or after chemotherapy in our patient cohort (Table 3.2).

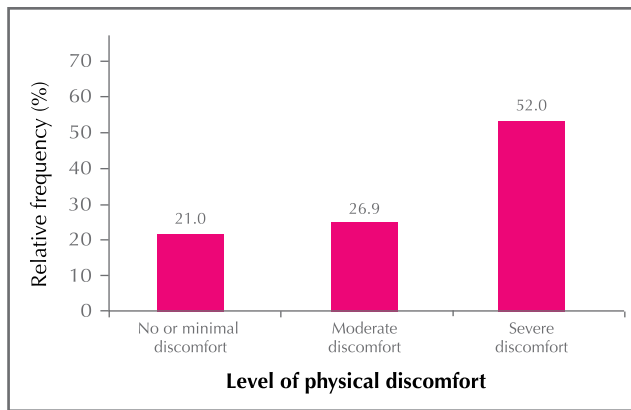


Figure 3.3 Level of physical discomfort after chemotherapy (N=7,089)

Table 3.2 The five most common forms of discomfort after chemotherapy (N=7,089)

	Number	(%)
Vomiting	1,330	(18.8)
Loss of appetite	1,100	(15.5)
Hair loss	868	(12.2)
Weakness	657	(9.3)
Nausea	472	(6.7)

### 3.1.3 Physical discomfort after radiotherapy

Two-thirds (66.5%) of our patients who had radiotherapy experienced no or minimal levels of discomfort (Figure 3.4). A higher proportion of patients who had undergone chest wall irradiation reported having severe discomfort, than their counterparts who underwent breast irradiation, regardless of whether or not they had undertaken regional lymph node irradiation (Figure 3.5). Having dry skin (10.9%) and skin burns (10.5%) were the most common forms of discomfort experienced after radiotherapy in our patient cohort (Table 3.3).

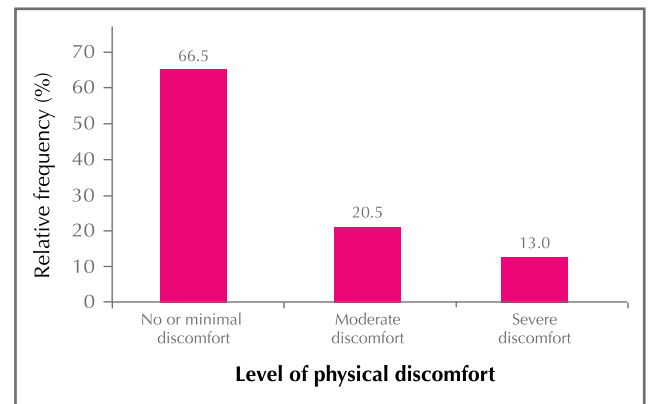
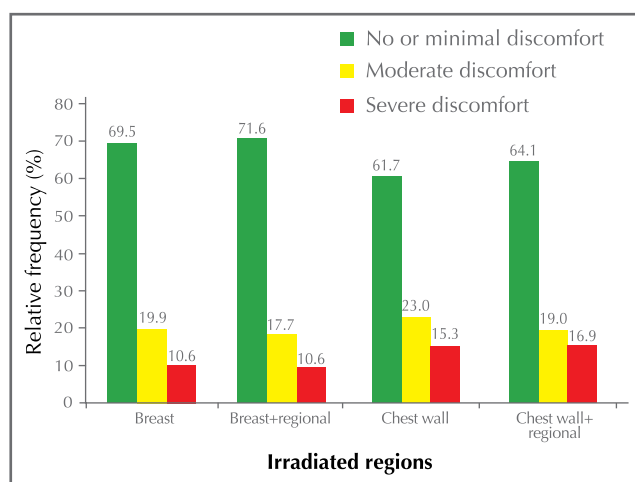


Figure 3.4 Level of physical discomfort after radiotherapy (N=7,059)



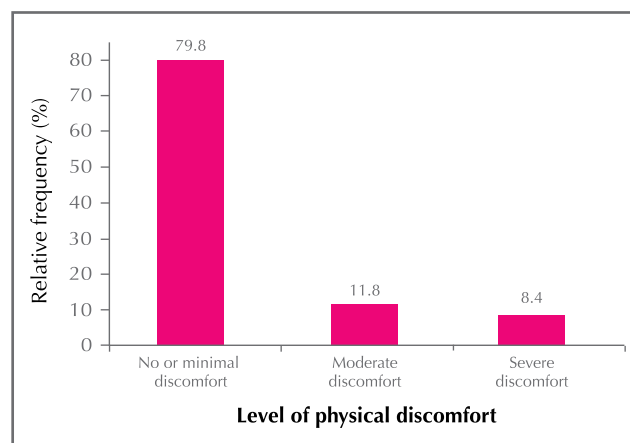
**Figure 3.5** Level of physical discomfort after radiotherapy by irradiated regions (N=4,948)

**Table 3.3** The five most common forms of discomfort after radiotherapy (N=7,059)

	Number	(%)
Dry skin	772	(10.9)
Skin burns	740	(10.5)
Pain	384	(5.4)
Fatigue	161	(2.3)
Skin ulceration	137	(1.9)

### 3.1.4 Physical discomfort after endocrine therapy

More than three quarters (79.8%) of our patients who had undergone endocrine therapy experienced no or minimal levels of discomfort, whereas only 8.4% of patients said they experienced severe discomfort (Figure 3.6). Hot flushes (12.8%) was the most common form of discomfort experienced after endocrine therapy in the patient cohort (Table 3.4).



**Figure 3.6** Level of physical discomfort after endocrine therapy (N=7,565)

**Table 3.4** The five most common forms of discomfort after endocrine therapy (N=7,565)

	Number	(%)
Hot flushes	970	(12.8)
Bone pain	427	(5.6)
Tiredness	327	(4.3)
Menstrual Disorder	304	(4.0)
Unstable emotion	113	(1.5)

### 3.1.5 Physical discomfort after targeted therapy

More than three quarters (81.9%) of our patients who had undergone targeted therapy experienced no or minimal levels of discomfort, while only 6.8% experienced severe discomfort (Figure 3.7). Fatigue (4.4%) was the most common form of discomfort experienced after targeted therapy in our patient cohort (Table 3.5).

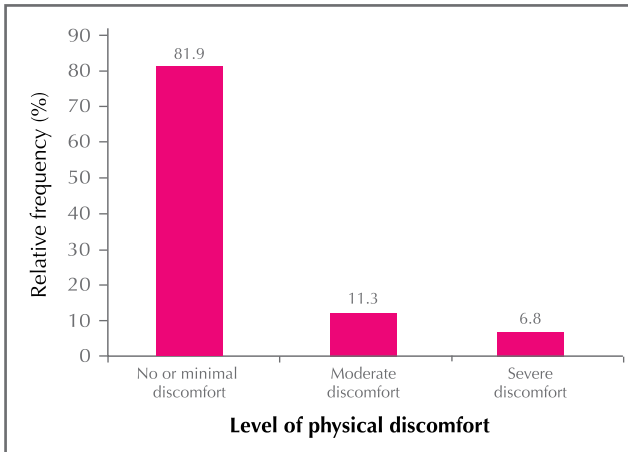


Figure 3.7 Level of physical discomfort after targeted therapy (N=973)

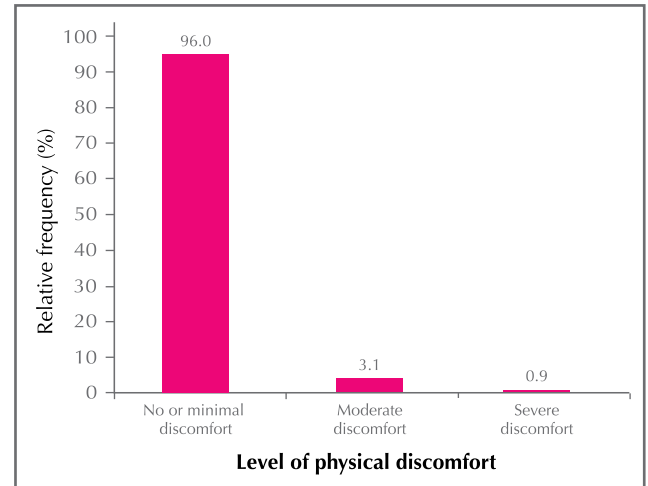


Figure 3.8 Level of physical discomfort after complementary and alternative therapies (N=3,240)

Table 3.5 The five most common forms of discomfort after targeted therapy (N=973)

Discomfort	Number	(%)
Fatigue	43	(4.4)
Pain	23	(2.4)
Other organs affected	16	(1.6)
Dizziness	14	(1.4)
Numbness	11	(1.1)

### 3.1.6 Physical discomfort after complementary and alternative therapies

The majority (96.0%) of our patients who received complementary and alternative therapies felt no or minimal levels of discomfort (Figure 3.8).

## 3.2 Psychosocial impacts and adjustments after diagnosis and treatment

### 3.2.1 Psychosocial impacts after diagnosis and treatment

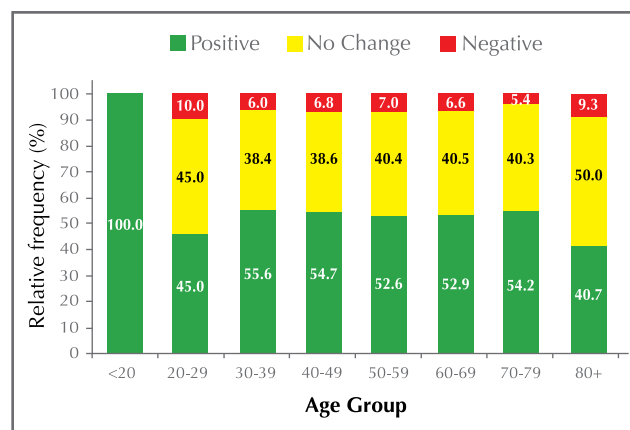
At the time of diagnosis, 44.5% of our patients accepted their diagnosis with a calm or positive attitude. In contrast, 22.7% of the cohort could not accept their diagnosis. After treatment, 28.0% of our patients expressed that cancer had changed their value system. Half (53.5%) of our breast cancer survivors reported having a positive change in their outlook on life and 43.2% reported having a positive change in their self-image (Table 3.6).

**Table 3.6 Psychosocial impacts of breast cancer on our patients**

	Number	(%)
<b>Feelings at time of breast cancer diagnosis (N=11,411)</b>		
Acceptance and positive attitude to fight	2,389	(20.9)
Calm acceptance	2,697	(23.6)
Acceptance with depression	3,520	(30.8)
Lack of acceptance (“It cannot be true.”)	2,595	(22.7)
Acceptance with anger (“Something must be wrong.”)	210	(1.8)
<b>Feelings after breast cancer treatments (N=8,720)</b>		
Life was not fair	2,850	(32.7)
Cancer was an alarm that caught patient by surprise	2,813	(32.3)
Cancer changed patient’s value system	2,443	(28.0)
Cancer took away something from patient	614	(7.0)
<b>Change in outlook on life (N=11,458)</b>		
Positive	6,135	(53.5)
Negative	775	(6.8)
No change	4,548	(39.7)
<b>Change in self-image (N=11,443)</b>		
Positive	4,948	(43.2)
Negative	1,012	(8.8)
No change	5,483	(47.9)

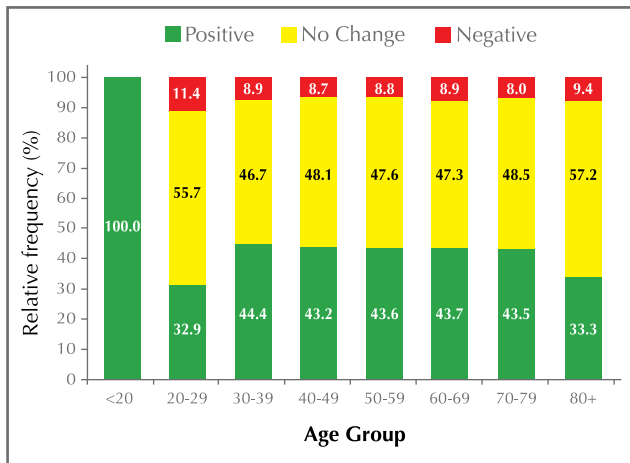
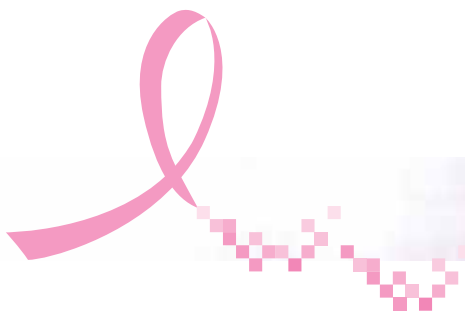
In our patient cohort, positive change in the outlook on life was reported by around half (52.6-55.6%) of our patients aged 30-79. Higher proportions of patients in the age groups 20-29 and 80+ reported having negative change in their outlook on life (Figure 3.9).

In our patient cohort, positive change in self-image was reported by around 40% (43.2-44.4%) of the patients aged 30-79, in contrast a higher proportion of patients in the age group 20-29 reported having negative change in self-image (Figure 3.10).



**Figure 3.9 Change in outlook on life by age group (N=11,264)**

\*Only 1 patient in our cohort belonged to the <20 age group.



**Figure 3.10** Change in self-image by age group (N=11,251)

\*Only 1 patient in our cohort belonged to the <20 age group.

### 3.2.2 Psychosocial adjustments and coping strategies

Out of 11,707 patients in our cohort, 9,592 (81.9%) reported having changes in their lifestyle after diagnosis with breast cancer. A change in diet (74.1%) was the most common lifestyle change, followed by increased exercise (61.5%). 12.1% of our patients resigned from their jobs (Table 3.7).

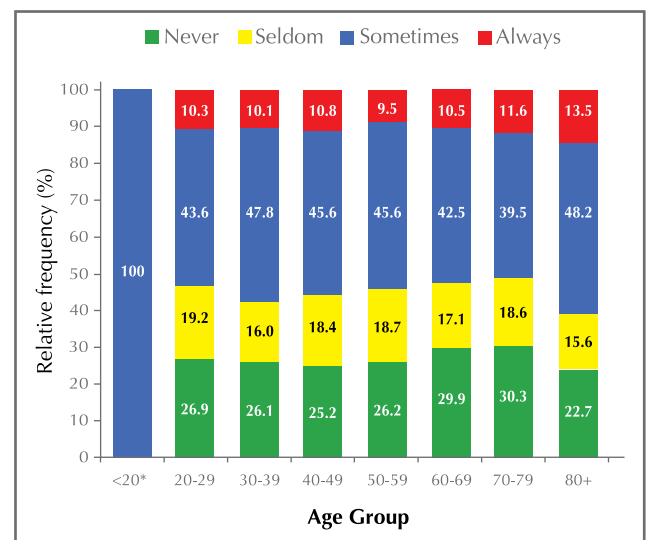
In our patient cohort, 55.1% of patients managed their negative emotions by direct verbal expression, while 33.3% diverted their attention away from negative emotions. However, 10.6% of our patients ignored their negative emotions, while 7.3% felt depressed (Table 3.7).

### 3.2.3 Levels of worry about recurrence

In our patient cohort, 26.5% did not worry about recurrence, however, around half (55.4%) of them always or sometimes worried about recurrence (Table 3.7). The level of worry about recurrence did not show any correlation with the patients' age, but higher proportions of patients in the age groups 60-69 and 70-79 never worried about recurrence (Figure 3.11).

**Table 3.7** Psychosocial adjustments and coping strategies for survivorship

	Number	(%)
<b>Types of lifestyle changes (N=9,592)</b>		
Changing diet	7,110	(74.1)
Doing more exercise	5,900	(61.5)
Taking health supplements	2,194	(22.9)
Reducing workload	1,820	(19.0)
Resigning from job	1,158	(12.1)
<b>Way of managing negative emotions (N=11,707)</b>		
Direct verbal expression	6,452	(55.1)
Divert attention from them	3,900	(33.3)
Ignoring them	1,239	(10.6)
Feeling depressed	850	(7.3)
Others	1,102	(9.4)
<b>Level of worry about recurrence (N=11,448)</b>		
Never	3,038	(26.5)
Seldom	2,061	(18.0)
Sometimes	5,167	(45.1)
Always	1,182	(10.3)



**Figure 3.11** Level of worry about recurrence by age group (N=11,260)

\*Only 1 patient in our cohort belonged to the <20 age group.