

CHAPTER 3
PHYSICAL AND PSYCHOSOCIAL
IMPACT OF BREAST CANCER AND
ITS TREATMENT

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Being diagnosed with breast cancer can be an overwhelming experience. 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 and its treatment on 12,711 patients in our cohort. The mean time at which patients did the survey was 2.1 years after initial cancer diagnosis.

Key findings

Physical impact of treatments

- ▶ Around two-thirds (69.5%) of our patients who had surgery experienced no or minimal levels of discomfort, while 9.2% of them experienced severe discomfort. Wound pain (16.4%) was the most common form of discomfort experienced after surgery and a small proportion (2.8%) of our patients reported lymphoedema as a form of discomfort after surgery.
- ▶ 66.8% of our patients who had radiotherapy experienced no or minimal levels of discomfort. Having dry skin (13.1%) and skin burns (10.6%) were the most common forms of discomfort experienced after radiotherapy in our patient cohort.
- ▶ Half (52.0%) of our patients who had chemotherapy experienced a severe level of physical discomfort during or after chemotherapy. Vomiting (18.1%) and loss of appetite (15.2%) were the common forms of discomfort experienced by our patients in the cohort.
- ▶ 80.2% of our patients who had undergone endocrine therapy experienced no or minimal levels of discomfort. Hot flushes (13.1%) was the most common form of discomfort experienced after endocrine therapy in the patient cohort.
- ▶ 82.1% of our patients who had undergone anti-HER2 targeted therapy experienced no or minimal levels of discomfort. Fatigue (5.1%) was the most common form of discomfort experienced after anti-HER2 targeted therapy in our patient cohort.
- ▶ Majority (97.7%) of our 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, 45.3% of our patients accepted their diagnosis with a calm or positive attitude. In contrast, 22.9% of the cohort could not accept their diagnosis.
- ▶ After completing all treatment(s), 29.6% of our patients expressed that cancer had changed their value system.
- ▶ 52.3% of our breast cancer survivors reported having a positive change in their outlook on life and 42.6% reported having a positive change in their self-image.
- ▶ 82.0% of our patients reported having changes in their lifestyle after diagnosis with breast cancer. A change in diet (74.3%) was the most common lifestyle change, followed by increased exercise (61.7%). 11.8% of our patients resigned from their jobs after breast cancer diagnosis.
- ▶ 54.9% of patients managed their negative emotions by direct verbal expression, while 32.9% diverted their attention away from negative emotions.
- ▶ 26.5% of patients in our cohort did not worry about recurrence, however, around half (54.8%) of them always or sometimes worried about recurrence.

3.1 Physical discomfort after treatment

3.1.1 Physical discomfort after surgery

Around two-thirds (69.5%) of patients who had surgery experienced no or minimal levels of physical discomfort, while 9.2% of them experienced severe discomfort (Figure 3.1). The proportion of patients who reported feeling severe physical discomfort was highest among the patients who had undergone mastectomy and reconstruction (Figure 3.2). 16.4% of our patients reported wound pain as the source of discomfort after surgery (Table 3.1).

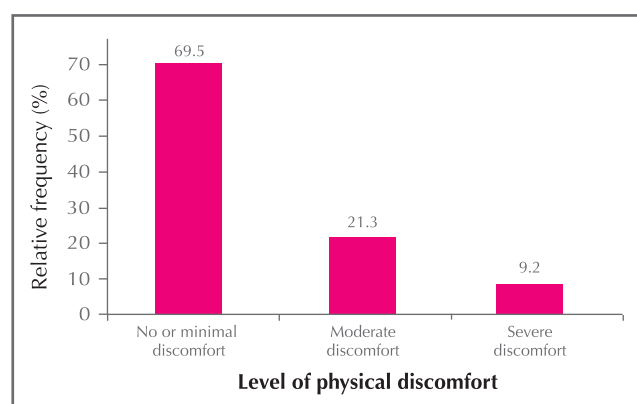


Figure 3.1 Level of physical discomfort after surgical operations (N=13,251)

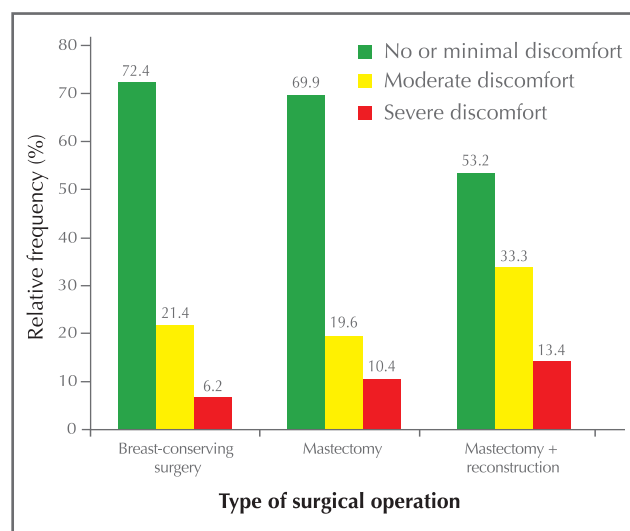


Figure 3.2 Level of physical discomfort by type of surgery (N=13,222)

Table 3.1 The five most common forms of discomfort after surgery (N=13,251)

	Number	(%)
Wound pain	2,176	(16.4)
Wound problems (infection / inflammation / tightness / poor wound healing)	868	(6.6)
Difficulty in arm movement	760	(5.7)
Numbness	451	(3.4)
Lymphoedema	377	(2.8)

3.1.2 Physical discomfort after radiotherapy

Two-thirds (66.8%) of our patients who had radiotherapy experienced no or minimal levels of discomfort (Figure 3.3). A higher proportion of patients who had undergone chest wall irradiation reported severe discomfort, than their counterparts who underwent breast irradiation, regardless of whether or not they had undertaken regional lymph nodes irradiation (Figure 3.4). 13.1% and 10.6% of the patients in our cohort, respectively, reported having dry skin and skin burns as the forms of discomfort experienced after radiotherapy (Table 3.2).

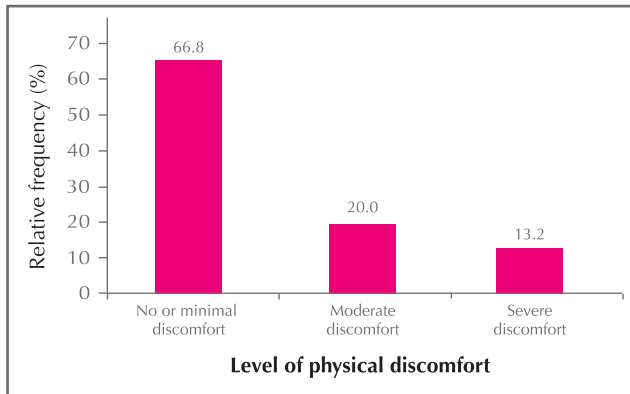


Figure 3.3 Level of physical discomfort after radiotherapy (N=7,933)

Table 3.2 The five most common forms of discomfort after radiotherapy (N=7,933)

	Number	(%)
Dry skin	1,042	(13.1)
Skin burns	844	(10.6)
Pain	458	(5.8)
Fatigue	244	(3.1)
Skin ulceration	211	(2.7)

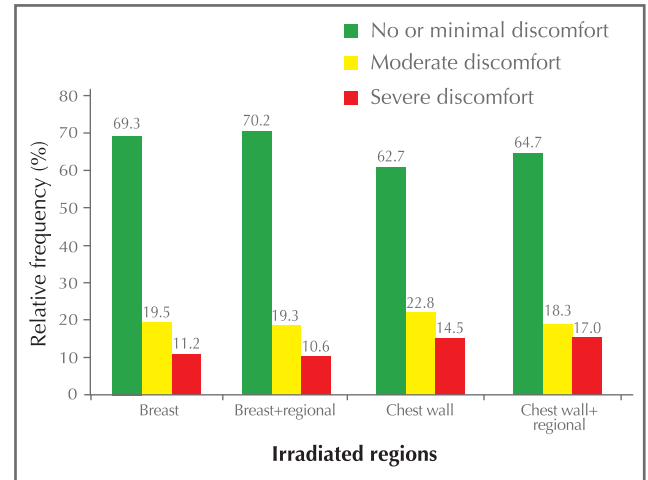


Figure 3.4 Level of physical discomfort after radiotherapy by irradiated regions (N=5,478)

3.1.3 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 3.5). Vomiting (18.1%) and loss of appetite (15.2%) were the most common forms of discomfort experienced during or after chemotherapy in our patient cohort (Table 3.3).

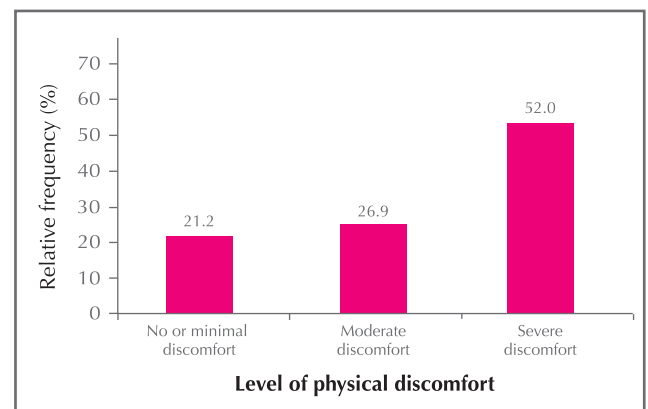


Figure 3.5 Level of physical discomfort after chemotherapy (N=7,853)

Table 3.3 The five most common forms of discomfort after chemotherapy (N=7,853)

	Number	(%)
Vomiting	1,419	(18.1)
Loss of appetite	1,194	(15.2)
Hair loss	905	(11.5)
Weakness	774	(9.9)
Nausea	483	(6.2)

3.1.4 Physical discomfort after endocrine therapy

More than three quarters (80.2%) of our patients who had undergone endocrine therapy experienced no or minimal levels of discomfort (Figure 3.6). Hot flushes (13.1%) was the most common form of discomfort experienced after endocrine therapy in the patient cohort (Table 3.4).

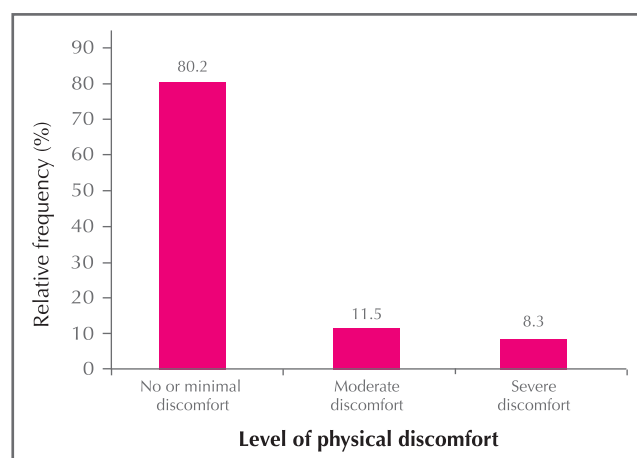


Figure 3.6 Level of physical discomfort after endocrine therapy (N=8,520)

Table 3.4 The five most common forms of discomfort after endocrine therapy (N=8,520)

	Number	(%)
Hot flushes	1,112	(13.1)
Bone pain	568	(6.7)
Tiredness	451	(5.3)
Menstrual Disorder	360	(4.2)
Emotionally unstable	200	(2.3)

3.1.5 Physical discomfort after anti-HER2 targeted therapy

Over 80% of our patients who had undergone anti-HER2 targeted therapy experienced no or minimal levels of discomfort (Figure 3.7). Fatigue (5.1%) was the most common form of discomfort experienced after anti-HER2 targeted therapy in our patient cohort (Table 3.5).

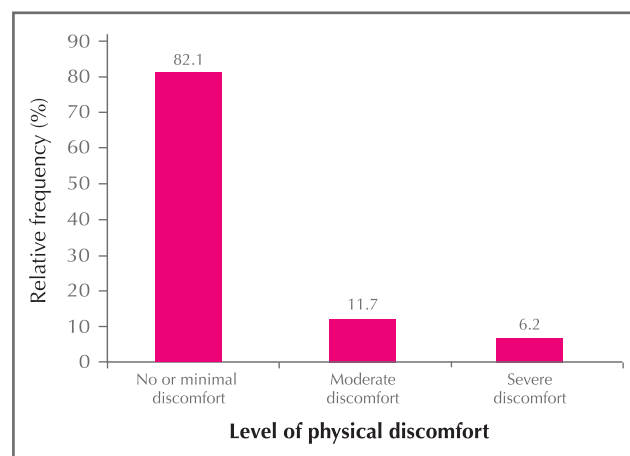


Figure 3.7 Level of physical discomfort after anti-HER2 targeted therapy (N=1,381)

Table 3.5 The five most common forms of discomfort after anti-HER2 targeted therapy (N=1,381)

Discomfort	Number	(%)
Fatigue	70	(5.1)
Other organs affected	34	(2.5)
Pain	32	(2.3)
Numbness	16	(1.2)
Dizziness	14	(1.0)

3.1.6 Physical discomfort after complementary and alternative therapies

The majority (97.7%) of our patients who received complementary and alternative therapies felt no or minimal levels of discomfort (Figure 3.8).

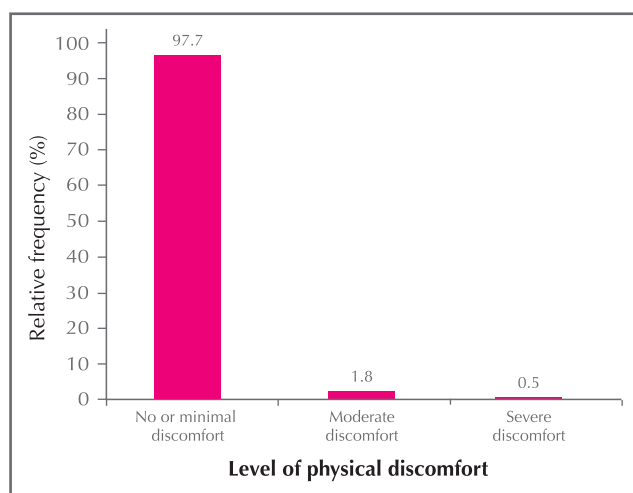


Figure 3.8 Level of physical discomfort after complementary and alternative therapies (N=5,686)

3.2 Psychosocial impacts and adjustments after diagnosis and treatment

3.2.1 Psychosocial impacts after diagnosis and treatment

At the time of diagnosis, 45.3% of our patients accepted their diagnosis with a calm or positive attitude. In contrast, 22.9% of the cohort could not accept their diagnosis (Table 3.6). After treatment, one-third (32.3%) of the patients expressed that cancer was an alarm that caught them by surprise. Half (52.3%) of our patients reported having a positive change in their outlook on life and 42.6% reported having a positive change in their self-image after cancer diagnosis and its treatment (Table 3.6).

Table 3.6 Psychosocial impacts of breast cancer on our patients

	Number	(%)
Feelings at time of breast cancer diagnosis (N=12,403)		
Acceptance and positive attitude to fight	2,572	(20.7)
Calm acceptance	3,052	(24.6)
Acceptance with depression	3,722	(30.0)
Lack of acceptance ("It cannot be true.")	2,838	(22.9)
Acceptance with anger ("Something must be wrong.")	219	(1.8)
Feelings after breast cancer treatments (N=9,142)		
Cancer was an alarm that caught patient by surprise	2,957	(32.3)
Life was not fair	2,860	(31.3)
Cancer changed patient's value system	2,703	(29.6)
Cancer took away something from patient	622	(6.8)
Change in outlook on life (N=12,422)		
Positive	6,501	(52.3)
Negative	880	(7.1)
No change	5,041	(40.6)
Change in self-image (N=12,420)		
Positive	5,289	(42.6)
Negative	1,133	(9.1)
No change	5,998	(48.3)

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

In our patient cohort, positive change in self-image was reported by around 40% of the patients aged 30-79, where higher proportion of patients in the age groups 20-29 and 80 and above reported having negative change in self-image (Figure 3.10).

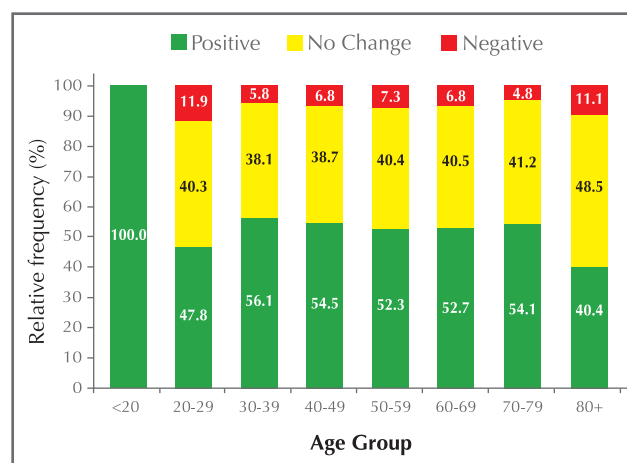


Figure 3.9 Change in outlook on life by age group (N=12,163)

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

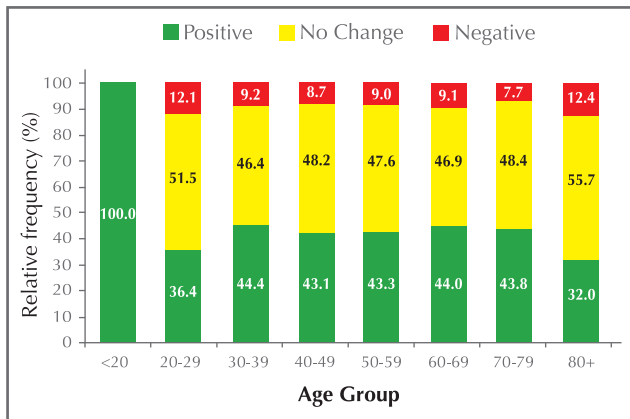
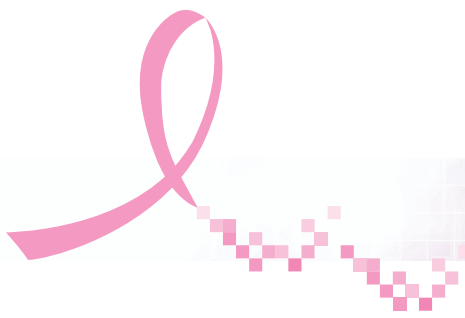


Figure 3.10 Change in self-image by age group (N=12,168)

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

3.2.2 Psychosocial adjustments and coping strategies

Out of 12,711 patients in our cohort, 10,423 (82.0%) reported having changes in their lifestyle after diagnosis with breast cancer. A change in diet (74.3%) was the most common lifestyle change, followed by increased exercise (61.7%). 11.8% of our patients resigned from their jobs (Table 3.7).

In our patient cohort, 54.9% of patients managed their negative emotions by direct verbal expression, while 32.9% diverted their attention away from negative emotions (Table 3.7).

3.2.3 Levels of worry about recurrence

In our patient cohort, a quarter (26.5%) of the patients did not worry about recurrence, however, around half (54.8%) 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 slightly higher proportions of patients in the age groups 20-29, 60-69 and 70-79 never worried about recurrence. On the contrary, higher proportions of patients in the age groups 40-49, 60-69, 70-79, and 80 and above always worried about recurrence (Figure 3.11).

Table 3.7 Psychosocial adjustments and coping strategies for survivorship

	Number	(%)
Types of lifestyle changes (N=10,423)		
Changing diet	7,748	(74.3)
Doing more exercise	6,427	(61.7)
Taking health supplements	2,313	(22.2)
Reducing workload	1,919	(18.4)
Resigning from job	1,225	(11.8)
Way of managing negative emotions (N=12,711)		
Direct verbal expression	6,975	(54.9)
Divert attention from them	4,178	(32.9)
Ignoring them	1,371	(10.8)
Feeling depressed	900	(7.1)
Others	1,270	(10.0)
Level of worry about recurrence (N=12,465)		
Never	3,309	(26.5)
Seldom	2,322	(18.6)
Sometimes	5,521	(44.3)
Always	1,313	(10.5)

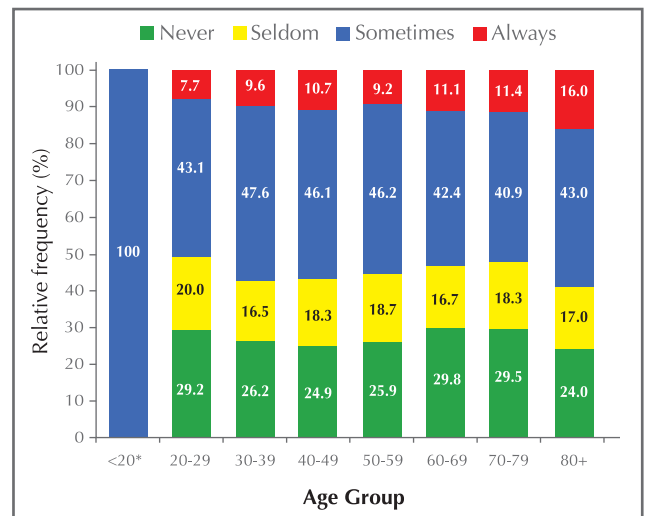


Figure 3.11 Level of worry about recurrence by age group (N=12,216)

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