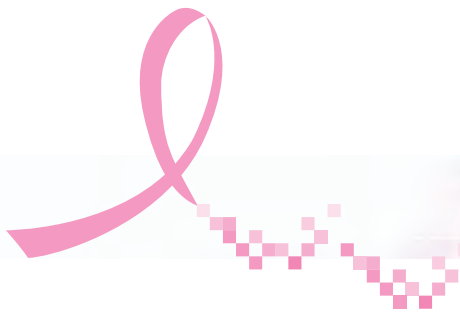


**CHAPTER 3**  
**PHYSICAL AND PSYCHOSOCIAL**  
**IMPACT OF BREAST CANCER AND**  
**ITS TREATMENT**

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## CHAPTER 3

# PHYSICAL AND PSYCHOSOCIAL IMPACT OF BREAST CANCER AND ITS TREATMENT

### I. Introduction

3.1 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, psychological and

social changes. This chapter analyses the physical and psychosocial impact of breast cancer and its treatment on 18,289 patients in the cohort.

#### HIGHLIGHTS

This chapter describes the physical discomfort after treatment and psychological impact of breast cancer on 18,289 patients who were diagnosed between 2006 and 2018.

##### Physical discomfort after treatment

- ▶ The majority of patients experienced no or minimal physical discomfort after undergoing surgery, radiotherapy, endocrine therapy and targeted therapy.
- ▶ About half of the patients who had chemotherapy experienced severe physical discomfort due to side effects.

##### Psychological impact of breast cancer

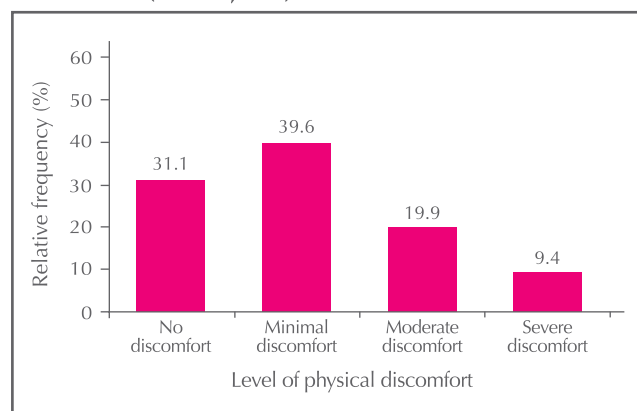
- ▶ At diagnosis, 47.7% of the patients accepted their diagnosis with a calm or positive attitude, while 23.1% could not accept their diagnosis.
- ▶ Positive changes in outlook on life and self-image were negatively associated with increasing age.
- ▶ In the cohort, 79.8% reported having changes in their lifestyle after diagnosis with breast cancer, mainly change in diet.
- ▶ The proportion of patients who never worried about recurrence increased with increasing age, while the proportion of patients who always worried about recurrence decreased with increasing age.

## II. Physical discomfort after treatment

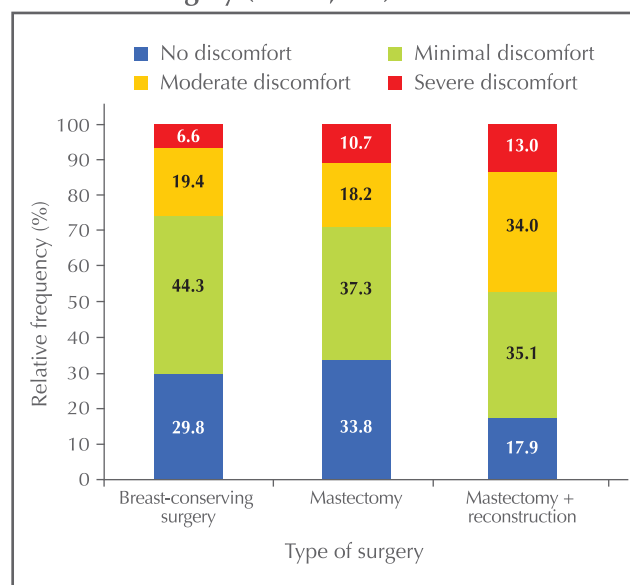
### A. Physical discomfort after surgery

3.2 Overall, 70.7% of the patients who had surgery experienced no or minimal physical discomfort, while 9.4% experienced severe discomfort (Figure 3.1). In terms of level of discomfort by type of surgery, the proportion of the patients who reported severe physical discomfort was highest (13.0%) among those patients who had undergone both mastectomy and reconstruction (Figure 3.2).

**Figure 3.1: Level of physical discomfort after surgery (N=18,229)**



**Figure 3.2: Level of physical discomfort by type of surgery (N=18,179)**

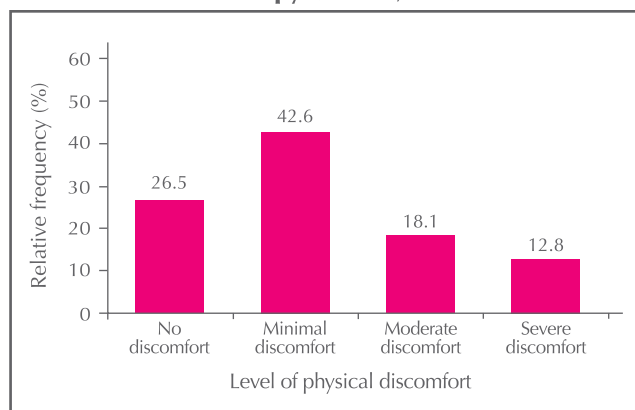


### B. Physical discomfort after radiotherapy

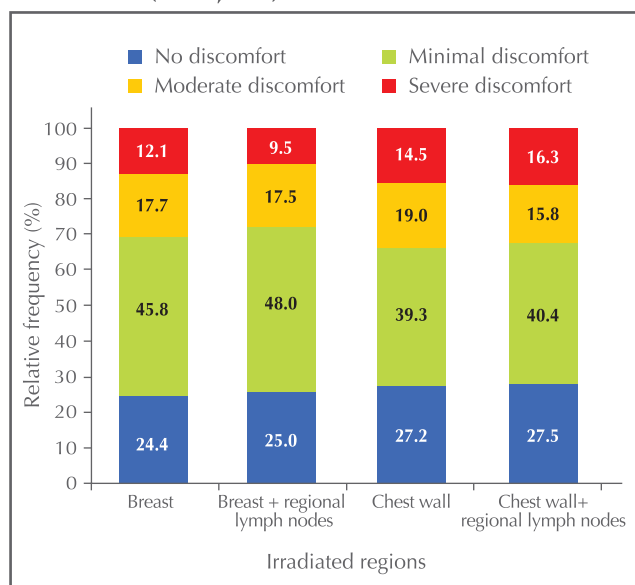
3.3 Among the patients who had radiotherapy, 69.1% experienced no or minimal discomfort (Figure 3.3). Higher proportions of patients who had undergone chest wall irradiation reported having severe discomfort than those who had undergone breast irradiation, regardless of whether or not they had regional lymph nodes irradiation (Figure 3.4).



**Figure 3.3: Level of physical discomfort after radiotherapy (N=10,883)**



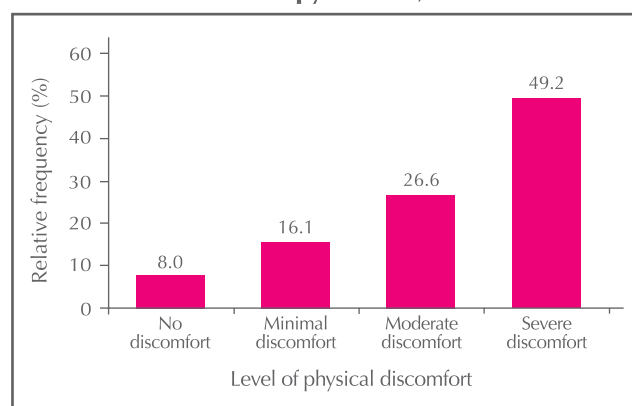
**Figure 3.4: Level of physical discomfort after radiotherapy by irradiated regions (N=7,230)**



### C. Physical discomfort after chemotherapy

3.4 Of the patients who had chemotherapy, 49.2% experienced severe physical discomfort due to side effects (Figure 3.5).

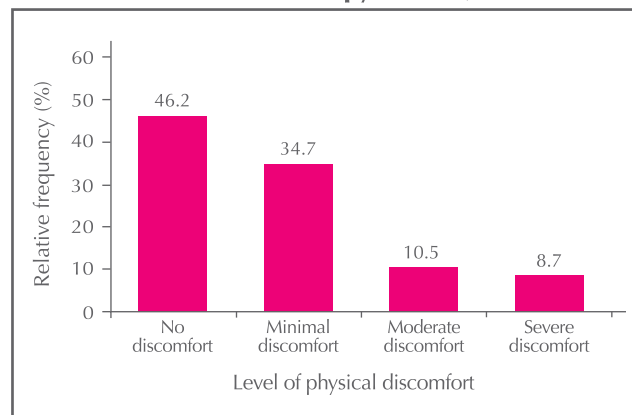
**Figure 3.5: Level of physical discomfort after chemotherapy (N=10,714)**



### D. Physical discomfort after endocrine therapy

3.5 Of the patients who had undergone endocrine therapy, 80.9% experienced no or minimal discomfort (Figure 3.6).

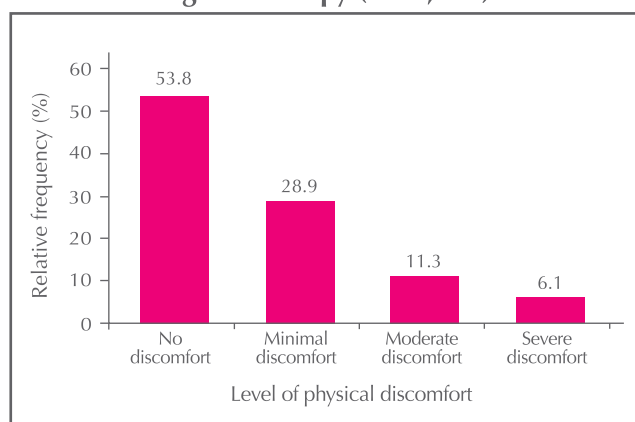
**Figure 3.6: Level of physical discomfort after endocrine therapy (N=11,660)**



### E. Physical discomfort after targeted therapy

3.6 Of the patients who had undergone targeted therapy, 82.7% experienced no or minimal discomfort (Figure 3.7).

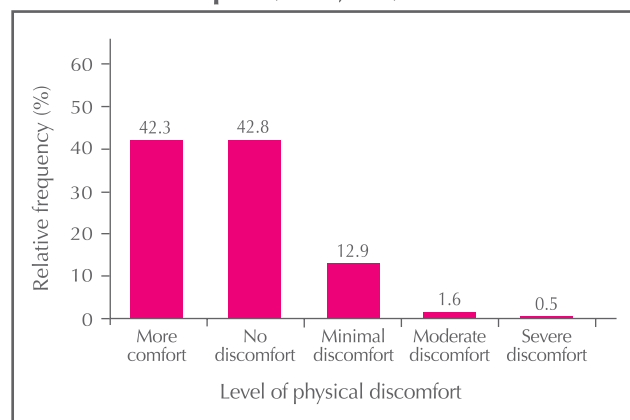
**Figure 3.7: Level of physical discomfort after targeted therapy (N=2,413)**



### F. Physical discomfort after complementary and alternative therapies

3.7 Of the patients who received complementary and alternative therapies, 55.7% felt no or minimal discomfort, and 42.3% felt more comfortable (Figure 3.8).

**Figure 3.8: Level of physical discomfort after complementary and alternative therapies (N=7,108)**



## III. Psychosocial impact and adjustments after diagnosis and treatment

### A. Psychosocial impact after diagnosis and treatment

3.8 At diagnosis, 47.7% of the patients accepted their diagnosis with a calm or positive attitude. In contrast, 23.1% could not accept their diagnosis (Table 3.1). After treatment, 31.2% of the patients felt that cancer was a wake-up call that caught them by surprise. As for other changes, 49.9% reported having a positive change in their outlook on life and 40.1% reported having a positive change in their self-image after cancer diagnosis and its treatment (Table 3.1).

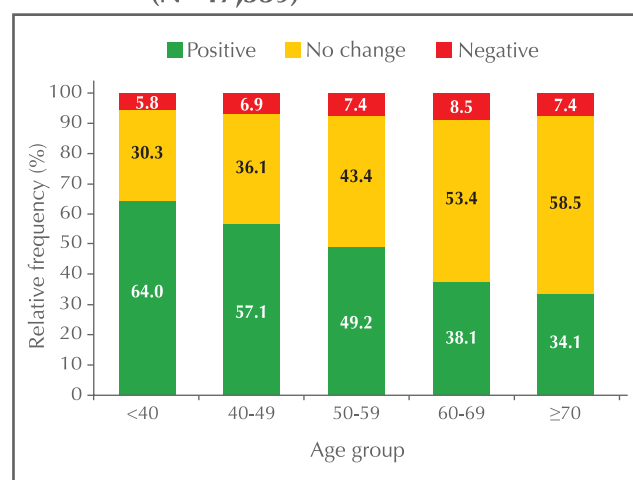


Table 3.1: Psychosocial impact of breast cancer

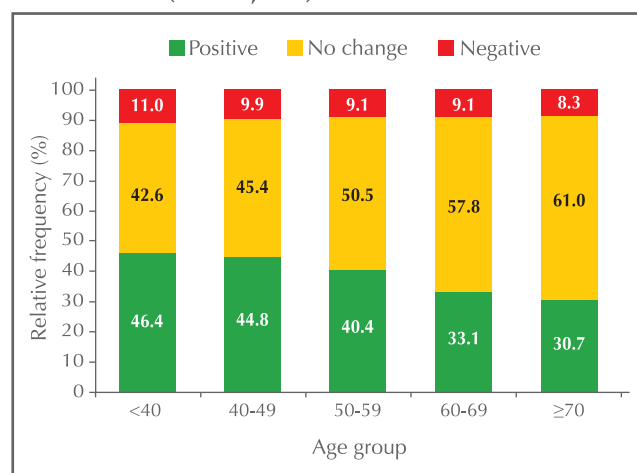
	Number	%
<b>Feelings at time of breast cancer diagnosis (N=17,764)</b>		
Acceptance and positive attitude to fight	3,909	22.0
Calm acceptance	4,559	25.7
Acceptance with depression	4,868	27.4
Lack of acceptance ("It cannot be true.")	4,103	23.1
Acceptance with anger ("Something must be wrong.")	325	1.8
<b>Feelings after breast cancer treatments (N=12,647)</b>		
Cancer was a wake-up call that caught patient by surprise	3,943	31.2
Life was not fair	7,143	56.5
Cancer changed patient's value system	752	5.9
Cancer took away something from patient	809	6.4
<b>Change in outlook on life (N=17,899)</b>		
Positive	8,930	49.9
Negative	1,306	7.3
No change	7,663	42.8
<b>Change in self-image (N=17,890)</b>		
Positive	7,182	40.1
Negative	1,700	9.5
No change	9,008	50.4

3.9 In the patient cohort, positive change in outlook on life was negatively associated with increasing age. The proportion of patients who reported having no change in their outlook on life increased with age (Figure 3.9). Similar pattern was also found in the change in self-image (Figure 3.10).

Figure 3.9: Change in outlook on life by age group (N=17,539)



**Figure 3.10: Change in self-image by age group (N=17,535)**



### B. Psychosocial adjustments and coping strategies

3.10 Of the 18,289 patients in the cohort, 79.8% reported having changes in their lifestyle after diagnosis with breast cancer. A change in diet (72.6%) was the most common lifestyle change, followed by increased exercise (61.1%). In addition, 11.6% of the patients resigned from their jobs (Table 3.2).

3.11 In the patient cohort, the two most common ways of managing negative emotions were direct verbal expression (55.9%) and diverting attention from negative emotions (32.3%) (Table 3.2).

### C. Level of worry about recurrence

3.12 A quarter of the patients did not worry about recurrence, while 55.6% always or sometimes worried about recurrence (Table 3.2). The level of worry about recurrence showed correlation with the patients' age: the proportion of patients who never worried about recurrence increased with increasing age, while the proportion of patients who always worried about recurrence decreased with increasing age (Figure 3.11).

**Table 3.2: Psychosocial adjustments and coping strategies for survivorship**

	Number	%
<b>Types of lifestyle changes (N=14,598)*</b>		
Changing diet	10,598	72.6
Doing more exercise	8,923	61.1
Taking health supplements	3,081	21.1
Reducing workload	2,765	18.9
Quitting job	1,695	11.6
<b>Ways of managing negative emotions (N=17,171)*</b>		
Direct verbal expression	9,592	55.9
Diverting attention from them	5,548	32.3
Ignoring them	1,965	11.4
Feeling depressed	1,174	6.8
Others	1,429	8.3
<b>Levels of worry about recurrence (N=17,902)</b>		
Never	4,443	24.8
Seldom	3,506	19.6
Sometimes	7,982	44.6
Always	1,971	11.0

\*The total percentages may exceed 100 as multiple changes or strategies may be applied.

**Figure 3.11: Level of worry about recurrence by age group (N=17,537)**

