# Psychiatric morbidity and pattern of coping among a sample of Egyptian women in early versus recurrent stage of breast cancer

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المراضة النفسية و نمط التكيف والدعم الاجتماعي في عينة من المريضات المصريات المصابات
بسرطان الثدي في المراحل المبكرة و مراحل الانتكاس

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## Abstract

Women with breast cancer have been known to present with high rates of psychiatric disorders, distressing symptoms and stressful experiences that mobilize different coping strategies and may require social support. **Objectives:** To describe the psychiatric morbidity, pattern of coping, and social support in a sample of Egyptian patients with breast cancer in the early postoperative and recurrent stages. **Materials and Methods:** A descriptive cross-sectional study was conducted with 100 female breast cancer patients from the Breast Cancer follow-up clinic at Ain Shams University Hospitals; 75 patients were in the early postoperative (Group-A) while 25 patients were in the recurrence stage (Group-B). All participants were evaluated using the Structured Clinical Interview for DSM Axis-I Disorders (SCID I). Further assessment was done using Beck Depression Inventory (BDI) to assess the severity of depression, the Manifest Taylor Anxiety Scale (MTAS) to assess anxiety state, the Dealing with Illness Coping Inventory to assess the pattern of coping, and the Medical Outcome Study (MOS) Social Support Survey to assess the perceived social support. **Results:** Higher rates of psychiatric morbidity reaching 76% of patients with recurrent breast cancer met the criteria for a psychiatric diagnosis compared to 54.7% of patients in the early stages. The spectrum of the current DSM-IV psychiatric diagnoses differed significantly between the two groups: 44% of the recurrent group had major depression compared to 17.3% in patients with post-operative early stage, the latter groups showed a high rate of anxiety disorders (29.3%) and sub-syndromal depressive symptoms (40%). The recurrent cases scored higher in Beck Depression Inventory (BDI) while the early cases scored higher in Manifest Taylor Anxiety Scale (MTAS). Active coping methods were frequently used by all patients; however, Avoidance Coping method (P=0.01) and Passive Resignation strategy (P=0.005) were significantly used more by the recurrent group. All types of social support were equally served for both groups; however, the recurrent group received more significant practical support. **Conclusion:** In the current study, Egyptian breast cancer patients demonstrated a high prevalence of psychiatric disorders, with mild to moderate symptom severity. In both early and recurrent stages some coping patterns may be influenced by the psychopathology and the stage of illness. Generally, patients received adequate emotional and practical support. Our findings provided the rationale for developing a program that facilitates early recognition and management of such high rate of psychiatric morbidity among women with breast cancer.

**Keywords:** Breast cancer, coping strategies, social support, depression, anxiety.
**Declaration of interest:** None

## Introduction

Breast cancer is one of the most common cancers in women, with gradual increasing incidence every year[1]. It is considered to be one of the main public health problems worldwide, due to its high morbidity, mortality and high social and economic cost[2]. It is a critical life event that has consequences within many life domains[3]. In Egypt, it accounts for 35.1% of all female cancers, with age – standardized Incidence rates (ASR) of 49.6/100,000 and it is expected to rise over the coming years[4]. Despite successful curative surgery and considerable improvement in pharmacological treatment, patients and their families remain with uncertainty due to the permanent threat of cancer recurrence at the same or different tumor sites[5].

Breast cancer has often been a source of severe psychosocial distress to patients and their families. As the public perception still portrays it as a deadly and disfiguring illness, and overestimates its physical, psychosocial, and economic impact[6]. Several studies focused on the role of psychiatric disorders as they are commonly encountered along the course of the disease. 80% of breast cancer patients reported significant distress during initial treatment, most often anxiety about loss of fertility, self-image, difficulties with

sexual functioning, fear of death, vocational difficulties and possibility of recurrence[7].

Also mood disorders, especially depression spectrum syndromes, have been the focus of several studies in cancer. Spiegel and Giese-Davis[8] suggested a common psycho-physiological mechanism linking depression and cancer through the dys-regulation of the Hypothalamic-Pituitary-Adrenal axis and immune functioning. The prevalence of depression in breast cancer varies widely, the reported rates range from as low as 1.5% -3%[9] to figures around 50%[10]. Still with these variations it is even thought that depression is under-recognized and underreported in those patients [11]. Improving detection of mood and anxiety disorders among breast cancer patients and their appropriate treatment may reduce suffering, improve quality of life and even survival[12] because there has been some evidence to suggest that depression and anxiety, in particular, are linked to cancer progression, poor treatment outcomes, quality of life and survival rates[13,14].

Psycho-social support and other personal variables have been reported to influence coping and well-being in breast cancer patients[15]. The relationship between these internal and external factors is complex and interdependent.

A plethora of research indicates that perception of social support and social integration is a significant good prognostic predictor[16], and is even associated with longer survival among women with advanced disease[17]. Similarly, the internal makeup of the individual, specific personality traits and other psychological variables that influence coping strategies can also modulate the biological aspects, the progression and the course of the neoplastic pathology[18].

A large body of literature has described the styles, degrees, and efficiency of coping in breast cancer patients. Data suggest that in general engagement rather than disengagement oriented coping strategies are linked to less distress, positive adjustment, better outcomes and higher quality of life [19].

The degree of impact and the level of coping with breast cancer differ along its' trajectory[20] with the recurrent phase of the illness being particularly distressing to patients and their partners[21]. Some studies indicate that cancer patients with a recurrent disease reported substantial psychological distress with loss of hope for recovery and fears of death[16], as well as, poorer physical functioning, more problems at home, work, social lives and difficult relationship with their families, physicians and other health professionals than patients with newly diagnosed disease[15].

Our objective was to assess psychiatric morbidity, pattern of coping and degree of social support in a sample of Egyptian women with early and recurrent breast cancer aiming to provide data essential which could be useful for policy maker to plan a tailored comprehensive service to reduce distress in those women.

## Participants and methods

This descriptive study was conducted at the weekly Breast Cancer follow-up clinic at Ain Shams University Hospitals, Cairo, Egypt, following the approval of the Research and Ethics Committee at the Ain Shams University.

The study included Egyptian female patients aged between 30-65 years who were diagnosed with breast cancer (stage I and II) and treated surgically by modified radical mastectomy or lumpectomy, also patients with local or regional recurrence. We excluded patients with metastasis, hepatic or renal-dysfunction and also cases receiving intensive, chemotherapy and radiotherapy, since side effects of such treatment might transiently affect adjustment and coping.

A total of one hundred and twenty patients who fulfilled the inclusion criteria agreed to participate in the study and signed a printed consent form. However, 20 patients dropped out (16.6%); Two patients (1.6%) withdrew consent, 13 (10.8%) did not attend the second visit for assessment, and 5 (4.2%) started extensive chemotherapy or radiotherapy before the second visit and hence, excluded. The remaining 100 patients were enrolled in the study and were divided into two groups: 75 early post-operative patients (mean age 48±9.5) comprised group (A) and 25 patients (mean age 47±9.6) who suffered recurrence after initial surgical treatment with or without radiotherapy or

chemotherapy comprised group (B). The mean disease – free interval between initial diagnosis and recurrence was 3.8±1.17 years.

All participants in the study were evaluated in two sessions by experienced and trained research investigators and were subjected to the following:

a) **The Fahmy and El-Sherbini's Egyptian Social Classification:** Scale which stratifies subjects into four social classes [22].

b) **Structured Clinical Interview for DSM-IV Axis I diagnosis clinical Version[23]:** the English version was used in this study.

c) **The Beck Depression Inventory (BDI)**; a 21-item self-report measure of the severity of depression state that is specifically geared to measure the behavioural, emotional somatic and cognitive manifestations of depression[24]. The Arabic version was used[25] with the following culturally validated cut-off scores for the Egyptian population; Normal (0-20), mild (21-31), moderate (32-41), and severe (≥42).

d) **The Manifest Taylor Anxiety Scale (MTAS)** [26]. This consists of 50 self-report items to assess the anxiety state. The Arabic version was used[27] with the following culturally validated cut off scores; Normal (0-16), mild (17-24), moderate (25-35), and severe (≥36).

e) **Dealing with Illness Coping Inventory**[28]. This is a self-administered questionnaire with forty-eight statements on a Likert scale aiming to measure three main coping methods (active cognitive, active behavioural and avoidance coping). Further, they are analyzed into eight specific coping strategies (e.g. active positive involvement, active experience information, active reliance on others, cognitive positive understanding, cognitive passive rumination, distraction, passive resignation and avoidance solitary passive behaviour.

f) **The Medical outcome Study (MOS) Social Support Survey**[29]. This is a 20-item self-report scale designed to measure four dimensions of perceived functional social support and interaction (emotional/informational, tangible/practical, affectionate, and total support).

Both the "Dealing with Illness Coping Inventory" and The "MOS Social Support Survey" were translated from English to Arabic with necessary semantic adaptation and back translated by two independent bilingual language expert translators and reviewed by an expert committee for cultural applicability [30].

As both the Dealing with Illness Coping Inventory and the MOS Social Support Survey were self-administered tools, illiterate subjects included in the research were assisted by the researchers to fill their forms.

### Statistical Analysis

Data analysis was done using Statistical Package for Social Sciences Version-10 (SPSS v.10). Student's *t-*

test was used for comparison between means of the different groups. Pearson Chi-Square Test ($\chi^2$) was used for comparison between qualitative variables. P value was used to indicate the level of significance where P≤0.05 is considered significant (SIG), P≤0.01 is highly significant (HS)≤P001 is (VHS) very highly significant.

## Results

The demographic characteristics of the two studied groups have been displayed in table (1). The mean age of group A and group B patients were 48±9.5 and 47±9.6 years respectively. No significant difference between the two groups as regard marital status, residency and social standard; however, there were significant difference as regard education received and occupation.

49.3% of group (A) patients were illiterate or just read and write, 26.6% completed university education or beyond. The rest received different types of pre-university education, on the other hand 16% of group (B) patients were university graduates, 40% illiterate and the rest had mainly secondary school education. The majority in both cohorts were house wives. The rest were in paid employment they were predominantly semi-professionals and non-professionals. Unfortunately, we could not obtain data about their ability to work due to illness.

**Table 1: The socio-demographic characteristics of patients with early vs. recurrent stage of breast cancer**
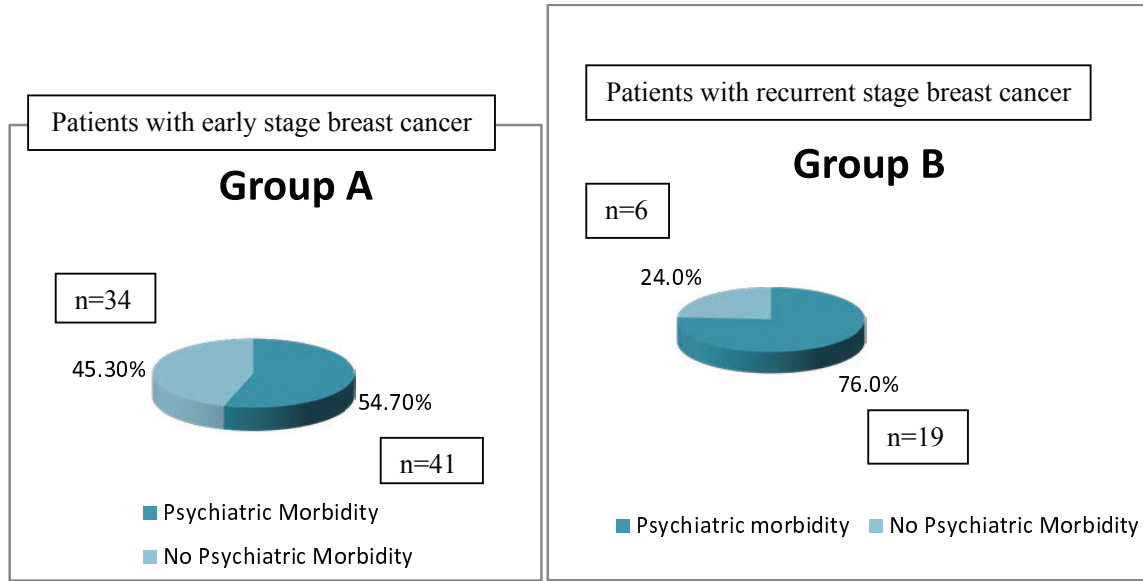
| Variable | Group A N = 75 | | Group B N = 25 | | P. value |
|---|---|---|---|---|---|
| **Age** (Mean± SD) | 48± 9.5 | | 47± 9.6 | | 0.7 (NS) |
| **Marital status:** | N | % | N | % | |
| Married | 49 | 65.3 | 18 | 72 | |
| Single | 1 | 1.3 | 0 | 0 | 0.8 (NS) |
| Divorced | 3 | 4 | 1 | 4 | |
| Widow | 22 | 29.3 | 6 | 24 | |
| **Education:** | N | % | N | % | |
| Illiterate | 30 | 40 | 4 | 16 | |
| Reads & writes | 7 | 9.3 | 6 | 24 | |
| Primary | 5 | 6.7 | 2 | 8 | |
| Preparatory | 8 | 10.7 | 2 | 8 | 0.02 (SIG) |
| Secondary | 5 | 6.7 | 7 | 28 | |
| University | 10 | 13.3 | 2 | 8 | |
| Post graduate | 10 | 13.3 | 2 | 8 | |
| **Occupation:** | N | % | N | % | |
| Nonprofessional | 2 | 2.7 | 4 | 16 | |
| Semi-professional | 22 | 29.3 | 4 | 16 | 0.04 (SIG) |
| Professionals | 4 | 5.3 | 0 | 0 | |
| House wives | 47 | 62.7 | 17 | 68 | |
| **Residence** | N | % | N | % | |
| Urban | 50 | 66.7 | 15 | 60 | 0.8 (NS) |
| Rural | 25 | 33.3 | 10 | 40 | |
| **Social level:** | N | % | N | % | |
| High | 16 | 21.3 | 5 | 20 | |
| Middle | 6 | 8 | 3 | 12 | 0.78 (NS) |
| Low | 20 | 26.7 | 6 | 24 | |
| Very low | 33 | 44 | 11 | 44 | |

**Group "A"** Patients with early stage breast cancer
**Group "B"** Patients with recurrent stage breast cancer

Data illustrated in figure (1) shows that psychiatric morbidity was relatively high in both groups. 76% of patients with recurrent breast cancer met the criteria for a psychiatric diagnosis compared to 54.7% in the early stage patients.

**Figure 1. Psychiatric morbidity among patients with early vs. recurrent stage of cancer breast**

Patients with early stage breast cancer

## Group A

n=34

45.30%

54.70%

n=41

■ Psychiatric Morbidity

■ No Psychiatric Morbidity

Patients with recurrent stage breast cancer

## Group B

n=6

24.0%

76.0%

n=19

■ Psychiatric morbidity   ■ No Psychiatric Morbidity

x2= 3.50, df=1, P=0.05

The spectrum of the current DSM-IV psychiatric diagnoses differ significantly between the two groups (P=0.015) table (2). At the time of initial shock of diagnosis, women with early stage breast cancer had a higher rate of anxiety disorders including also adjustment disorder with anxious mood (30.7%); furthermore they had a higher rate of sub-syndromal depressive symptoms (41.3%) than patients in recurrence group.

**Table 2. Psychiatric morbidity among patients with early vs. recurrent stage of breast cancer**

| Psychiatric diagnosis | Early stage Group A (n=75) | | Recurrent stag Group B (n25) | | |
|---|---|---|---|---|---|
| | No | % | No | % | |
| Anxiety disorders & adjustment dis. with anxious mood | 23 | 30.7 | 3 | 12 | x2=12.32 |
| Minor depression (dysthymia & adjustment dis. with depressed mood | 4 | 5.3 | 4 | 16 | df=4 |
| Major depression | 13 | 17.3 | 11 | 44 | P=0.015 |
| Subsyndromal mood symptoms | 31 | 41.3 | 6 | 24 | |
| Non detectable | 4 | 5.3 | 1 | 4 | |

The stress of living with serious recurrent illness in group (B) patients reflect the high rate of both major depression (44%) and minor depression (16%) this including adjustment disorder with depressed mood and dysthymia.

The severity of depression as measured by Beck Depression Inventory (BDI) indicates that cancer breast patients with recurrence had greater tendency to have moderate to severe depression compared to their early stage counterparts (P=0.019), while the level of anxiety as estimated by Manifest Taylor Anxiety Scale (MTAS) revealed no significant differences between the two groups, however, the early group showed higher tendency to have moderate anxiety, in contrast to the recurrent group who suffered more from mild anxiety (table 3).

**Table 3. Severity of depression and anxiety symptoms**

| | Group A N = 75 | | Group B N = 25 | | |
|---|---|---|---|---|---|
| **Depression state: (BDI)** | **N** | **%** | **N** | **%** | |
| Mild | 31 | 41.3 | 15 | 60 | X2=9.91 |
| Moderate | 25 | 33.3 | 6 | 24 | df=3 |
| Severe | 3 | 4 | 3 | 12 | P=0.019 |
| No | 16 | 21.3 | 1 | 4 | |
| **Anxiety state: (MTAS)** | **N** | **%** | **N** | **%** | |

| | | | | |
|---|---|---|---|---|
| Mild | 40 | 53.3 | 9 | 36 |
| Moderate | 32 | 42.7 | 15 | 60 |
| Severe | 2 | 2.7 | 1 | 4 |
| Normal | 1 | 1.3 | 0 | 0 |

x2=2.79
df=3
P=0.425

Beck Depression Inventory (BDI)
Manifest Taylor Anxiety Scale (MTAS)

In general, depression is more common among recurrent group, while anxiety is more prevalent in the early stage group. The MOS social support survey was used to evaluate various dimensions of social support irrespective of the source. The scores presented in table (4) indicate that there is a high statistically significant difference concerning the practical type of social support (P=0.005), which is higher in the recurrent group. However, other types of social support are equally served for both groups.

Adaptation to cancer diagnosis and treatment is influenced by psychosocial resources such as coping strategies that women learn during their cancer experience.

**Table 4. The degree of social support (MOS Social Support Survey)**

| | Group A N = 75 | Group B N = 25 | P value |
|---|---|---|---|
| **Social support** | **Mean±SD** | **Mean±SD** | |
| Emotional informational | 39.2±9.9 | 39.9±9.09 | 0.74 (NS) |
| Practical | 16.06±3.5 | 18.8±2.29 | 0.005 (HS) |
| Affectionate | 12.9±4.8 | 13.6±3.8 | 0.49 (NS) |

Test used "t" test

Table (5) describes the different pattern of the coping strategies of the female cancer breast patients indicating that the most used coping methods are the active cognitive and behavioural methods, and were equally used in both group (P= 0.11). While avoidance coping method was significantly used by the recurrent group (P= 0.016). With respect to specific coping strategies; the active reliance on other was the most used strategy across both groups. The recurrent group preferentially used Active Positive Involvement (P=0.04) and Passive Resignation (P=0.005) strategies as compared to group (A).

**Table 5. Patterns of the coping strategies (Dealing with Illness Coping Inventory)**

| | Group A N = 75 | Group B N = 25 | P value |
|---|---|---|---|
| **Coping methods** | **Mean±SD** | **Mean±SD** | |
| Active cognitive | 3.5±0.8 | 3.7±0.6 | 0.11 (NS) |
| Active behavioural | 2.8±0.6 | 3.0±0.6 | 0.15 (NS) |
| Avoidance | 2.0±0.5 | 3.3±0.5 | 0.016 (SIG) |
| **Coping strategies** | **Mean±SD** | **Mean±SD** | **P value** |
| Active positive involvement | 3.0±0.8 | 2.4±0.96 | 0.04 (SIG.) |
| Active expressive | 3.2±0.9 | 3.3±1.0 | 0.74 (NS) |
| Active reliance on other | 4.3±1.0 | 4.2±1.1 | 0.89 (NS) |
| Cognitive positive understanding | 3.9±0.9 | 4.2±0.6 | 0.32 (NS) |
| Distraction | 2.3±0.8 | 2.5±0.5 | 0.16 (NS) |
| Cognitive passive ruminative | 2.7±0.9 | 2.9±1.0 | 0.37 (NS) |
| Passive resignation | 2.1±1.1 | 3.8±0.8 | 0.005 (HS) |
| Avoidance / solitary behaviour | 2.4±1.2 | 2.1±0.8 | 0.25 (NS) |

Test used *t*-test

## Discussion

In most Arab countries, many individuals are afraid to mention the word "cancer" directly, and usually refer to it as ''that other dreaded disease'' [4]. This stigma might have contributed to the tendency of Egyptian women to neglect their symptoms, where 60% to 90% failed to seek medical attention until their cancer is advanced [31]. At this stage, mental health problems become nearly inevitable, and the stigma intensifies when the psychiatric stigma adds another complicating dimension to it. The resulting disfigurement and feeling of losing femininity following radical surgery is one of the most important factors leading to major psychological sequelae. Hence, it was necessary to investigate the prevalence of common mental health problems in Egyptian breast cancer patients and describe their coping strategies and social support in order to pave the way to the incorporation of culturally competent psychosocial care for such a dually disadvantageous group. It should be emphasized that the psychosocial impact of breast cancer differs across phases of the illness trajectory. Understanding these

changing psychosocial needs is essential to offer successful timely targeted interventions. Hence, the need to conduct comparative studies throughout the illness course to elicit the specific needs and integrate a phased tailored intervention. Such an approach is crucial in the development of cost-effective services, especially in a developing country, like Egypt. To fulfil part of this need, we used the structured clinical interview for DSM-IV axis I diagnosis (SCID I) to examine 100 patients with different stages of breast cancer. The psychiatric morbidity rate was 54.7% and 76% for the early post-operative cases and the group with recurrence respectively. These rates were much higher than those reported in western literature, for example, Grabsch et al [32] using DSM-IV diagnosis reported 43% prevalence rate for current psychiatric disorder with advanced breast cancer in Australian women, with nearly the same rates detected by Kissane et al. [33] with early-stage breast cancer in a similar population (45%), and those reported by Derogatis et al [34], in a multi-centric study (47%). In comparison to these rates, our finding is certainly alarming. An explanation for this finding may point to the cultural difference or to the possible small sample effect. Initial psychological responses to cancer normally include anxiety, fears and worries related to the future prognosis, survival, breast loss and impaired body image [35, 36]. Acute anxiety occurs for cancer patients at several points, e.g. while awaiting the diagnosis of cancer, while awaiting procedures and tests, while awaiting test results, with a change of treatment, after learning of relapse, and on the anniversary of illness-related events [37]. In our study, early stage patients had a high rate of anxiety spectrum disorders and adjustment disorder with anxious mood, this rate is remarkably consistent with reports of Allam et al [38] in an Egyptian study. But in contrast to Härtl and his co-workers[39] who found that anxiety scores in his breast cancer patients had not changed during the first year after diagnosis and surgery, but became greater after one year. Findings in an Egyptian sample studied by Fahmy and colleagues [40] revealed that 40% of their sample were suffering from adjustment disorder, chronic, with mixed anxiety and depression; 42.5% was found by Abdel Azim [41] and 38.7% of another studied group by Gaballa et al[42] were having anxiety. The process of adapting to stress induced by anxiety seems to change with time. This was clear in our findings which clarified that the rate of anxiety disorders in the recurrent group was much less than the early group. This may indicate that the initial treatment phase is highly traumatic as in comparison to later or recurrent phases; or that some patients with recurrent breast cancer develop considerable resilience and improvement in some psychological functioning. Understanding these changes can have an impact on the choice of appropriate psychosocial interventions [21]. We found that anxiety symptoms were invariably present in our Egyptian sample, mostly of mild and moderate degrees (42.7% and 53.3% respectively). In Turkish breast cancer samples, where Karakoyun-Celik et al. [43] reported grade II moderate anxiety in 77%, while Alacacioglu et al. [44] found that the mean anxiety score on the State-Trait Anxiety Inventory was 44.9 ± 8.7, which falls mainly within the moderate range.

During the recurrent phase of illness patients reported more pain, fatigue, emotional distress, physical problems and social restriction which may explain the high prevalence of depression in this phase [12, 45]. Depression was found to be the most common psychiatric disorder observed in patients with recurrent cancer while 44% had major depression; 16% had minor depression and adjustment disorder with depressed mood. Approximately, similar distribution however, with lower rates was described by Kissane et al. [12]. The prevalence of depression was speculated in different cancer patients by Abdel Azim et al. [46] and was found to reach 55% and by El Batrawi and Moussa[47] was reaching 60%, among them 50% was ranging between mild to moderate. Lower prevalence 37.9% was found in other studies on an Egyptian population suffering from different types of malignancy [41].

In both sample groups we found that depressive states were from mild to moderate severity, therefore, one can speculate that it can be readily and cost-effectively treated early using antidepressants plus supportive care[48] and endorsement of positive coping skills, which can lead to a substantial alleviation in the depressive state in this population.

Social support has been extensively studied as a central variable that moderates coping and adjustment either directly or through buffering the effect of stressful events [49]. It can help to decrease the negative affective states and symptoms of distress and improve the quality of life in women with breast cancer [50]. Social support has been always thought to lie in the core of the traditional collectivistic nature of the Arabic culture with its extended families. Whether the degree of social support for women in the Arabic culture is adequate or equivalent to men in such a patriarchal society [51] or whether social support for women with cancer is influenced by the life threatening nature of the illness as in comparison to a normal female population has not been researched. Unfortunately, this study design will not be able to answer these questions. Hence, further research is needed to investigate the degree and impact of social support in the Egyptian population across. One of the purposes of this research was to investigate the types of social support received by women with breast cancer. Data obtained revealed that both women with early and recurrent stage of breast cancer received equal emotional, informational and affectionate support from their family network.

We found a high significant difference concerning the practical type of social support (P=0.005) provided to women in the recurrent phase of their illness in comparison to those in the early phase. Perhaps especially during the recurrence phase more practical help is needed particularly due to the associated physical limitation, pain, and other morbidities. As in other Arab countries, we utilize family care and support as a remedial strategy to compensate for the lack of services and resources, our findings were congruent with findings from studies conducted among Arab women with breast cancer in Jordan [52] and in

contrast to western communities in which health care providers play a crucial role in helping women with breast cancer when they lose their existing support from peers and family members[53].

Cancer is a traumatic stressor, which mobilizes complex psychological adaptive processes; women develop reactions and strategies to cope with the situation. Coping describes the group of skills and abilities utilized by an individual when faced with stressful situations. Active coping is directed to change the nature of the stressor itself (i.e. behavioural) or how the individual thinks about it (i.e. cognitive). In contrast, avoidance strategies aim to prevent a direct confrontation with stressful events [54]. Active coping is generally thought to be a good psychological marker which can improve adjustment, and reduce psychological distress [1, 55, 56, 57]. In the current study, both groups of breast cancer patients depended upon active cognitive and behavioural coping, this was supported by Abdel Azim et al., [41] who found that active cognitive coping was the most used coping method by cancer patients regardless of different levels. However, in patients with breast cancer recurrence, negative coping strategies transpire. We found that recurrent group used avoidance coping methods significantly more than the early group, similarly, was the use of passive resignation. The same finding was reported by Foad et al [30] and Abd el Azim[41] in Egyptian cancer patients. Perhaps patients in recurrence feel more resigned to their fate and may tend to resort to avoidance to hide their existential concerns. With the limitation of our descriptive cross-sectional design, it is difficult to conclude that the use of negative coping is solely the function of recurrence, and not the time factor, which can substantially shape the coping method used [58]. Studies must follow the coping strategies of individuals along the trajectory of their illness for a sufficiently long time to observe any stage-related differences in the coping process and to clarify the impact of cultural factors on the coping process, e.g. in Moslem societies like Turkish and Jordanian, they use the same type of spiritual coping as in our patients [41, 47, 59].

## Implications and recommendations

In clinical practice, it is always useful to examine the psychosocial status of patients during follow-up visits and oncologists should pay attention not only to the impersonal determinants of cancer prognosis, as its stage, metastases, etc., but also to consider the possible role of intrapersonal factors as coping strategies, depression, and anxiety as well as interpersonal factors; as social support and other external life stressors. Oncologists should be proactive in inquiring about these factors as sometimes patients are reluctant to discuss or disclose their symptoms either because of the high emotional repression tendency in cancer patients, or their fear of the mental health stigma, or their fear of distracting the oncologist from curing their cancer [60]. This practice can foster a better physician-patient relationship, improve compliance and outcomes, and endorse the fighting spirit, especially in cancer patients [61].

From a service perspective, pathways to expert psychiatric care should be readily accessible to oncology patients as an integral part of their treatment and rehabilitation. This should aim to deliver individualized, needs oriented, and timely psychosocial interventions. Health services in Egypt and the Arab countries should endeavour to address the psychosocial needs together with physical health needs of cancer patients as part of a comprehensive bio-psycho-social approach. Social care and health services should also invest in providing appropriate community support for patients, especially with respect to practical and informational support. Our study illustrated the methodological difficulties for interpreting descriptive psychosocial data in small cross-sectional studies. Clearly, more future longitudinal studies with larger sample are required for further investigations. Multi-centric cross cultural studies can be helpful in interpreting and understanding the possible unique socio-cultural effect.

## Conclusion

Psychiatric morbidity is high among patients with breast cancer. The spectrum of psychiatric disorder differs significantly between patients with early postoperative stage and those with recurrence. Depression as a whole was encountered more frequently in the recurrent stage groups, while the rate of anxiety disorders (including adjustment disorder with anxious mood) was high among early stage group. Both groups received emotional, informational and affectionate support; furthermore they utilized similar active, cognitive coping methods and similar coping strategies except that the recurrent group showed higher significant avoidance coping method and passive resignation coping strategy.

We suggest that psychiatric screening is required for patients attending oncology clinics to ensure the early recognition and intervention for psychiatric disorders among women with breast cancer in different stages. Patients should be encouraged to seek professional psychiatric services. Educational program should be offered to care-givers to enhance effective social support and appropriate coping strategies.

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## الملخص

وجد أن النساء المصابات بسرطان الثدي لديه ن معدلات عالية من الاضطرابات النفسية ، كما أن الأعراض المؤلمة والتجارب المجهدة قد تعمل على حشد مختلف استراتيجيات المواجهة وتتطلب الدعم الاجتماعي. **الهدف من الدراسة :** هو توصيف المراضة النفسية و كذلك نمط التكيف والدعم الاجتماعي في عينة من مريضات سرطان الثدي المصريات ما بعد الجراحة مباشرة وفي مراحل الانتكاسات. **طرق البحث:** دراسة وصفية مستعرضة تمت على 100 من مريضات سرطان الثدي المصريات في عيادة سرطان الثدي في مستشفيات جامعة عين شمس ، 75 مريضة في ما بعد الجراحة في وقت مبكر (المجموعة ألف) ، في حين أن 25 مريضة كن يعانين من انتكاسة مرضية (المجموعة باء). تم تقييم جميع المشاركات باستخدام إستمارة المقابلة الإكلينيكية المبنية على الدليل الأمريكي الإحصائي الرابع للأمراض النفسية لتشخيصات المحور الأول. وقد تم تقييم شدة الاكتئاب باستخدام مقياس بيك، ومقياس تايلور للقلق، عمل مقياس التعامل و التكيف مع المرض و مقياس الدعم الاجتماعي لجميع المريضات. **النتائج:** وجد أن معدلات المراضة النفسية في مريضات سرطان الثدي اللاتي يعانين من الإنتكاس مرتفعة. حيث كانت نسبة الاكتئاب الجسيم تصل إلى 44% بينما كانت النسبة في مريضات ما بعد الجراحة 17.3%. و وجد أن المجموعة الأخيرة كانت تعاني من اضطرابات القلق 29.3 % و أعراض الاكتئاب بسيطة 40%. وسجلت أعلى درجات الاكتئاب في مقياس بيك بين المريضات اللاتي يعانين من الإنتكاس بينما وجد أن أعلى درجات القلق بين الحالات المبكرة. وكثيراً ما تستخدم أساليب التكيف الإيجابي بين جميع المريضات، ولوحظ أن نمط التجنب و الاستسلام الهلبي كانت الأكثر استخداماً بين المريضات المنتكسات. كما أن الدعم الاجتماعي قدم لجميع المريضات، ولكن المريضات المنتكسات تلقين الدعم العملي بطريقة أكثر. **الخلاصة:** ترتفع المراضة النفسية لدى مريضات سرطان الثدي المصريات وتتأرجح شدة المرض بين خفيفة إلى معتدلة. كما تتأثر أنماط التكيف بالمرض النفسي؛ وأوضحت الدراسة الدعم الذي يقدم للمريضات نفسياً و عملياً. **نتائج الدراسة:** تعطي أسباباً لعمل برنامج يساعد على سرعة اكتشاف و علاج المراضة النفسية في هؤلاء المريضات.

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