

PSYCHIATRIC MORBIDITY AMONG CANCER PATIENTS AND ITS RELATIONSHIP WITH AWARENESS OF ILLNESS AND EXPECTATIONS ABOUT TREATMENT OUTCOME

P. JOHN ALEXANDER, NARAYANAKURUP DINESH and M. S. VIDYASAGAR

Sixty consecutive patients admitted to an oncology unit in a general hospital were systematically assessed to determine the prevalence of psychiatric disorders. Patients' awareness of the diagnosis of cancer and their perception of treatment intention and outcome were assessed independently by another investigator who was blind to the psychiatric diagnosis. Forty percent of the sample had a diagnosis of psychiatric disorder, based on the Diagnostic and Statistical Manual for Mental Disorders (3rd edition, revised). Adjustment disorders comprised most of the psychiatric diagnoses. Major depression was seen in 8 (13%) patients. One third of the patients were estimated to be unaware of the diagnosis of cancer, and 82% of patients perceived the treatment given as curative. Psychiatric morbidity was significantly less common in patients who did not know they had cancer, and in those who considered treatment as curative. The prevalence of depressive disorders in our sample was higher than in medical inpatients. It is concluded that psychiatric disorders, especially affective disorders, are common among cancer patients. Awareness of nature of the illness and expected outcome can affect the prevalence of psychiatric morbidity. Further studies investigating the relationship between psychiatric morbidity and duration of illness, type and stage of cancer, disabilities and coping strategies are warranted.

The experience of having a life-threatening illness like cancer is normally expected to produce significant psychological distress. However, if the emotional response to the diagnosis of cancer becomes pathological, it can interfere with the patient's comfort, quality of life, ability to make appropriate treatment decisions and compliance with treatment (1). Thus, for the proper management of patients, it is essential to be aware of the overall psychiatric morbidity among cancer patients. Most studies of the prevalence of psychiatric disorders among cancer patients are limited to specific psychiatric disorders like depression and anxiety, and have found a prevalence of 25% to 50% for these

conditions (2–4). However, many of these studies have been criticized for biased sampling, reliance on self-rating instruments, lack of systematic assessment of psychopathology and non-assessment of the whole range of psychiatric disorders (5, 6). The study by Derogatis et al. (5) stands out as having systematically assessed the entire range of psychiatric disorders; these authors found a prevalence of 47% for DSM-III psychiatric disorders among their sample of cancer patients.

There is a dearth of knowledge about the prevalence of psychiatric disorders among cancer patients in developing nations like India, due to lack of systematic studies covering the entire range of psychiatric disorders. Also, clinical experience and research evidence suggest that in India many cancer patients are not informed about their diagnosis and prognosis, although relatives are informed in detail (7). Hence, some patients may not be aware of the diagnosis of cancer, or might have the wrong perception about the outcome of treatment of their illness. Awareness of the nature of the illness and expectations of outcome might

Received 29 December 1993.

Accepted 19 August 1993.

From the Departments of Psychiatry (P. J. Alexander, N. Dinesh) and Oncology (M. S. Vidyasagar), Kasturba Medical College, Manipal, India.

Correspondence to: Dr P. John Alexander, Department of Psychiatry, Kasturba Medical College, Manipal 576 119, India.

influence the prevalence of psychiatric disorders among cancer patients. The present study was undertaken to obtain a valid estimate of the prevalence of psychiatric disorders among cancer patients in India, and to find out whether psychiatric morbidity differs based on the patients' awareness of the diagnosis and their expectations of treatment outcome.

Material and Methods

The study sample was drawn from among the patients admitted to one of the two oncology units of Kasturba Medical College, Manipal. Consecutive patients who were admitted during the study period to the unit (except patients admitted to an intensive care unit) with a primary diagnosis of neoplastic disease were considered for the study. However, patients admitted only for diagnostic purposes were not included. Patients were selected without regard to diagnostic classification, treatment regimen or duration of illness.

Patients were informed that the aims of the study were to determine the prevalence of psychiatric morbidity in hospitalized patients, and to assess their awareness of the illness from which they were suffering. Available relatives were also informed in detail. All patients were assessed within 3 to 7 days of admission. Of the eligible patients only 3 were excluded: 2 patients were so ill that a detailed psychiatric interview was not possible and one patient refused to participate.

Patients' awareness of the diagnosis of cancer and their perception of the nature of the treatment given (curative or palliative) were determined after detailed questioning by a clinical psychologist (ND) who was blind to the psychiatric diagnosis. During the interview, which generally lasted 15 to 20 minutes, patients were asked tactfully about the nature of their illness, the reasons for hospital admission and their expectations about the outcome of the treatment given.

Each patient's psychiatric status was evaluated in a detailed psychiatric interview by an experienced psychiatrist (PJA). This investigator was blind to the psychologist's assessment about patients' awareness about illness and perception of the nature of treatment. A psychiatric diagnosis was made according to the criteria of the DSM-III-R (8). The DSM-III-R (Diagnostic and Statistical Manual for Mental Disorders, 3rd edition, revised), published in 1987 by American Psychiatric Association, has been extensively used in psychiatric research and is considered reliable (8). The DSM-III-R is a multi-axial diagnostic system wherein each person can be evaluated on five different axes. Axis I consists of clinical psychiatric syndromes, axis II of personality disorders and developmental disorders, and axis III of physical disorders. Axes IV and V are not routinely used in clinical assessment, and consist of psychosocial stressors and global assessment of functioning. Only axis I and axis

II diagnoses were used in the present study. Provision of explicit inclusion and exclusion criteria increases the reliability of the DSM-III-R diagnosis (8).

χ^2 -test was used to analyze the results of discrete variables, and Student's *t*-test to analyze continuous variables.

Results

The total sample size was 60 patients. Socio-demographic characteristics of the 60 patients are shown in Table 1. There were no significant differences between the patients who had and did not have psychiatric morbidity in age ($t = 0.8$), sex ($\chi^2 = 0.6$) or marital status. The mean time elapsed since the diagnosis of cancer and psychiatric assessment was 11.2 months (SD 16.7 months) in patients without psychiatric morbidity, and 7 months (SD 4.4 months) in patients with psychiatric morbidity. The difference between the two groups was not significant ($t = 1.2$).

Patients' awareness of the diagnosis of cancer, their perception of treatment outcome and the distribution of psychiatric disorders are shown in Table 2. Even after detailed enquiry, 20 patients (33%) were rated as not aware of the diagnosis of cancer. Most of them claimed to be suffering from other physical illness such as tuberculosis or anemia, or mentioned specific symptoms such as difficulty in swallowing, cough, etc., as reasons for admission and treatment. Forty-nine (82%) patients expected to be cured by the treatment given. Four of the 20 patients who were apparently unaware of the diagnosis of cancer had psychiatric morbidity. Two of them had adjustment disorder, one had panic disorder and one had major depression. Sixteen of 49 patients who expected to be cured by the treatment had psychiatric morbidity. However, psychiatric disorders were significantly more common among the group who were aware of the diagnosis than among naïve patients ($\chi^2 = 5$ $df = 1$; $p < 0.05$). Also, psychiatric morbidity was more common among patients

Table 1
Demographic characteristics of 60 cancer patients

Demographic characteristics	Patients with psychiatric illness (n = 24)	Patients without psychiatric illness (n = 36)	Total (n = 60)
Sex			
Male	13	23	36
Female	11	13	24
Age (years)			
Mean	55.0	52.1	53.2
S.D.	13.3	14.3	13.9
Marital status			
Single	0	2	2
Married	17	29	46
Divorced	1	1	2
Widowed	6	4	10

Table 2

Distribution of psychiatric morbidity based on patients' awareness of disease and expectation of outcome (n = 60)

Characteristic	Psychiatric diagnosis	
	Present	Absent
Awareness of cancer ^a		
Aware	20	20
Not aware	4	16
Expectations about treatment outcome ^b		
Curative	16	33
Palliative	8	3

^a Psychiatric morbidity was significantly greater in patients who were aware of the diagnosis of cancer ($\chi^2 = 5$, $df = 1$, $p < 0.005$).

^b Psychiatric morbidity was significantly greater in patients who perceived the nature of treatment as palliative ($\chi^2 = 6$, $df = 1$, $p < 0.025$).

who considered treatment as only palliative than among those who expected to be cured ($\chi^2 = 6$ $df = 1$; $p < 0.025$).

Twenty-four of the 60 patients had a DSM-III-R diagnosis, giving a prevalence of 40% psychiatric morbidity. Table 3 gives a detailed DSM-III-R categorization of psychiatric disorders. Adjustment disorders accounted for 50% of all diagnoses, with a prevalence of 20%. Major depression was the next most frequent disorder, with a prevalence of 13%, and accounted for 33% of all diag-

Table 3

DSM-III-R psychiatric diagnosis in 60 cancer patients

Diagnostic category	n	Total % of psychiatric disorders
Axis I		
Delirium	1 (2)	4
Major depression	8 (13)	32
Dysthymia	1 (2)	4
Adjustment disorder with depressed mood	6 (10)	24
Adjustment disorder with mixed emotional features	4 (7)	16
Adjustment disorder with anxious mood	2 (3)	8
Panic disorder with agoraphobia	2 (3)	8
Axis II		
Obsessive compulsive personality disorder	1 (2)	4
Total ^a	25 (42)	100

^a Although the total number of psychiatric disorders was 25, one patient had both axis I and axis II disorders. Hence the total number of patients with psychiatric disorder is 24 (40%).

noses. One patient had a DSM-III-R axis II diagnosis (obsessive compulsive personality disorder); this patient had a coexistent axis I diagnosis (major depression).

Discussion

Methodological advantages of our study are its detailed evaluation of psychopathology covering the entire range of psychiatric disorders, diagnosis based on research criteria and blind rating. However, our sample size was only 60, and only inpatients were included. These limitations should be considered before generalizing from the results of our study.

The overall prevalence rate of 40% psychiatric morbidity among our cancer patients is similar to the 47% prevalence of DSM-III psychiatric disorders reported by Derogatis et al. (5). However, neither of these studies explored the relationship of psychiatric morbidity to factors such as duration of illness, time elapsed since diagnosis, disabilities due to the illness, nature and severity of cancer.

The prevalence rate of major depression in our sample was about twice that in the sample of Derogatis et al. (5). This difference may partly be the inclusion of only inpatients in our study, compared to a mixture of inpatients and outpatients in their study. Only one out of the 8 patients with major depression was formally referred for psychiatric evaluation by the oncology unit. Under-diagnosis of depression among cancer patients is common (9, 10). It has been noted that major depression in cancer patients requires psychopharmacological treatment, and that treatment of depression may bring about improvement in physical condition (11, 12).

The prevalence rate for all depressive disorders combined (major depression, dysthymic disorder, adjustment disorder with depressed mood and adjustment disorder with mixed emotional state) was 32% in our sample. Studies using standardized clinical interview in Indian settings, have reported a figure of around 15% for depressive disorders among medical inpatients (13). The prevalence rate of anxiety disorders (panic disorder and adjustment disorder with anxious mood) was 7% in our study. Depression and anxiety disorders together accounted for 92% of all psychiatric diagnoses. Our findings confirm the observation of Derogatis et al. (5) that depressive and anxiety disorders comprise the majority of psychiatric diagnoses in cancer patients.

The most common form of psychiatric disorder in our patients was adjustment disorder, which comprised 50% of all psychiatric diagnoses. A similarly high figure of adjustment disorder, comprising 68% of all psychiatric disorders, was reported by Derogatis et al. (5). This shows that a significant percentage of psychiatric conditions in cancer patients are reactive in nature. Adjustment disorders often respond to psychosocial intervention and positive changes in the patient's condition, and may not require prolonged

pharmacotherapy. Further studies are needed to investigate the implication of these minor psychiatric disorders and the course of adjustment disorders.

Of our patients, 33% were estimated to be unaware of the diagnosis of cancer, even though they were admitted to an oncology unit. Some of these patients may have been using the defence mechanism of denial. It is interesting to note that psychiatric morbidity was significantly lower in those who were 'unaware' of the diagnosis of cancer and had a more hopeful outlook on the outcome of treatment. There are inconclusive reports that the prognosis is better among certain cancer patients who reacted with 'denial' or a 'fighting spirit' than among those who responded with feelings of helplessness and hopelessness (14, 15).

In conclusion, although it might be easy to infer that psychiatric disorders are common among cancer patients, 60% of our patients had no psychiatric disorder. Nevertheless, depressive and other psychiatric disorders in cancer patients cannot be ignored as an understandable reaction to a life-threatening diagnosis. There is need for further studies of relationship between psychiatric morbidity and factors such as nature, type and stage of cancer, duration of illness, disabilities, and coping strategies. Attention should also be focused on the treatment of psychiatric disorders among cancer patients and the influence of treatment on quality of life, treatment compliance and prognosis.

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