Psychiatric disorder in a palliative care unit

Ita Durkin Shelton Hospital, Shrewsbury, M Kearney and L O’Siorain Our Lady’s Hospice, Dublin

Introduction: Studies have shown varying prevalence rates of psychiatric disorders in patients with terminal illness. On average it is expected that between 33 and 50% of this population will require psychological support. Despite this, up to 50% of psychiatric disorders remain unrecognized by medical and nursing personnel. The objectives of this study were to assess clinically the prevalence of psychiatric disorder occurring in the study population and to ascertain whether this disorder had been detected and treated prior to admission. Method: Following assessment of the patient, the presence or absence of a psychiatric diagnosis was determined according to the criteria laid down by the ICD-10 Diagnostic Criteria for Research. Results: One hundred and thirty-nine (62%) patients met ICD-10 diagnostic criteria for psychiatric disorder. Thirty-three (24%) patients had dual diagnoses. The commonest diagnoses were organic disorders followed by neurotic and stress-related disorders and depression (27%, 16% and 16%, respectively). One hundred and twenty-six (91%) patients with a psychiatric disorder had been symptomatic on admission. Of these, 35% were receiving incorrect or inadequate treatment. Conclusion: Almost two-thirds of the palliative care population studied had comorbid psychiatric illness. One-third of these disorders had not been identified or treated appropriately prior to admission. Future research needs to identify effective methods of detecting and diagnosing these disorders to enable early and efficient treatment programmes be initiated. Palliative Medicine 2003; 17: 212–218

Key words: hospice care; ICD-10 classification; palliative care unit; psychiatric disorder; psychological distress; terminal cancer

Introduction

In the treatment of physical illnesses, particularly at the terminal stage, consideration must be given to the emotional responses that occur in the patient. These responses may be severe enough to be not only incapacitating but to also fulfill criteria for a psychiatric disorder warranting further assessment and treatment. Studies have shown varying prevalence rates of psychiatric disorders in patients with cancer.1-5 These rates change depending on the stage of the illness and the level of disability.2,3,5-9 It can be expected that between 33 and 50% of patients with a terminal illness will require additional support and treatment.4 Despite this evidence, up to 50% of psychiatric disorders remain unrecognized by medical and nursing personnel.6,10 This may cause serious distress for the patient and their family, greatly affecting their quality of life.11

Screening tools can be used to detect patient distress, but accurate diagnosis of psychiatric disorder requires a structured clinical interview.12 These interviews are time consuming and may be difficult in this vulnerable population. While adjustment disorders are the commonest disorders in patients with early disease, organic disorders predominate in patients with terminal illness.1,3,5,8-10

In our palliative care unit (OLH, Dublin) patients’ distress was not formally given a psychiatric diagnosis, so the exact prevalence of these disorders was unknown. This study was therefore set up in order to record this rate. As the population consisted of patients with extensive diseases, it was felt a structured interview would be too exhausting. It was therefore decided to identify and diagnose psychiatric disorder where findings on clinical assessment met the guidelines laid down by the Diagnostic Criteria for Research (DCR-10).13 This is derived from chapter V (F), Mental and Behavioural Disorders of the International Statistical Classification of Diseases and Related Health problems (ICD-10).14 Its restrictive criteria tend to ‘maximise the homogeneity of groups of patients’.13

Objectives

1) To assess clinically the prevalence of psychiatric disorder occurring in the population as defined by the ICD-10 Diagnostic Criteria for Research.
2) To ascertain whether this disorder had been detected prior to admission.
3) To ascertain whether this disorder had been correctly treated prior to admission.

Method

Background

At the time of this study, the palliative care unit comprised two 18-bed wards. It provided care for patients with both neoplastic and immunodeficiency disorders admitted for symptomatic, respite and terminal care.

On admission, patients had their physical, psychological and social symptoms assessed. Examination of the patient also included an abbreviated minimental state examination to assess cognitive function. A problem list was then compiled, identifying symptoms and areas of concern. Finally, a treatment plan was constructed and put into operation. Each patient was reviewed at the biweekly multidisciplinary ward rounds. Psychiatric symptomatology and any unusual presentations of disease were highlighted and clarified by further assessment of the patient.

Patient management included medical, nursing and general supportive measures. Referrals for adjuvant treatment with physiotherapy, social work, occupational therapy, pastoral care, aromatherapy and reflexology were made where appropriate. More intensive psychotherapy or pharmacological interventions were provided when/where required.

Diagnosis of psychiatric disorder

Following each assessment, psychiatric diagnoses were made based on the clinical findings by the principal researcher (ID). The ICD-10 classification of psychiatric illness is composed of 10 different categories (see Table 1).

Many of these categories are self-explanatory. Adjustment disorders describe those clusters of symptoms or behaviours that can occur after exposure to an identifiable psychosocial stressor and which are variable in both form and severity. The predominant feature, such as depression, anxiety or other emotions, is further specified in the classification. Disorders in the categories F50–59, 80–89 and 90–98 were not relevant in this population and are not included. Furthermore, since a diagnosis of personality disorder relies on evidence of enduring and pervasive patterns of maladaptive behaviour across a broad range of personal and social situations, no new diagnoses were made.

Data collection

A data collection record was completed for each patient admitted into the palliative care unit over a six-month period. Demographic details including age, sex and marital status were recorded, along with details about medical diagnoses. Where symptoms of a psychiatric disorder were present, a record was made of its onset, course and any previous treatments.

Ethics approval

As this study principally recorded the diagnosis of psychiatric disorders based on usual clinical practice, the patient was not asked for individual written consent. No patient is recognizable from this data and no novel treatment programmes were initiated. This fulfilled the ethical guidelines for research at that time.

Results

Descriptive analysis

Two hundred and twenty-four patients were admitted during the six-month period of the study. Twenty-three patients who died within three days of admission did not undergo all of the diagnostic process. However, sufficient examination was possible to identify the presence of a comorbid psychiatric illness.

One hundred and thirty-nine (62%) patients met ICD-10 diagnostic criteria for psychiatric disorder. There was no significant difference between patients with a psychiatric disorder and those without with respect to age, sex, marital status or medical diagnosis. Demographic and medical data for those patients with psychiatric disorders are summarized in Table 2.

Psychiatric diagnoses

A single psychiatric disorder diagnosis was made for 106 (76%) patients, while 33 (24%) had dual diagnoses. This brought the total number of disorders diagnosed to 172. A further 12 (5%) patients reported or were known to have lifelong personality difficulties. However, they had not previously been diagnosed with personality disorder so were not included in the final total.
Prevalence rates according to ICD-10 diagnostic criteria

See Table 3.

**F00–09: organic, including symptomatic, mental disorders.** Sixty (27%) patients had disorders secondary to demonstrable organic aetiology. A total of 67 organic disorders were diagnosed during the study period as seven patients had dual diagnoses.

Delirium occurred in 43 (19%) patients, of which four (9%) were secondary to opioid intoxication. Fourteen (6%) patients suffered with a dementing illness. Five (36%) of these were due to an AIDS-defining condition and one (7%) was secondary to lifelong alcohol dependence. Other organic disorders gave rise to hallucinations, mood disturbance or personality change.

**F10–19: mental and behavioural disorders due to psychoactive substance use.** Nineteen (9%) patients were found to have psychiatric disorders secondary to alcohol or other psychoactive substances. In total, 22 disorders were diagnosed as four patients had comorbid depression.

**F20–29: schizophrenia, schizotypal and delusional disorders.** Three (1%) patients were diagnosed with delusional disorders. Two were suffering with schizophrenia and the third patient had persistent delusional disorder.

Overall, 16 (7%) patients exhibited psychotic symptoms on admission. The aetiology of these disorders included severe depression [four (24%)], opioid use [two (12%)] and organic disorders [seven (41%)].

**F30–39: mood (affective) disorders.** Twenty-eight (13%) patients were diagnosed with a depressive disorder. A past history of recurrent depressive disorder had been diagnosed for 20 (9%) patients, of which 11 (55%) were symptomatic on admission. When those patients with depression secondary to organic disorders or substance abuse were included, the total number of patients admitted with clinical depression was 35 (16%).

**F40–49: neurotic, stress-related and somatoform disorders.** Neurotic or stress-related disorders occurred in 36 (16%) patients. Adjustment disorders were diagnosed in 21 (9%) patients. Acute stress reactions occurred in four (2%). Nine (4%) patients had long-standing generalized anxiety disorder. One patient was receiving treatment for obsessive-compulsive disorder and another for panic disorder.

**F60–69: disorders of adult personality and behaviour.** Five (2.2%) patients were included in this category and all had been under the care of the psychiatric services for some time.

**F70–79: mental retardation.** Two (1%) patients suffered from learning disability.

Table 4 shows the breakdown of these psychiatric categories.

Prevalence of psychiatric disorder according to medical diagnosis

The prevalence of psychiatric disorders varied according to the underlying medical illness (see Table 5). Of note, all of the patients admitted with AIDS and oropharyngeal tumours had comorbid psychiatric disorders. Other cancers with high rates of comorbid psychiatric illness

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### Table 2
Demographic details for patients with a psychiatric disorder

<table>
<thead>
<tr>
<th>n=139</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>Mean 66, SD 14.2</td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td>22–90</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>Male 72, 52</td>
<td></td>
</tr>
<tr>
<td>Female 67, 48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td>Married 63, 45</td>
<td></td>
</tr>
<tr>
<td>Single 31, 22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Widowed 38, 27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Separated/divorced 7, 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnosis</td>
<td>AIDS 11, 8</td>
<td></td>
</tr>
<tr>
<td>Cancer 128, 92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lung 29, 21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breast 24, 17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prostate 16, 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colon 16, 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brain 8, 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unknown primary 5, 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others 30, 22</td>
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<td></td>
</tr>
</tbody>
</table>

### Table 3
Prevalence of psychiatric disorder according to ICD-10 classification

<table>
<thead>
<tr>
<th>ICD-10 diagnosis (n=224)</th>
<th>Total number of points</th>
<th>% population</th>
</tr>
</thead>
<tbody>
<tr>
<td>F00–09: organic disorders</td>
<td>60</td>
<td>27</td>
</tr>
<tr>
<td>Delirium</td>
<td>43</td>
<td>19</td>
</tr>
<tr>
<td>Dementia</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>F10–19: disorders due to psychoactive substance use</td>
<td>19</td>
<td>9</td>
</tr>
<tr>
<td>F20–29: schizophrenia, and delusional disorders</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Total number with psychotic symptoms</td>
<td>16</td>
<td>7</td>
</tr>
<tr>
<td>F32+33: depressive disorder</td>
<td>28</td>
<td>13</td>
</tr>
<tr>
<td>Total number with clinical depression</td>
<td>35</td>
<td>16</td>
</tr>
<tr>
<td>F40–44: neurotic- and stress-related disorders</td>
<td>36</td>
<td>16</td>
</tr>
<tr>
<td>F60: specific personality disorders</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>F71: mental retardation</td>
<td>2</td>
<td>1</td>
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</table>
included prostate, breast and brain (80%, 75% and 73%, respectively).

In addition, some medical illnesses had disproportionate rates of some psychiatric illnesses, e.g., 45% of patients with AIDS had dementia and high rates of depression were present in patients with breast and oropharyngeal cancer and AIDS (34%, 29% and 27%, respectively).

**Past experience**

Of the 139 patients who were diagnosed with a psychiatric disorder, 126 (91%) had been symptomatic on admission. As dual diagnoses occurred in 24% of patients, a total of 154 disorders were present on admission. All patients had been under active medical care either by hospital doctors or their general practitioners prior to admission. Despite this, 35 (23%) of these disorders had not been identified and were therefore untreated. These included organic disorders in 17 (48%), adjustment disorders in nine (26%) and depression in nine (26%).

A further 15 (10%) disorders were later judged not to have received the correct treatment. Five patients suffering from depression had been incorrectly diagnosed with an anxiety disorder and were being treated solely with anxiolytics. In total, 35% of those patients admitted with a psychiatric disorder was either not receiving treatment for their disorder or were receiving inappropriate treatments.

Disorders occurring during admission

Eighteen (11%) disorders became apparent during the admission. The commonest diagnoses included delirium (five), depression (four) and stress reactions (four). The remaining disorders included psychotic reactions due to steroids or opioids (three).

**Management**

All patients were referred for adjuvant therapy with physiotherapy, occupational therapy, aromatherapy, reflexology or social work involvement where required.

Sixteen (12%) patients did not require any pharmacological intervention for their psychiatric disorder. Fifty-six per cent had new or additional medication prescribed. In total, 45 (32%) patients with a psychiatric diagnosis were treated with antidepressant medication. The most commonly prescribed class was the selective serotonin reuptake inhibitors. Benzodiazepines were prescribed for 91 (66%) patients and a major tranquilizer, such as haloperidol or chlorpromazine, for 57 (41%). This sedative medication was mainly prescribed on a ‘as required’ basis, with few patients requiring regular doses.

**Discussion**

**Prevalence of psychiatric disorder**

The objectives of this study were to explore clinically the prevalence of psychiatric disorder in the palliative care unit and to ascertain whether patients were receiving correct treatment prior to admission.

As already stated, studies have shown varying rates of psychiatric disorder in patients with cancer depending on the stage and severity of the cancer and the method used for its detection. In patients with terminal illnesses, organic disorders predominate with rates as high as 85% detected. Overall, the rates for depression and anxiety do not fluctuate much over the course of the illness. Overall one would expect one in four to have a clinical depression and approximately one in 10 to have significant anxiety levels. Hardman found 29% of oncology

<table>
<thead>
<tr>
<th>Diagnoses (n = 224)</th>
<th>All psychiatric diagnoses (%)</th>
<th>Delirium (%)</th>
<th>Dementia (%)</th>
<th>Disorders secondary to substance abuse (%)</th>
<th>Depression (%)</th>
<th>‘Neurotic’ disorders (%)</th>
<th>Psychotic disorders (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDS (11)</td>
<td>100</td>
<td>0</td>
<td>45</td>
<td>73</td>
<td>27</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>Lung cancer (50)</td>
<td>58</td>
<td>20</td>
<td>2</td>
<td>6</td>
<td>16</td>
<td>20</td>
<td>8</td>
</tr>
<tr>
<td>Breast cancer (32)</td>
<td>75</td>
<td>13</td>
<td>0</td>
<td>3</td>
<td>34</td>
<td>16</td>
<td>16</td>
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<tr>
<td>Bowel cancer (32)</td>
<td>47</td>
<td>16</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>19</td>
<td>3</td>
</tr>
<tr>
<td>Prostate cancer (20)</td>
<td>80</td>
<td>50</td>
<td>10</td>
<td>15</td>
<td>5</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>Brain tumour (11)</td>
<td>73</td>
<td>45</td>
<td>0</td>
<td>0</td>
<td>18</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>Oropharyngeal tumours (7)</td>
<td>100</td>
<td>0</td>
<td>29</td>
<td>29</td>
<td>29</td>
<td>29</td>
<td>14</td>
</tr>
<tr>
<td>Unknown primary (8)</td>
<td>63</td>
<td>13</td>
<td>13</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Others (53)</td>
<td>45</td>
<td>17</td>
<td>2</td>
<td>0</td>
<td>11</td>
<td>13</td>
<td>2</td>
</tr>
</tbody>
</table>
inpatients had a comorbid psychiatric illness. In Dero-gatis’ study of a cancer population with Karnofsky performance scores of 50 and over (i.e., still independent), 47% also had a psychiatric disorder according to DSM-III criteria at formal psychiatric interview. In a terminally ill population, Minagawa reported that 53.7% had a psychiatric diagnosis according to DSM-III R criteria using a structured clinical interview. Delirium and dementia occurred most frequently (28% and 10.7%, respectively). Depression and adjustment disorders accounted for only 10% (3.2% and 7.5%, respectively).

In the present study, as more diagnostic categories were included, the overall prevalence rate of 62% is higher than in other studies. As expected, organic disorders predominated, though they were only diagnosed in 27% of the population as compared with the wide range found in other studies. Delirium itself accounted for 19%, which is lower than in Minagawa’s study, as was the rate of dementing illness. The total rate for depressive illness at 16% falls within the ranges identified by other studies, as does the rates for anxiety disorders.

Limitations of this study
The diagnoses were based on clinical assessment using research criteria instead of a formal standardized psychiatric interview. The DCR proved easy to use but was not tested for reliability and so may have led to some bias in the results. For example, while disorders relating to substance abuse were routinely enquired about, they required patient disclosure or clinical symptoms to be detected. It is likely that some disorders in this category were missed. Patient denial may also have accounted for some disorders being missed but denial was not confronted unless the patient indicated a readiness to relinquish it or unless anxiety was clearly showing through. The diagnosis of depression in a medically ill population is complicated, as the presence of physical symptomatology may be secondary to the underlying medical disorder and not the psychiatric illness. This may have led to higher rates being detected than were actually present.

Previous diagnosis and treatment
In this study, 65% of patients had their disorders detected and treated prior to admission. Yet many of these disorders were not mentioned in the application form or even in the transfer letter. Indeed, more than 50% of these disorders were only inferred from the accompanying prescriptions.

In general hospitals, the focus of care is obviously on the patients’ physical condition and their psychological distress may be overlooked. Patients may not bring these emotions to the attention of the staff for a variety of reasons, such as fear that they are ‘losing their mind’ or are ‘going insane’ or that nothing else can be done.

Kubler-Ross’s stages of dying are widely taught in medical schools and may be misused by doctors as a prescription for dying. The patients are expected to pass from one stage to another in sequence. Those who express symptoms suggestive of a depressive illness may therefore be expected after an interval to progress into the acceptance stage without the need for additional support or treatment. This leads to poor recognition, diagnosis and treatment of psychiatric in the general hospital. In Hardman’s study in a medical oncology ward only 49% of those patients with depression were correctly identified. Seventy-nine per cent of patients with comorbid anxiety were recognized because staff expected the patient ‘to feel this way’.

In the present study, 35% of patients admitted with a psychiatric disorder had either not been diagnosed or were not being treated appropriately prior to admission. Of those undiagnosed and untreated (35 disorders), approximately two-thirds were due to an organic condition (mainly delirium), which required urgent treatment. Fifteen patients receiving treatment on admission had this changed later to more appropriate treatment. This included five patients with depression who were being treated with benzodiazepines alone. Three patients with a history of recurrent depressive disorder had their maintenance treatment discontinued during their last hospital admission and two subsequently relapsed. For 11% of patients who were suffering from acute stress reactions or adjustment reactions, the precipitating stressors most commonly identified was the disclosure of their diagnosis, prognosis or imminent transfer to the palliative care unit. The distress experienced by these patients could have been avoided or greatly reduced if detected earlier and treated appropriately.

Management
Studies show that psychopharmacology and psychotherapy can be effective in reducing patients distress, improving their quality of life and may also play a role in prolonging survival. Ideally, the best approach for reducing the patients distress is a combination of supportive psychotherapy, pharmacology and patient and family education.

The range of therapeutic options available in the unit at the time of this study included counselling, supportive psychotherapy, psychopharmacological and family intervention. More formal psychological interventions, such as cognitive therapy or psychodynamic psychotherapy, were not available within the unit.

It was found that 88.5% of the patients with comorbid psychiatric illness required psychotropic medications. Almost one-third of these patients received antidepressant medications. While only 16% had been diagnosed with clinical depression, these medications were also used to treat anxiety disorders, insomnia and to augment
analgesics. Overall, the most commonly prescribed psychotropic drugs were benzodiazepines and major tranquilizers, such as haloperidol and chlorpromazine. However, these were prescribed on a ‘as required’ basis mostly, with few people requiring regular maintenance doses.

Implications for psychosocial services
Providing good palliative care requires a holistic approach to patient care. All distress, whether physical or psychological, needs to be detected, assessed and diagnosed as quickly as possible. Appropriate treatment plans need to be in place for each disorder and clear referral pathways to the most appropriate psychosocial service need to be available and accessible. For approximately 50% of this population, multidisciplinary psychosocial support may be required with more specialized treatment, such as psychopharmacology and psychotherapy required in up to 20%.

The open nature of the ward rounds in the palliative care unit allowed for detailed discussion about each patient’s distress and how best to manage it. Most staff members were aware of the possibility of comorbid psychiatric illness but did not feel confident enough to diagnose it. Staff education programmes have been shown to cause a dramatic improvement in the recognition rate of these disorders and should be available for the entire multidisciplinary team.

Conclusion
This study population comprised of patients admitted for respite care, symptom control and end-stage terminal disease, and may therefore not represent all hospice or terminally ill populations. It was found that 62% of the population clinically had comorbid psychiatric illness. Disappointingly, one-third of these disorders had not been identified or treated appropriately prior to admission. Early diagnosis and treatment can reduce distress and may influence the patient’s physical illness. Continued education of the medical and nursing staff may help improve the rate of recognition of these disorders.

Using the DCR-10 made it easy to diagnose the patient’s symptoms though it was not tested for reliability here. Future research needs to identify ways of detecting and diagnosing these disorders accurately without burdening the patient.

Appropriate psychosocial interventions relieve these symptoms and can enhance the patient’s quality of life. It is essential that this is provided by palliative care. Referral for more specialized psychological treatment needs to be readily accessible. Future research needs also to concentrate on finding the most efficient and patient-friendly treatments for use in this population.

References


