Physicians' perceptions of anxiety and depression among their outpatients: relationships with patients and doctors' satisfaction with their interviews

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Accurate perception and understanding of the patient's emotional state is an important component in effective clinical management. Several potential barriers to the adequate understanding by doctors of their patients' feelings have been described [1-12]. For example, denial may be used as a means of coping with a wide variety of physical illnesses such as cancer [1,2], myocardial infarction [3] and chronic renal failure [4]. This strategy, while often effective [5-7], makes the acknowledgement of feelings more difficult. Physicians may resort to a variety of tactics which serve to distance them from their patients' distress [8,9], to the extent that encounters with patients may become almost ritualised [10]. Having to give bad news may affect both patient and doctor [11]. Such difficulties in communication and understanding may contribute to the dissatisfaction which some patients with cancer or other physical illnesses express regarding their outpatient interviews [12].

This study aimed to assess the sensitivity of physicians in an oncology clinic to their patients' anxiety and depression and to examine some factors likely to influence patients' emotional states and their doctors' perceptions of these. The factors included whether the patient had active disease or was in remission, and whether the patient was on active treatment. We also attempted to test the hypothesis that doctors would be less satisfied with those interviews about which the patients independently expressed dissatisfaction than with their other interviews. Patients seen at the end of a clinic have a longer wait than those seen earlier and the end of each clinic usually runs into the lunch period. We thought it likely that both patients and doctors would be less satisfied with interviews at the end of a clinic than with earlier appointments, a factor of some importance in planning outpatient clinics.

The medical oncologists who participated in this study had received no special training in the assessment of their patients' emotional states. In this respect, their formal training resembled that of other physicians, and the results of the study can therefore be taken to reflect the ability of physicians more generally to detect emotional disturbance in their patients. Our results are discussed in the context of previous studies which have been critical of the ability of physicians to gauge their patients' emotions.

Methods

The Medical Oncology Clinic at the Charing Cross Hospital provides a regional oncology service for patients with a wide variety of neoplastic diseases. All consecutive follow-up patients attending the clinic during a 3-week period were invited by a research worker (rather than someone regularly seeing patients in the clinic) to participate in the study. Those attending the clinic for the first time were excluded. Patients were told that the study would best help staff to meet the needs of those who attended the clinic. Each patient was assigned a study number to allow the research worker to identify questionnaires, which remained anonymous to the clinical team. All patients who participated in the study completed the Hospital Anxiety and Depression (HAD) scale [13] while waiting for their clinic appointments. Unlike most other anxiety or depression rating scales, the HAD scale has no
items relating to somatic symptoms which may be due to physical illness even in the absence of clinical anxiety or depression. The HAD scale yields scores for severity of anxiety and depression during the preceding week (from 0 to 21, with 0 being absent anxiety or depression).

After the interview with the doctor, each patient was asked to complete a further questionnaire which included items relating to changes in tension, anxiety and depression as a result of the interview. The format was designed to be similar to that of the HAD scale. A sample item was ‘As a result of the interview I’ve just had, I feel: much more tense than before/a little more tense than before/as tense as before/a little less tense than before/much less tense than before/I do not feel at all tense.’ Additional questions were ‘Do you think your doctor appreciated how you felt during your interview?’ (possible responses were: No, not at all/yes, but not very well/quite well/very well) and ‘Were there things you wanted to ask or say at your interview but couldn’t?’ Patients were invited to write down any further comments they wished to make.

The oncologists rated each patient after the interview for anxiety and depression and also rated their overall satisfaction with each interview. Visual analogue scales (with anchor points at their extremes) were used for all these ratings. The doctors also indicated whether each patient had active disease, was receiving active treatment and whether they had given the patient good or bad news. The time of the patient’s interview was also recorded. The doctors were unaware of the patients’ ratings, and patients were not aware that their doctors were rating them. The oncologists’ visual analogue ratings were all similar in distribution but the means of the ratings varied from one doctor to another. This is a recognised property of visual analogue scores, due to individual scaling of the line on which ratings are made [14]. The oncologists participating in the study did not consider that patients seen by one of their number were likely to be more anxious or depressed than those seen by the others, nor was there any reason to believe that this should be so. The between-rater sensitivity of visual analogue ratings can be enhanced by appropriate transformation of each rater’s scores [14]. Accordingly, each doctor’s visual analogue ratings were converted to Z-scores. This is a standard transformation [15] which gives each set of data (oncologist A’s ratings of anxiety, oncologist B’s rating of depression etc) a mean of zero and a standard deviation of 1.0.

Statistical analysis included calculation of 95% confidence intervals (95% CI) wherever possible, in addition to probability values [16,17].

Results

A total of 149 patients took part in the study; 38 who were eligible, declined to do so. No differences were evident between those who refused and the rest of the sample on any of the items rated in the doctors’ questionnaire. At the time of assessment, 57 patients (38%) were on active treatment (chemotherapy or radiotherapy) and 56 patients (37%) had active disease. Sixty four patients (43%) were in remission and not receiving active treatment.

Six medical oncologists participated in the study, three consultants, two senior registrars and a registrar.

HAD scale results

Table 1 shows the HAD scores of the sample, using the conventional cut-off point for possible (score >8) and probable (score >10) clinical ‘cases’ of anxiety or depression [13]. On this basis, 15% of the sample were probably clinically anxious and only 7% probable cases of depression.

Factors influencing HAD scores

The groups of patients on active treatment or with active disease had higher mean HAD depression scores than the rest of the sample, as reported by others [18]. However, as with similar data relying on mean ratings [19–21], such results are misleading, because both anxiety and depression scores followed a skewed distribution. Having active disease and receiving active treatment (group C in Table 2) was associated with higher HAD depression ratings than being without active disease and not having active treatment (group A) (median HAD depression scores were 2 and 4 respectively; Mann-Whitney U test, p = 0.01; 95% CI for the difference between these medians = 0.5 to 3.6).

There was no significant relationship between having active disease and/or being on active treatment and patients’ HAD anxiety scores.

Effects of the interview on patients

Few patients reported themselves more tense, anxious or depressed as a result of their outpatient interviews (Table 1).
In most cases, patients reported either no tension, anxiety or depression, or less than before their interviews. Of the sample, 93% reported feeling that their doctor had appreciated either very well or quite well how they felt. Only 6 patients (4%) indicated that they had been unable to ask questions or say things they had wanted to raise with their doctor. Those patients who either felt that their doctor had not appreciated how they felt or had been unable to say something which they had wanted to say were classed as 'dissatisfied' with their interviews (8% of the total sample).

Factors influencing patients' assessment of their interviews

Patients who felt worse after their interviews (more tense, anxious or depressed than before) were much more likely than others to have been given bad news during their interview (Table 4). By contrast, giving good news had no significant effect on how the patients reported feeling afterwards. Feeling worse after the interview was not related to whether or not the patients had active disease or were on active treatment, nor was this influenced by the time of the interview or by the particular doctor seen.

Relationships between patients' self-ratings and doctors' mood assessments

The doctors' depression ratings were significantly correlated with their patients' HAD depression scores (Table 5). Similarly, there was a significant association between doctors' and patients' anxiety ratings. Patients with higher HAD depression scores tended to be rated by the oncologists as more anxious and depressed.

Factors influencing doctors' ratings of mood

These are shown in Fig.1. Because all the oncologists' ratings had been transformed to Z scores, the overall mean ratings of anxiety, depression and satisfaction with the interviews were all zero. A negative score on one of the scales in Fig.1 for any particular subgroup indicates that the oncologists' ratings for that particular subgroup were low relative to the whole sample. Conversely, a positive rating for any subgroup on the anxiety scale indicates that the oncologists rated this subgroup more anxious than the sample as a whole. Oncologists' mean ratings for each pair of patient subgroups (eg patients with or without active disease) were compared using 2-sample t tests.

Patients given bad news during the interview were rated by their doctors as very much more anxious (but not significantly more depressed) than the other patients (Fig.1). Patients who rated themselves as more tense or anxious after the interview than before were rated by their doctors as significantly more anxious than the other patients.

The oncologists rated patients with active disease as more depressed and anxious than those without active disease (Fig.1). Similarly, patients on active treatment tended to be rated by the oncologists as more anxious and depressed than patients not receiving active treatment.

Doctors' satisfaction with their interviews

The doctors' ratings of overall satisfaction with their interviews were inversely correlated with their own ratings of their patients' depression (Pearson's r = −0.298, \( p < 0.001; 95\% \text{ CI for slope, } b = −0.454 \text{ to } −0.142\) and anxiety (\( r = −0.251, \ p < 0.01; 95\% \text{ CI for } b = −0.441 \text{ to } −0.091\)) and also with the patients' HAD depression scores (Table 5). Doctors rated interviews in which they gave bad news less satisfying than those in which they did not (Fig.1). Interviews after which patients rated themselves as more depressed also scored much lower satisfaction ratings from the doctors than the other interviews (Fig.1: \( p = 0.04, 2\text{-sample t test}; 95\% \text{ CI for difference between means } = 0.1 \text{ to } 1.3\) ). The doctors' satisfaction
ratings were negatively correlated with the times of the patients' appointments—the later in the clinic a patient was seen, the less satisfied the doctor was likely to be with the interview (Pearson's $r = -0.227; p = 0.004; 95\%$ CI for $b = -0.397$ to $-0.075$). Patients seen later in the day did not differ from others in the sample in terms of the proportions with active disease, being on active treatment, or given bad news during their interviews. Whether or not the patients had active disease or were receiving active treatment showed no associations with doctors' satisfaction ratings. Interviews with which the patients were dissatisfied also scored lower satisfaction ratings from the doctors than the rest of the interviews (mean scores were $-0.55$ and $+0.48$ respectively; $p = 0.04$, 2-sample t test; $95\%$ CI for difference between means 0.02 to 1.17).

Discussion

In this sample of oncology outpatients, the estimated prevalence of depression was 7% and that of anxiety 15%, using the conventional cut-off scores for the HAD scale [13]. These prevalence figures can only be estimates, as true prevalence can only be ascertained by interview methods. Symptoms of depression were more frequent in patients with active disease receiving active treatment than in patients in remission and not receiving active treatment. Increased rates of emotional disturbance have been noted previously accompanying radiotherapy [18-22] or chemotherapy [23-26] although some prospective studies have failed to find such effects [27,28], possibly for the reasons outlined below. Few patients felt more tense, anxious or depressed after their interviews than they had done beforehand and only 8% were classified as dissatisfied, on the basis that they felt that their doctor did not appreciate how they felt during their interview or that they had something to say during the interview but were not able to do so.

These results are more reassuring than others previously reported, both in terms of the lower prevalence of anxiety and depression [28-34] and patients' reported satisfaction with their interviews. For example, Lloyd and his colleagues reported that 35% of a group of patients with lymphomas were dissatisfied with their communications with medical staff [27] and a more recent study [35] found that 30% of a British sample of oncology outpatients felt that their doctors had insufficient time to talk to them. Similarly high levels of dissatisfaction have been reported among patients with other types of physical illness [12].

Wide differences in prevalence rates of affective disturbance have been reported in patients with physical illness. Two important factors contributing to such differences are the source of the patient sample and the method of ascertainment of depression or anxiety. Among patients with cancer, for example, patients admitted for active treatment to a research unit [29] might be expected to have higher rates of affective disturbance than outpatients in remission. In some patient groups, the prevalence of depression diminishes with time after diagnosis and initial treatment [28,34]. In the present study, 43% of the sample, all outpatients, were in remission and receiving no active treatment. Nevertheless, our results indicate that high rates of depression or anxiety are not inevitably found in patients with cancer.

Most previous studies of depression and anxiety in medical patients have used rating measures emphasising somatic symptoms such as insomnia, anorexia and weight
loss which are common in physical illness even without mood disturbance [36,37], and are thus likely to overestimate the prevalence of anxiety and depression. The HAD scale, designed to assess anxiety and depression in physically ill patients [12,13] and validated in such patient groups [38], would be expected to yield more conservative and also more accurate estimates of prevalence.

In this study, the only variable which significantly influenced how outpatients felt after their interviews was being given bad news by the doctor. This is hardly surprising, although it is interesting that being given good news during the interview apparently had little effect on patients—being given good news did not make it more likely that a patient would feel less anxious, tense or depressed afterwards (Table 4).

The correlations between doctors’ and patients’ ratings of anxiety and depression, though quite modest, are significant (Table 5). In fact, these correlations underestimate the medical oncologists’ abilities to assess their patients’ mood. Patients completed their HAD questionnaires before their interviews, while the doctors based their ratings on their assessments during the interviews—these ratings were influenced not only by their perceptions of their patients at the start of the interviews but also by what happened during them. The interviews were more likely to produce a change in patients’ anxiety or tension than in feelings of depression (Table 3). This is likely to be one reason why the relationship between patients’ and oncologists’ ratings was weaker for anxiety than for depression (Table 5). Compared with the sample as a whole, patients who rated themselves as more tense or anxious after their interviews were given significantly higher ratings of anxiety (but not of depression) by the doctors (Fig.1). Patients given bad news were not only more likely to rate themselves as more anxious or tense afterwards, but were also rated by the doctors as significantly more anxious than the other patients. The oncologists were least satisfied with those interviews after which the patients reported themselves more depressed than beforehand (Fig.1). Doctors were also much less satisfied with interviews about which the patient independently expressed dissatisfaction. As predicted, interviews later in the day were rated by the oncologists as less satisfactory than those with patients seen earlier in the clinic. However, it is interesting that doctors’ relative dissatisfaction with their later interviews was not echoed by the patients.

Despite such positive findings, there is also some evidence of systematic bias in the oncologists’ assessments of their patients’ affective states. For example, patients on active treatment or with active disease had more depressive symptoms than those in remission (and were rated as more depressed by the oncologists) but did not rate themselves as particularly anxious, nor were they likely to become so as a result of their interviews. However, they were perceived as anxious by the doctors (Fig.1). Such sources of bias will be examined in detail elsewhere (manuscript in preparation).

Previous investigations, involving patients with cancer [39,40] as well as other patient groups, including general medical inpatients [41], medical outpatients [42] and neurology inpatients [43], have presented a less encourag-
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References

1. Weisman, A. D. and Worden, J. W. (1976). International Journal of Psychiatry in Medicine, 7, 1.
2. Kneier, A. W. and Temoshok, L. (1984). Journal of Psychosomatic Research, 28, 145.
3. Hackett, T. P. and Cassem, N. H. (1968). New England Journal of Medicine, 279, 1356.
4. Short, M. and Wilson, W. (1969). Archives of General Psychiatry, 20, 433.
5. Norton, C. (1969). Annals of the New York Academy of Sciences, 164, 720.
6. Greer, S., Morris, T. and Pettingale, K. W. (1979). Lancet, ii, 785.
7. Shaw, R. E., Cohen, P., Doyle, B. and Palesky, J. (1985). Psychosomatic Medicine, 47, 262.
8. Maguire, P. (1984). International Review of Applied Psychology, 33, 479.
9. Maguire, P. (1985). British Medical Journal, 291, 1711.
10. Quint, J. C. (1965). Psychiatry, 28, 120.
11. Buckman, R. (1984). British Medical Journal, 288, 1597.
12. Ley, P. (1982). British Journal of Clinical Psychology, 21, 241.
13. Zigmond, A.S. and Snaith, R. P. (1983). Acta Psychiatrica Scandinavica, 67, 361.
14. Maxwell, C. (1978). British Journal of Clinical Pharmacology, 6, 15.
15. Colton, T. (1974). Statistics in medicine. Boston: Little, Brown & Co.
16. Bulpett, C. J. (1987). Lancet, 1, 494.
17. Langman, M. J. S. (1987). British Medical Journal, 292, 716.
18. Forester, B., Kornfeld, D. S. and Fleiss, L. (1985). American Journal of Psychiatry, 142, 22.
19. Derogatis, L.R., Abeloff, M. D. and Melisaratos, N. (1979). Journal of the American Medical Association, 242, 1504.
20. Schain, W. S., Wellisch, D. K., Pasnau, R. O. and Landsverk, J. (1985). American Journal of Psychiatry, 142, 40.
21. Robinson, J. K., Boshier, M. L., Dansak, D. A. and Peterson, K. J. (1983). Journal of Psychosomatic Research, 29, 133.
22. Peck, A. and Boland, J. (1977). Cancer, 40, 180.
23. Maguire, P., Tait, A., Brooke, M. et al. (1980). British Medical Journal, 281, 1179.
24. Nerenz, D. R., Leventhal, L. H. and Love, R. R. (1982). Cancer, 50, 1020.
25. Brinkley, D. (1983). British Medical Journal, 286, 663.
26. Goldberg, R. J. and Cullen, L. O. (1985). Social Science and Medicine, 20, 803.
27. Lloyd, G. G., Parker, A. C., Ludlam, C. A. and McGuire, R. J. (1984). Journal of Psychosomatic Research, 28, 157.
28. Hughes, J. E. (1985). British Journal of Surgical Oncology, 11, 21.
29. Craig, T. J. and Abeloff, M. D. (1974). American Journal of Psychiatry, 131, 1325.
30. Plumb, M. M. and Holland, J. (1977). Psychosomatic Medicine, 39, 264.
31. Levine, P. M., Silberfarb, P. M. and Lipowski, Z. J. (1978). Cancer, 42, 1385.
32. Derogatis, L. R., Morrow, G. R., Fetting, J. et al. (1983). Journal of the American Medical Association, 249, 751.
33. Bukberg, J., Penman, D. and Holland, J. C. (1984). Psychosomatic Medicine, 46, 199.
34. Devlen, J., Maguire, P., Phillips, P., Growther, D. and Chambers, H. (1987). British Medical Journal, 295, 933.
35. Newell, D. J., Gadd, E. M. and Priestman, T. J. (1987). British Journal of Medical Psychology, 60, 127.
36. Schwab, J. J., Bailow, M., Brown, J. M. and Holzer, C. E. (1967). Annals of Internal Medicine, 67, 695.
37. Kathol, R. G. and Petty, F. (1981). Journal of Affective Diseases, 3, 111.
38. Aylard, P. R., Gooding, J. H., McKenna, P. J. and Snaith, R. P. (1987). Journal of Psychosomatic Research, 31, 261.
39. Derogatis, L. R., Abeloff, M. D. and McBeth, C. D. (1976). Psychosomatics, 17, 197.
40. Maguire, P., Lee, E. G., Bevington, D. J., Kuchemann, C. S., Crabtree, R. J. and Cornell, C. E. (1978). British Medical Journal, i, 963.
41. Maguire, G. P., Julier, D. L., Hawton, K. E. and Bancroft, J. H. J. (1974). British Medical Journal, i, 269.
42. Brody, D. S. (1980). Archives of Internal Medicine, 140, 1286.
43. Bridges, K. W. and Goldberg, D. P. (1984). British Medical Journal, 289, 656.
44. Williams, P., Tarnopolsky, A. and Hand, D. (1980). Psychological Medicine, 10, 101.
45. Sensky, T. (1986). British Journal of Psychiatry, 148, 151.
46. Mayou, R. and Hawton, K. (1986). British Journal of Psychiatry, 149, 172.
47. Sensky, T., Cundy, T., Greer, S. and Pettingale, K. W. (1985). Journal of the Royal Society of Medicine, 78, 463.
48. Schwabert, D. S. P., Gabinet, L., Frietschon, W., Miller, S. and Bilowitz, A. (1978). International Journal of Psychiatry in Medicine, 9, 319.
49. Lloyd, G. G. and Cawley, R. H. (1983). British Journal of Psychiatry, 142, 120.
50. Sensky, T. (1985). General Hospital Psychiatry, 7, 272.
51. Mezey, A. G. and Kellett, J. M. (1971). Postgraduate Medical Journal, 47, 315.
52. Maguire, P. (1985). Social Science and Medicine, 20, 819.
53. Davenport, S., Goldberg, D. and Millar, T. (1987). Lancet, ii, 439.