Assessing Psychological Status of Cancer Patients Using the HAD Scale: a Pilot Study.

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Objectives: To establish the acceptability and utility of the HAD Scale in the assessment of psychological status manifested as depression and/or anxiety among cancer patients.

Setting: Oncology outpatient Clinic at Salmaniya Medical Complex in Bahrain.

Materials and Methods: A cross-sectional Pilot study was conducted on 25 patients (Males & Females) suffering from various types and stages of cancer attending the outpatient Clinic. Hospital Anxiety and Depression Scale (HAD), a self- assessment questionnaire, has been used for the study.

Results: Three (12%) of the total number scored significantly high on the depression sub-scale (Mean score 12.4), all of them were females and five (20%) of the total number scored high on anxiety sub-scale (Mean score 13.6) again all were females. Three of the total 5 positive cases scored high on both depression and anxiety sub-scales (60%).

Conclusion: HAD Scale is a reliable method for early assessment of a patient's psychological state before referral to a definite diagnosis and management by a psychiatrist. It can also be used as on-going method of assessing response to treatment

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There are many physicians who consider that depression and anxiety are to be expected in association with cancer and that these "normal" reactions do not therefore merit treatment. The quality of life of many emotionally depressed patients can be greatly improved if they are recognized and referred for help from an interested psychiatrist who may embark on a course of psychotherapy, supplemented with anti-depressant and/or anxiolytic drugs.

In a review; about half of all cancer patients suffer from psychiatric disorders[1]. The majority have adjustment disorders (70%), depressive illness (15%), or delirium (5-10%). On the long term, depression and anxiety including panic disorders, phobias and abnormal reaction to stress are the most disabling disorders and may cause a significant disturbance in patient's functioning and cooperation during the treatment. The aetiology of these disorders is usually a combination of psychological response to the serious illness, tumour effect and also side-effect of medications[2]. We should not ignore always the possibility of exacerbation of pre-existing psychiatric disorders that may even continue after complete cure of this major physical illness.

In a randomized controlled clinical trial of treatment for early breast cancer, 101 women were interviewed and had filled HAD self-assessment questionnaires. The results show that the incidence of depression and/or anxiety among women who underwent mastectomy was rather high (33%)[3,5]. Surprisingly, more women who underwent lumpectomy followed by radiotherapy have experienced more depression and/or anxiety (38%). It is important to ensure that any psychological problem experienced by patients are recognized and further more treated promptly and appropriately[3].

Few of the currently available psychometric tools to measure quality of life achieve more than superficial assessment of an individual's psychological status[4]. Clinicians rarely make adequate judgment about the impact that treatment has on a patient's psychological functioning. For example, Maguire et al (1978) claimed that 80% of clinically depressed or anxious patients post-mastectomy go unrecognized by their surgeons[6].

Based on the above facts, we decided to conduct this study to establish the acceptability of the HAD scale and the utility of this scale in assessment of psychological status of cancer patients manifested as depression or anxiety.

The Hospital Anxiety and Depression (HAD) Scale **(figure 1)** was developed by Zigmond and Snaith (1983)[7] specifically for use with physically sick populations.

Figure 1: Part of The Hospital Anxiety & Depression Scale (HAD), developed by Zigmond & Snaith (1983).

HAD Scale

Name……………………………………………date……………………………………
………………..

I feel tense or "wound Up":
  most of the time
   a lot of the time
   time to time, occasionally
   not at all

Doctors are aware that emotions play an important part in most illness. If your doctor knows about these feelings he will be able to help you more.

I still enjoy the things I used to enjoy:

  definitely as much

  not quite so much

  only a little

  hardly at all

This questionnaire is designed to help your doctor to know how you feel. Read each item and place a firm tick in the box opposite the replay which comes closest to how you have been feeling in the past week

I still a sort of frightened feeling as if Something awful is about to happen:
   very definitely and quite badly
   yes, but not too badly
   a little, but it doesn't worry me
   not al all

Don't take too long over your replies: your immediate reaction to each item will probably be more accurate than a long thought- Out response.

I can laugh and see the funny side of things:

  as much as   I always could
  not quite So much now
  definitely not so much   now
  not at all

(Anxiety and depression Questions are placed Alternately and scored from 0-3,the most negative Response obtaining the Highest score. There ara a Total of 7 anxiety and 7 Depression questions giving The highest possible score as

Worrying thoughts go through my mind:
   a great deal of the time
   a lot of the time
   from time to time but not too often
   only Occasionally.

21 for each sub-scale).

I feel cheerful:
    not at all
    not often most of the time
    sometimes
    most of the time

It has two sub-scales - anxiety and depression - and is regarded as an aetiological approach since it does not include items of a somatic nature such as tiredness, which could be caused by physical disease as much as mood disturbance.

The test consists of 14 items, seven for each sub-scale and patients rate items on a four-point scale. The HAD scale has the advantage that it is extremely easy and quick to administer.

Validation against the clinical interview schedule shows that it has satisfactory sensitivity and specificity[7]. Another useful aspect of the HAD scale concerns the fact that it has been translated into many different languages including most European, Japanese and some Asian languages but not Arabic languages[8]. This makes it a very suitable measure to use routinely amongst hospital patients, as it can be used with multi-ethnic populations.

METHODS

This cross-sectional pilot study was carried out at the outpatient Clinic of the Oncology Center at Salmaniya Medical Complex, the Main Governmental tertiary care Hospital in Bahrain.

Subjects were the oncology patients attending the Outpatient clinic for their routine follow-up with pre-arranged appointments, there was no selection but they were randomly chosen.

An Arabic translation of the HAD scale was adopted and prepared by the research team,
taking into account that it will be a self-assessment questionnaire filled by the patients themselves in a reasonable time while waiting to be seen by the physician. The questionnaire is filled by accompanying person with the patients if they are not to the level of comprehending the questions.

A random sample of 25 patients was studied. All agreed to participate and were asked to complete the HAD scale questionnaire. All patients and their accompanying persons found the questionnaire straightforward and easy to complete.

The contributing clinical staff also filled a separate form for each patient for identification regarding age, sex, number of visits to the outpatient clinic, the diagnosis including the stage and treatment received in the past.

The HAD scale is composed of 14 items, seven of each subscale i.e. anxiety and depression. The questions are placed alternately and scored from 0-3, the most negative response obtaining the highest score. There are a total of 7 anxiety and 7 depression questions giving the highest possible score as 21 for each subscale.

Scoring more than 9 on either depression or anxiety scale is indicative of a diagnosis of clinical depression or anxiety. This is despite the fact that some cases may be considered as borderline when score is between 8-10 specially with the anxiety subscale.

RESULTS

The sample consisted of 8 males and 17 females, aged 20 to 58. None of these patients was known to suffer from any psychiatric illnesses. Twenty-two of the total patients (88%) were married, 2 were singles and one is a widow. Twenty-four were Bahraini citizens. All were attending for more than 4 visits to the outpatient clinic. Subjects suffered from different types of malignancies **(**Table 1).

Table 1**: Types of malignancies suffered by patients involved in the study**

Cancer Site	No. of Patients
Breast Cancer	11
Hematological malignancies	4
Colon Cancer	3
Ovarian Cancer	2
Soft tissue Sarcoma	2
Others	3
Total	**25**

Twenty-four patients were already receiving some form of active treatment, 20 were on chemotherapy, 2 are receiving radiotherapy and 17 of the total number of patients have already undergone surgical treatment as part of their overall cancer management.

Three subjects out of the total sample population (12%) have scored more than 9 on the depression subscale, which is indicative of a diagnosis of clinical depression. The age range of the depressed patients was 15-57 years. The Mean score on the depression subscale was 12.4/ 21 and all were females.

On the other hand, 5 subjects of the total sample studied scored more than 9 on the anxiety subscale (20%) with a Mean score of 13.6/21. Again all were females**.** (Table 2).

Table 2**: Certain Characteristics of Positive Cases on HAD scale**

No.	Sex	Age	Nation-ality	Occup-ation	Diagnosis	Treatment	Anxiety Sub-scale	Depression Sub-scale
1	F	57	Bah	H.W.	Ca Breast	Adjuvant	17/21	11/21

						CTX		
2	F	49	Bah	H.W.	Ca Breast	Adjuvant CTX	12/21	15/21
3	F	15	Bah	S.T.	Ewing's Sarcoma	Palliative CTX	14/21	11/21
4	F	50	Bah	H.W.	Ca Colon	Adjuvant CTX	10/21	6/21
5	F	43	Bah	H.W.	Ca Bladder	Palliative CTX	15/21	9/21

F = Female – Sex
Bah = Bahraini – Nationality
H.W. = House wife – Occupation
S.T. = Student
CTX = Chemotherapy

All the subjects who have scored high on the anxiety or depression subscales were on some form of chemotherapy whether for palliative or adjuvant reasons. There was no correlation between the high score on the HAD scale and underlying type of cancer. Females scored high on HAD scale compared to males.

The HAD scale is known to show correlation between those patients having high levels of both depression and anxiety. In this study; all 3 subjects who scored high on depression subscale also scored significantly high on the anxiety subscale (60%).

DISCUSSION

The sample of the study consists of 8 men and 17 women. The female preponderance may be partly explained by the fact that this is a randomly selected study and also that more women are attending the Oncology outpatient department. This is because Breast cancer constitutes approximately 35% of all cancers among women in Bahrain[9]. Since the sample was small, no difference was appreciated regarding variations in prevalence of anxiety and/or depression among different cancer diagnoses.

In a study on a large sample of cancer patients (n=4496), overall prevalence rate of psychological distress was 35.1%, the rate varied from 43.4% for lung cancer to 29.6% for gynecological cancers[10].

HAD scale have been used extensively in research to assess psychological distress among patients in different settings[11]. In a study by Pascoe et al, the prevalence of clinically significant anxiety and depression was 11.5% & 7.1% respectively[12]. In another study by Cull et al, an audit of 51oncology patients referred to a clinical psychology service was compared with another sample utilizing HADS & MACS (Mental Adjustment to Cancer Scale), the results showed that 30% warranted assessment for anxiety & 23% for depression[13].

HAD Scale is found to be a valid screening tool for psychiatric disorders, particularly depression when tested in palliative care setting[10,14]. The results were comparable to diagnoses generated from semi structured psychiatric interview[14]. HAD Scale was

tested in general hospital setting and was compared to General Health Questionnaire (GHQ-12) and results were comparable in detecting particularly depression and it performs better than GHQ in the anxiety subscale[15].

In a review of international experience with HAD Scale, it was found to be sensitive to changes both during the course of the diseases and in response to psychotherapeutic interventions. HAD Scale also predicted psychosocial & possibly also physical outcomes[16]. In Norway, a sample of 716 cancer patients was studied; the prevalence of anxiety & depression was 13% & 9% respectively. This study showed that hospitalized patients have twice the risk of psychiatric distress compared to those in outpatient clinic. Female patients reported significantly more anxiety than men, patients less than 30 or 70 years old expressed less anxiety than all other patients. Age & gender had no influence in the occurrence of depression[17].

This study showed clearly higher prevalence of depression and anxiety disorders among cancer patients in comparison to matched-control patients with different medical illnesses; but similar to patients tested in other hospital settings for other major illnesses and in international studies[2].

We think that this study needs to be extended in the future to involve more patients and need to compare the results with formal psychiatric interview to develop local sense of reliability of this extensively tested scale. This study may further be tested to evaluate the same sample again after psychiatric intervention is carried out.

CONCLUSION

Depression and anxiety disorders are especially common among cancer patients. Detection of these disorders is an essential task in the overall management plan.

HAD Scale is a reliable screening tool to detect psychiatric distress among cancer patients. Failure to detect and to treat elevated levels of distress jeopardizes the outcome of cancer therapies, decreases patients' quality of life and increases health care costs.

We feel however that additional clinical trials are warranted to confirm results and expand further on the issues related to psychological distress among cancer patients and its management.

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