DEPRESSION AS SEEN AND MANAGED IN A SENTINEL NETWORK OF GENERAL/FAMILY PRACTITIONERS

A report by SASPREN

Abstract

Aim of the study: To determine the diagnostic criteria used and initial management followed by general practitioners in the diagnosis and management of depression.

Study design and setting: A prospective descriptive survey by general practitioners of a Sentinel research network in South Africa.

Methods: Thirty-five members of SASPREN, during a three month period in 1993, completed a questionnaire about each patient seen with the diagnosis of a depressive disorder. The questionnaire included socio-demographic details of the patient, the reason(s) for encounter (RFE), the diagnostic criteria used by the practitioner, the degree of functional impairment of the patient as well as details of the initial management regimen followed by the practitioner.

Results: Twenty-three practitioners responded with completed questionnaires. Twenty-two practitioners were from the private sector and 78% worked in metropolitan areas. They reported 159 newly-diagnosed cases of depression from 30 958 patient encounters (5,14 per 1 000 encounters). Seventy-four per cent of the patients were female. Sixty-two per cent were married and 68% had secondary school or higher education. An average of 2,5 RFE were recorded per patient, the most common being depressed mood (36%), pain (25%) and fatigue (23%). An average of 4,4 diagnostic criteria were recorded per patient. Only 24 (15%) met the DSM-III-R criteria for a major depressive disorder. Thirty-six (23%) suffered from a debilitating condition and 17% had lost a loved one recently. Eighty per cent received pharmacological therapy for depression, of which 38% were tricyclic antidepressants and 18% serotonin re-uptake inhibitors. Seventy-nine per cent were followed-up by the GPs and 11% were referred to other professionals while 3% were hospitalised.

Conclusions: Depression presents with a very broad spectrum of RFE in general practice. The majority of GPs do not follow the diagnostic criteria intended for use in primary care, pointing to possible shortcomings of these definitions. Pharmacotherapy was very readily prescribed, with antidepressants used most often, in contrast to findings to the contrary in previous studies.

Introduction

Depression is known to be an illness commonly diagnosed in general practice[1-5]. The prevalence of major depression in certain general populations is about 5-6%[1,3,12], though the prevalence of depression in South Africa is unknown. There is a suggestion that depression is not one of the top ten diagnoses made in general practice in South Africa[6] (also SASPREN unpublished data).

Although many depressed patients are diagnosed as such by the general practitioner and managed effectively, it is estimated that almost 50% of sufferers of depression are not diagnosed and go untreated[1,2,7,8,9]. This is mainly due to the stigma associated with depression, as well as patients presenting with atypical depression[1,7,8,10,11].

Diagnosing depression is of great importance, since:

(i) it is now eminently treatable[12,13];
(ii) it is associated with increased mortality and morbidity[14] and fatal results can follow due to two-thirds of depressive patients considering suicide and 10-15% committing suicide[4,12]; and
(iii) depressive patients suffer substantially and the depression interferes with daily functioning[15,16].

The clinical methods of recognising depression are not as clearly developed as with most other physical diseases and there is no gold standard for the diagnosis of depression seen in primary care[13,17]. This could lead to the under-diagnosing of depression. Schulberg et al found that primary health care physicians under-diagnosed depression, while psychiatrists over-diagnosed the condition[18].

Medical professionals are taught to use the DSM-III or DSM-III-R criteria[19] for major depressive episode (MDE). It is unknown if and how these criteria are used in general practice. Studies show that a large group of patients with depressive symptoms do not fit into the present psychiatric classifications[3,13]. This is likely due to depression being a continuum of phenomena, from a normal mood, which commonly affects almost everyone from time to time, to a severe disorder[1].

Psychotherapy plays an important role in the management of depression, especially because all depressed patients need support and reassurance[2,10,12]. The general practitioner should also make the following management decisions[2]: whether to:

(i) prescribe antidepressants or other drugs;
(ii) refer to a psychiatrist; or
(iii) hospitalise the patient.

Very little information is available on the presentation of depression, the diagnostic criteria used and the management of depression in South African general practice.

The objectives of this study were, therefore, to determine in a sample of South African general/family practices:

(i) the practice-based incidence rate of depression;
(ii) the socio-demographic characteristics of a sample of depressed patients;
(iii) the reason(s) for encounter with which patients with depressive disorders present;
(iv) which diagnostic criteria are used by the general practitioners to diagnose a depressive disorder as compared to DSM-III-R criteria; and
(v) how depressive disorders are initially managed.

Methods

The South African Sentinel Practitioner Research Network (SASPREN), a subsidiary of the South African Academy of Family Practice/Primary Care, is a network of volunteer general practitioners[23]. It provides a unique opportunity to conduct research on aspects of primary care. The 49 participating general practitioners of SASPREN were invited in writing to take part in this cross sectional, descriptive study. The study was carried out over a three month period from September to November 1993.

Questionnaires were sent to the general practitioners who agreed to take part in the study. A pilot study was done with seven volunteer practitioners. A questionnaire was completed by the doctor for every new patient diagnosed as having a depressive disorder. Patients with a relapse of depression, but not on any active treatment for a depression at the time, were included in the study.

The questionnaires sought socio-demographic details, reasons for encounter, clinical information relevant to the diagnosis of depression, degree of functional impairment, initial management regimen and the outcome of the initial consultation.

The completed questionnaires were sent back at the end of the three month period, together with the total number of consultations seen in the same period.

The data were captured using Epi Info, Version 5[22] and the data analysis was done by the Medical Research Council with the SAS-package. Analysis of variance and Fischer Exact Tests (2-tail) were done at 5% confidence levels.

Results

Participating doctors

Thirty-five practitioners agreed to take part in the study, of which 23 (66%) responded with completed questionnaires. Of these, 78% had metropolitan practices. All but one doctor were in private practice.

Thunemann TY, De Villiers PJT
Department of Family Medicine & Primary Care,
Faculty of Medicine, University of Stellenbosch,
PO Box 19063, Tygerberg 7505

Incidence and socio-demographic features
The total number of consultations during the study period was 30958. Only 159 completed questionnaires met the inclusion criteria for depression, therefore yielding a reported practice incidence of 0,51% or 5,14 per 1 000 consultations.

Of these 159 patients newly-diagnosed as having a depressive disorder, 40 (25,2%) were males and 117 (73,6%) females and 2 unknown. Their ages ranged from 12-83 years with a mean of 43 years. There were 99 married patients (62,3%), 31 (19,5%) were never married, 14 (8,8%) were divorced and 15 (9,4%) were widow(er)s.

Seventy-three patients (45,9%) had a secondary school qualification, while 36 patients (22,6%) had a tertiary qualification and 2 patients had no formal schooling.

Reasons for encounter (RFE)
An average of 2,5 reasons for encounter (RFE) per patient (range 1-4) (Table I) was recorded in the group of depressed patients. Fifty-seven patients (35,8%) presented with a depressed mood and 39 (24,5%) complained of pain, usually headaches (56,4%).

Criteria for diagnosis
An average of 4,4 diagnostic criteria per patient (Table II) was used by the doctors in the diagnosis of depression.

Twenty-seven patients (17%) had lost a loved one recently, of which 11 patients reacted inappropriately to the loss.

Twenty-four depressed patients (15%) met the DSM-III-R criteria for a major depressive episode (MDE). Fourteen of these patients (58%) had severe functional impairment, while nine patients had moderate impairment.

Management
One hundred and sixteen patients (73%) received non-pharmacological treatment by means of psychotherapy, counselling and support from the general practitioner.

Medication was prescribed for 127 patients (80%). Tricyclic antidepressants were the drugs most commonly used (48%) (Table III).

Patients diagnosed with MDE were mainly managed with a combination of psychotherapy and drug therapy (Table IV).

The outcome of the first consultation was that 125 patients (78,6%) were followed up by the general practitioner, 17 patients (10,7%) were referred to another professional, 4 patients (2,5%) were hospitalised, and 13 patients (8,2%) were not followed up.

Reasons for encounter (RFE)	No of patients (n=159)*	% of total patients
Depressive mood	57	35.8
Fatigue	36	22.6
Sleep disorder	34	21.4
Anxiety/worthlessness	30	18.9
Gastrointestinal symptoms	25	15.7
Headache	22	13.8
Social problems	18	11.3
Cardiovascular and respiratory symptoms	17	10.7
Pain (excluding headache)	17	10.7
Irritable/aggressive	15	9.4
Neuro-muscular	14	8.8
Suicide attempt/ideation	9	5.7
Loss of interest in life	8	5.0
Skin problems	8	5.0
Loss of concentration/memory	6	3.8
Loss of libido	3	1.9
Other	23	14.5

** Patients had several RFEs each*

Table I: Reasons for encounter (RFE) in depressed patients

Criteria categories	No of patients (n=159)*	% of total patients
Depressive mood	115	72.3
Sleep disorder	98	61.6
Fatigue	66	41.5
Anxiety/worthlessness	59	37.1
Gastrointestinal symptoms	43	27.0
Loss of interest in life	41	25.8
Social problems	40	25.2
Irritable/moody	39	24.5
Loss of concentration/memory	27	17.0
Loss of libido	24	15.1
Headache	15	9.4
Suicide attempt/ideation	13	8.2
Neuro-muscular complaints	11	6.9
Other	27	17.0

** Patients can each meet several criteria*

Table II: Criteria used to diagnose depression

Discussion

This is a limited descriptive study of depression as seen in the general practices of 23 voluntarily participating doctors. The results are, therefore, not fully generalisable to family practice in South Africa. The sample size and distribution, and the sampling period, are too restricted.

The practice incidence of depressed patients in this study is probably lower than expected, considering that depression is one of the most common illnesses diagnosed in general practice[1-5]. However, it is unknown what the general practice-based incidence of depression is in SA general practice.

One would expect that because the participating general practitioners volunteered and are interested in research, they would read up about and be on the lookout for depression. This would result in a positive bias (Hawthorne effect) that may portray a better picture than would be expected in general practice. On the other hand, the questionnaire compelled the practitioners to motivate their diagnoses. This could result in a lower incidence rate due to the "second thought" effect and Neyman bias.

The practice incidence of 5,14 cases/1000 consultations is very near to the reported rate of 5,9/1000 consultations in the SASPREN Pilot Surveillance Study during 1993/4 (unpublished data). It, therefore, seems reasonable to assume that the practice incidence reported in this study reflects the true picture in the study practices.

Although statistically not meaningful in this study, the female predominance correlates with the literature[2]. The 3:1 (F:M) ratio was also confirmed in the SASPREN Pilot Surveillance Study (unpublished data).

Common complaints of patients in primary care settings with major depressive disorder include: pain, low energy, a mood of apathy, anxiety or irritability rather than, or in addition to, any overt sadness, as well as sexual complaints[4,15]. In this study, the most common reasons for encounter (Table I) include: sadness or depressed mood, pain (headache and other pain), fatigue, sleep disorder and anxiety or feelings of worthlessness. Therefore, the primary care practitioner should maintain a high index of suspicion in detecting depression when these symptoms present[15].

Only 15% of the patients in this study met the DSM-III-R criteria for MDE. The practice incidence for MDE is therefore 0.08%, which supports other studies that show that a large group of patients with depressive symptoms does not fit into the present classifications[3,13]. Van Korff et al[17] raised the question whether DSM-III categories and criteria are in fact well-suited for use by primary care physicians.

The present study shows that a wide spectrum of diagnostic

Medication	Number of patients (n=127)*	Percentage of patients
Tricyclic Antidepressants	61	48.0
Selective Serotonin Re-uptake Inhibitors	29	22.8
Reversible Inhibition of Mono-amine-oxidase-A	16	12.6
Benzodiazepines	10	7.9
Other sedatives/antipsychotics	17	13.4
Multivitamins	8	6.3
* *Some of the patients were on several drugs*		

Table III: Medication used to treat patients with depression

Patient's diagnosis therapy	Psycho- and pharmaco-	Psychotherapy only	Pharmaco-- therapy only	Referred without therapy
MDE (n=24)	18 (75%)	2 (8%)	3 (13%)	1 (4%)
Non-MDE depression (n=135)	72 (53%)	24 (18%)	34 (25%)	5 (4%)
Total (n=159)	90 (57%)	26 (16%)	37 (23%)	6 (4%)

Table IV: Management of patients with Major Depressive Episodes (MDE) and non-MDE depression

criteria used for depression in general practice does not form part of the DSM-III-R criteria. This highlights shortcomings concerning diagnostic criteria and definitions for depression in general practice.

Most studies have demonstrated that a combination of psychotherapy and pharmacotherapy is the most effective treatment and that psychotherapy alone is effective in treating most cases of mild or moderate depression[12,15,20]. In this study, 80% of patients received pharmacotherapy. Fifty-seven per cent of patients received combination therapy, while 16% received psychotherapy only and 23% medication only. This may suggest under-utilization of psychotherapy by general practitioners.

Previous studies suggest that primary care physicians tend to under-utilize antidepressants and over-utilize anxiolitics. More recent studies, however, show that antidepressants are now more readily prescribed by primary care physicians[21], as is supported by the findings of this study, where 83% of the patients medicated were treated with antidepressants.

Conclusions made from this study include the following:

(i) Although a large proportion of depressed patients in this study do complain of a depressed mood, many present with physical symptoms and the general practitioner should have a high index of suspicion in order to diagnose depression and avoid fatal complications.

(ii) The existing criteria for depression in DSM-III-R are not sufficient for use in South African general practice, due to the wide clinical spectrum of depression seen in general practice. There is no acceptable, effective and universal set of diagnostic criteria available. This warrants further research and attention on both undergraduate and postgraduate levels.

(iii) The study may indicate, despite its limitations, that depression probably is underdiagnosed in South African general practice, considering that the estimated prevalence in the general population is 5-6%[1, 3, 12]. The true incidence and prevalence should be determined with further research in both general practice and the general population of South Africa.

(iv) Pharmacotherapy was prescribed to a large proportion of depressed patients, whereas a relatively small proportion received psychotherapy only. It is unsure whether such a high percentage of pharmacotherapy is justified.

Acknowledgments

Thanks to ROCHE for sponsoring this study, Dr J Volmink for his contribution with the design of the study, Mrs C Stander and Mrs S Swanevelder from the Medical Research Council who helped with the statistics and Dr André Klop for the final preparation of the manuscript.

The following general practitioners contributed their patient-information to the study: J Bewsey (Lyndhurst), G Brink (Glenashley), D Brown (Kokstad), M Cohen (Claremont), C de Muelenaere (Pretoria), K Eksteen (Groot Drakenstein), S Furman (Milnerton), P Herbert (Parow), R Kessow (Heathfield), R Kirkby (Pietermaritzburg), R Lalkhen (Heideveld), S Lison (Sea Point), A Lombard (Simonstown), P Matthews (East London), B Michaelides (Port Elizabeth), S Moosa (Gatesville), G Morris (Bergville), N Naidoo (New Hanover), N Parker (Rylands), C Parschau (Malvern), F Songca (Crawford), A Steinberg (Milnerton), G Todes (Saxonwold) ●

References

1. Paykel ES, Priest RG. *Recognition and management of depression in general practice: consensus statement.* BMJ 1992;305:1198-202.
2. McWhinney IR. *A textbook of family medicine.* Oxford, 1989:262-69.
3. Barrett JE, Barrett JA, Oxman TE, Gerber PD. *The prevalence of psychiatric disorders in a primary care practice.* Arch Gen Psychiatry 1988;45:1100-06.
4. Clinton JJ. *From the Agency for Health Care Policy and Research: Depression in Primary Care.* JAMA 1993;270(2):172.
5. Li PL et al. *The collection of general practice data for psychiatric service contracts.* J Public Health Med 1994;16(1):87-92.
6. De Villiers PJT, Du Plessis J, Saban S, De Villiers MR, Reid A, Van Staden HJ. *What is happening in Cape Town Family Medicine/Primary Care Practice?* S Afr Fam Pract 1994;15:363-72.
7. Sims A. *The scar that is more than skin deep: the stigma of depression.* Br J Gen Pract 1993;43:30-1.
8. Tylee AT, Freeling P, Kerry S. *Why do general practitioners recognise major depression in one woman patient yet miss it in another?* Br J Gen Pract 993;43:327-30.
9. Lemelin J, Hotz S et al. Depression in primary care. Why do we miss the diagnosis? Can Fam Physician 1994;40:104-8.
10. Magill MK, Garrett RW. *Behavioural and Psychiatric Problems.* In: Taylor RB, ed. Family Medicine Principles and Practice 3rd edition. Berlin: Springer Verlag, 1988:539-62.
11. Brodaty H. *Think of depression — atypical presentations in the elderly.* Aust Fam Phys 1993;22(7): 1195-203.
12. Kaplan HI, Sadock BJ. *Mood disorders. Depressive and Bipolar disorders.* In: Synopsis of Psychiatry (6th edition). Williams & Wilkens, 1991 :363-88.
13. Wright AF. *Should general practitioners be testing for depression?* Br J Gen Pract 1994;44: 132-35.
14. Van Mawijk H, Arnold 1, Bonnema J, Kaptein AD. *Self-report Depression Scales for Elderly Patients in Primary Care: A Preliminary Study.* Fam Pract 1993; 10:63-5.
15. Rush AJ. *Depression in Primary Care: Detection, Diagnosis and Treatment.* Am Fam Phys 1993;47(8):1776-88.
16. Gonzales JJ et al. *Mental disorders in primary care services: An Update* Public Health Report 1994; 109(2):251 -8.
17. Van Korff M et al. *Anxiety and depression in a primary care clinic.* Arch Gen Psychiatry 1987;44: 152.
18. Schulberg HC. *Assessing depression in primary medical and psychiatric practices.* Arch. Gen. Psychiatry 1985;42;1164-70.
19. Kaplan HI. DSM-III-R, Diagnostic and Statistical Manual of Mental Disorders, ed 3, revised. American Psychiatric Association 1987.
20. Shearer SL, Adams GK. *Non-pharmacological Aids in the Treatment of Depression.* Am Fam Physician 1993;47(2):435-41.
21. Olfson M, Klerman GL. *The treatment of depression: Prescribing practices of primary care physicians and psychiatrists.* J Fam Pract 1992;35:627-35.
22. Dean AG, Dean JA, Burton AH, Dicker RC. *Epi Info, Version 5: a word processing, database, and statistics program for epidemiology on micro computers.* Centers for Disease Control, Atlanta, Georgia, USA, 1990.
23. Volmink J, Furman S. *The South African Sentinel Practitioner Research Network: Organisation, Objectives, Policies and Methods.* S Afr Fam Pract 1991;12:467-71.