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Prevalence and clinical characteristics of the DSM IV major depression among general internal medicine patients

Babak Moayedoddin^{a,*}, Grégoire Rubovszky^b, Laurent Mammana^d, Emilien Jeannot^{c,f}, Marlène Sartori^d, Nicolas Garin^e, Antonio Andreoli^d, Alessandra Canuto^d, Arnaud Perrier^e^a Liaison Psychiatry and Crisis Intervention Service, Department of Psychiatry, University Hospitals of Geneva (HUG), Hôpitaux Universitaires de Genève, Rue Gabrielle-Perret-Gentil 4, 1211 Genève 14, Switzerland^b Psychiatric Emergency Room Unit, Department of Community Medicine and Primary Care, University Hospitals of Geneva (HUG), Switzerland^c Institute of Social and Preventive Medicine, Faculty of Medicine, University of Geneva, Geneva, Switzerland^d Liaison Psychiatry and Crisis Intervention Service, Department of Mental Health and Psychiatry, University Hospitals of Geneva (HUG), Switzerland^e General Internal Medicine Service, Department of Internal Medicine, University Hospitals of Geneva (HUG), Switzerland^f University of Applied Sciences Western Switzerland, Switzerland

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ABSTRACT

Objective: The aim of this study was to investigate the prevalence and clinical characteristics of the DSM IV major depressive disorder (MDD) among patients admitted to the General Internal Medicine Service of the Geneva University Hospital.**Method:** 557 patients admitted to the IM of the Geneva University Hospital aged 18 to 70 were investigated. Each subject was assessed by a clinical psychologist using the SCID (Structured Clinical Interview Depression for DSM-IV) questionnaire.**Results:** 69 patients (12.4%) met diagnostic criteria for MDD (men: 8.8%, women: 16.9%, $p = .004$). Among subjects with major depression, depressed mood (97%), fatigue (91%), and diminished interest and pleasure (81%) were the most prevalent symptoms. Recurrent thoughts of death were present in 48% of depressed patients.**Conclusions:** This study raises further evidence that an elevated proportion of patients admitted to an acute care general internal medicine facility meet DSM IV criteria for MDD with nearly half of depressed patients suffering from recurrent thoughts of death. It emphasizes the necessity of a targeted, continuous, and active support given by the psychiatry liaison service in the internal medicine setting.

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1. Introduction

With a reported prevalence of 6–20% [1–13], MDD is an important issue in general practice. Depressive symptoms are the most common cause for soliciting the psychiatry liaison services [14]. However the majority of depressed patients admitted to a general hospital, who might benefit from a specific treatment are not detected [9,11,15,16] nor treated adequately [9,17,18]. In this context the number and characteristics of depressive symptoms have been proposed as determinants of recognition of MDD by general practitioners. Increasing number of depressive symptoms [11,19,20], severity of MDD [11,20], and patients loss of self confidence have been associated with better recognition of MDD [19]. The frequency of depressive symptoms has been investigated in previous studies, in order to give a better understanding of the clinical characteristics of depressed patients in general practice.

These studies showed that among general practice patients suffering from MDD, a depressed mood, diminished interest and pleasure, impaired concentration, and fatigue are very common symptoms [20–23]. Recurrent thoughts of death have been reported to be present with variable rates from 19% to 63% [20–26]. In this study we attempted to bring to light the above clinical characteristics of MDD, by analyzing the frequency of depressive symptoms among depressed, French-speaking internal medicine patients using the SCID (Structured Clinical Interview Depression for DSM-IV) questionnaire as gold standard for the diagnosis of MDD [27].

2. Methods

2.1. Study environment

The study was conducted at the Geneva University Hospital among patients admitted to three units of the General Internal Medicine Service (IM), a 160-bed acute care facility. The study has been approved by the Ethics Committee of the Geneva University Hospital and patients signed an informed consent.

* Corresponding author. Tel.: +41 795533634, +41 223723865, +41 223724870, +41 223723874, +41 792127143 (mobile).

E-mail address: babak.moayedoddin@hcuge.ch (B. Moayedoddin).

2.2. Subjects

Over a period of 244 days, from August 2007 to May 2009, 1398 patients were admitted to the three IM units in which the study was conducted. All of these patients were screened for eligibility to participate in this study based on the presence of the inclusion criterion and absence of the exclusion criteria in their medical records.

Inclusion criterion was patient age between 18 and 70. Patients with physical illnesses severe enough to prevent the assessment, and those with poor French skills preventing a reliable assessment were excluded (6.7%; $n = 94$). Those with psychotic symptoms or active substance addiction disorder were also excluded (1.6%; $n = 23$). Finally, those patients who met the inclusion criterion and did not meet the exclusion criteria (39.8%; $n = 557$) were assessed using the SCID (Fig. 1).

2.3. Measurements

Two clinical psychologists specifically trained to use SCID assessed each subject with that instrument. Based on the SCID, if five or more depressive symptoms (Criteria A) were present during the same two-week period (representing a change from previous functioning) and if at least one of the symptoms was either a depressed mood (Criterion A1) or diminished interest and pleasure (Criterion A2), the diagnosis of MDD was retained.

Furthermore to retain the diagnosis of MDD, Criteria B, C, D and E must be considered. Criterion B requires that the symptoms do not meet the conditions for a mixed episode. Criterion C requires that the symptoms cause clinically significant distress or impairment in important areas of functioning. Criterion D requires that the symptoms are not due to the direct physiological effect of a substance or

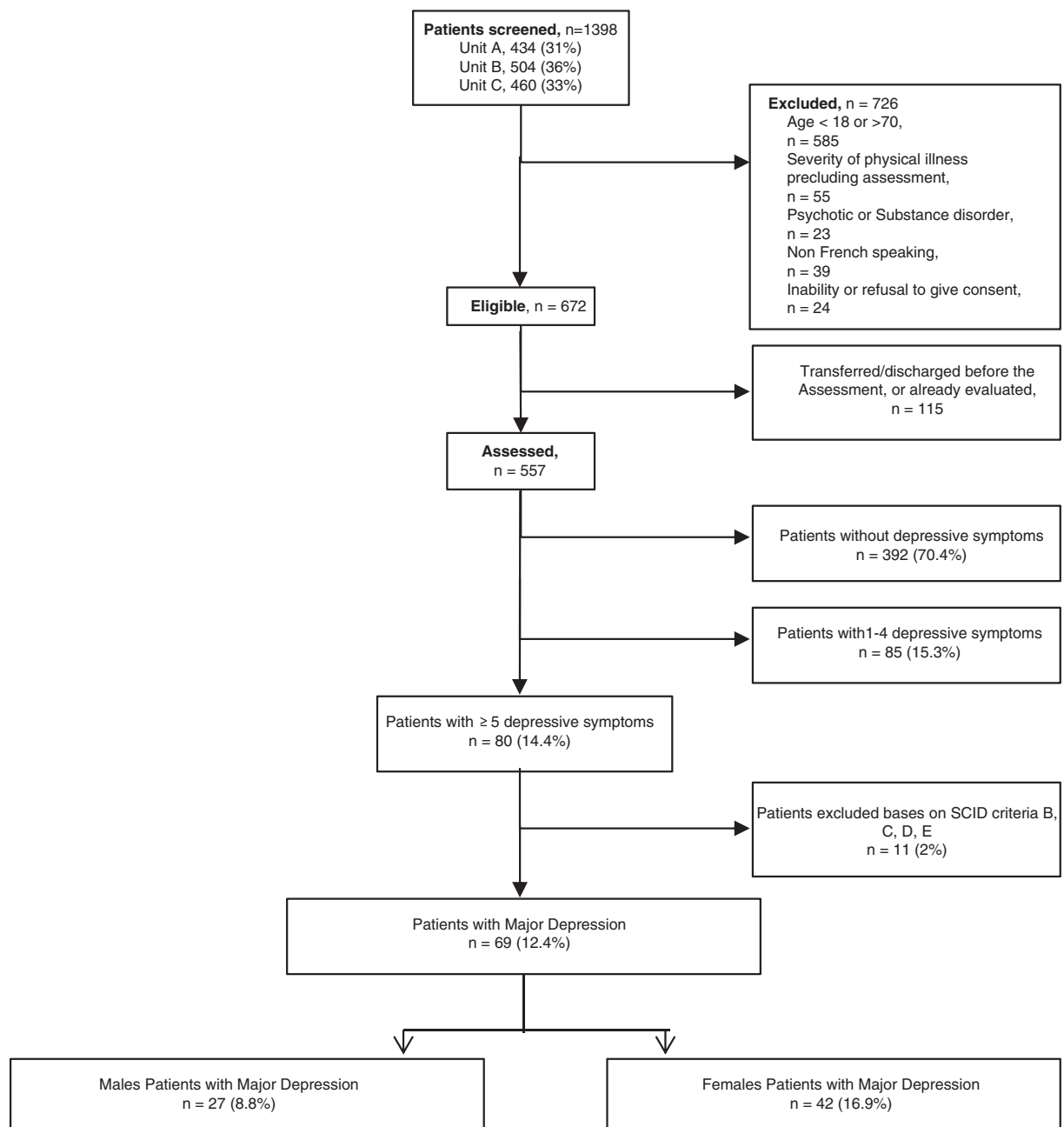


Fig. 1. Selection and exclusion of patients screened for major depression.

a general medical condition. Finally, Criterion E requires that the symptoms are not better accounted for by bereavement.

In case of diagnosis of major depression, the medical unit was informed and the liaison psychiatrist was contacted in order to treat the patient.

2.4. Reliability assessment

The inter-judge reliability was assessed in a random sample of 11 patients on the sum of symptoms (SCID scale), using Intra-Class Correlation coefficient (ICC2). The reliability was excellent, with a mean coefficient of +0.98 (95% CI: 0.92–0.99).

2.5. Statistical analysis

The data was analyzed using SPSS (version 18.0). It was reported as mean values (*M*) and standard deviation (*SD*). *T*-test was used for comparing continuous data and Pearson's chi-square (X^2) was used for categorical comparisons. A *p*-value below .05 was considered to be significant.

3. Results

3.1. Patients

During the research period 672 of the patients (48.1%) were eligible, of whom 115 (8.2%) were excluded due to transfer or discharge before assessment.

Finally, 557 patients (39.8%) were assessed for DSM IV major depressive disorder. The evaluation was performed during the first three days of hospitalization in 425 patients (76.3%). The median time to evaluation was two days.

The age of excluded patients (51.5 ± 13.8) and eligible patients (51.7 ± 14.0) did not differ significantly ($p = .840$). The sex distribution of patients excluded (59.1% men) and eligible patients (54.4% men) was similar ($p = .327$).

3.2. Prevalence of major depressive disorder

Among the 557 assessed patients, 165 (29.6%) met SCID Criterion A1 (depressed mood) and/or Criterion A2 (diminished interest and pleasure). Of these, 80 patients (14.4%) met at least five symptoms for MDD (including criteria A1 and/or A2). However there were still 11 (2.0%) for whom symptoms were better explained by Criterion D, a medical condition ($n = 6$) or substance abuse ($n = 4$), and Criterion E, bereavement ($n = 1$). No patient was excluded because of criteria B and C. Finally, 69 patients (12.4% CI: 9.5%–14.9%) fulfilled the criteria for a DSM-IV diagnosis of MDD (Fig. 1). The diagnosis of MDD was established among 8.8% ($n = 27$) of men and 16.9% ($n = 42$) of women. This difference was statistically significant ($p = .004$). The odds ratio was 2.1 (95% CI: 1.3–3.5).

3.3. Clinical characteristics of major depressive disorder

Table 1 shows MDD criteria met by IM patients. Depressed mood (97.1%), fatigue (91.3%), and diminished interest and pleasure (81.2%) were the most prevalent. Impaired concentration was present in 59% of depressed patients. Recurrent thoughts of death were present in 47.8% of depressed patients. For all nine items of the SCID, we found no significant difference in terms of gender (Table 1).

4. Discussion

This study is in agreement with previous studies that show a high prevalence of MDD among general internal medicine patients [1–12]. In the present study we also investigated the clinical characteristics

Table 1

Frequency of SCID A criteria among general internal medicine patients with major depression.

SCID A criteria	All patients			Gender difference ^a
	n = 69	%	95% CI	<i>p</i> value
A1 Depressed mood	67	97	91–99	0.25
A2 Diminished interest or pleasure	56	81	71–89	0.188
A3 Weight loss or weight gain, diminished appetite	48	70	58–79	0.461
A4 Insomnia, hypersomnia	47	68	56–78	1
A5 Psychomotor agitation or slowing	38	55	43–66	0.713
A6 Fatigue or loss of energy	63	91	83–96	0.321
A7 Feeling of worthlessness, guilt	42	61	49–72	0.468
A8 Ability to think, to concentrate, to take decisions	41	59	48–70	0.305
A9 Recurrent thoughts of death	33	48	36–60	0.303

^a *p* value for difference of symptom prevalence between men and women.

of MDD among IM patients. The results are in agreement with previous observations suggesting that depressed mood, fatigue, and diminished interest and pleasure are highly prevalent among depressed patients in this setting [20–23]. Impaired concentration was however not as frequent as reported in previous studies. This study also concurred with previous studies, showing that a high proportion of depressed patients in the internal medicine setting suffer from recurrent thoughts of death [20–26]. These observations suggest that making MDD assessment a routine part of IM procedure is a worthwhile goal in general hospitals with psychiatric liaison services. It emphasizes the necessity of targeted, continuous, and active support being given by psychiatry liaison services in the IM setting. This is important since previous reports indicated that a high percentage of internal medicine patients with MDD have not been detected and adequately treated [16–19].

This study was limited by the fact that it did not assess the severity of major depression nor did it investigate the relationship between physical illness and MDD. On the other hand, strengths of this study included reliable assessment procedures and a large number of assessed patients.

Further studies are needed to investigate the possible association between clinical characteristics of MDD and medical co-morbidities. One objective of such a study would be better understandings of the difficulties of IM physicians recognizing, diagnosing and treating MDD.

5. Conclusion

This study provides further evidence that an elevated proportion of patients meet DSM IV criteria for major depression in IM setting. It allows for a better understanding of the clinical characteristics of MDD among IM patients. It highlights the most prevalent depressive symptoms among IM patients suffering from MDD. These prevalent symptoms are easy to keep in mind, and being aware of them could help the general practitioner to ask the patient about existence of other possible depressive symptoms, and to better diagnose MDD.

Moreover the article highlights the importance of taking recurrent thoughts of death in consideration when taking care of depressed IM patients. An active search for depressive symptoms, including recurrent thoughts of death and a close collaboration with psychiatric liaison services could improve medical and mental health care of IM suffering from MDD. The MDD characteristics of these patients should be reinvestigated in further studies taking into consideration other variables that would help to better understand the specificities of the IM setting.

Learning points

- The prevalence of major depression among general internal medicine patients is high.

- Internal medicine patients with MDD show a high frequency of depressed mood, fatigue, and diminished interest and pleasure.
- A significant proportion of depressed internal medicine patients suffer from recurrent thoughts of death.

Conflict of interests

The authors state that they have no conflicts of interest.

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