The validity of the diagnosis of depression in general practice: is using criteria for diagnosis as a routine the answer?

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SUMMARY

***Background**. In general practice, making a diagnosis does not follow the same lines as in secondary care because every new diagnosis is made against 'foreknowledge' and could be coloured by it. This could explain low accordance and differences in diagnoses between primary and secondary care, in particular when mental illness such as depression is concerned. When criteria are used for diagnosis there should be no differences.*

***Aim.** To establish the accordance with the Diagnostic and Statistical Manual of mental disorders, 4th edition (DSM-IV) criteria of major depressive disorder when the diagnosis of depression has been made by general practitioners (GPs) for whom coding and using criteria for diagnosis is a daily routine (ICHPPC-2 criteria).*

***Method.** Ninety-nine general practice patients from four general practices belonging to the Continuous Morbidity Registry (CMR) of the University of Nijmegen in The Netherlands were interviewed using the Composite International Diagnostic Interview (auto) 12-month version (DSM-IV criteria). Thirty-three patients had a code for depression; 33 patients a code for chronic nervous functional complaints (CNFC); and 33 had no code for mental illness (the depression and CNFC codes were given in the 12 months prior to the interview). Specificity and accordance with the DSM-IV criteria of major depressive disorder (MDD) were calculated with the results from the interviews.*

***Results.** Of the 33 general practice depression cases (all matching ICHPPC-2 criteria), 28 matched DSM-IV criteria: 26 for MDD and 2 for dysthymia. No cases of DSM-IV MDD were found in the control group without a code for a mental disorder, and seven out of 33 were found in the control group with the code for CNFC.*

***Conclusion**. The specificity of diagnosis of depression made by GPs in a continuous morbidity registry and the accordance with DSM-IV criteria are high. Using criteria for diagnosis, which is a trend, could be one of the solutions towards a better diagnosis. As far as the sensitivity is concerned, GPs should not be distracted from using criteria for the diagnosis of depression when a large variety of complaints is presented.*

***Keywords:** depression; nervous complaints; accordance; coding; morbidity registry.*

Introduction

MAKING a diagnosis in general practice is not the same process as in secondary care. The general practitioner (GP) knows about the patient's background and history, and views the present symptoms against what he/she already knows. From all this, the GP filters the symptoms and either attributes them to a diagnosis already made sometime earlier or makes a new diagnosis. In secondary care, the specialist focuses more on actual symptoms for which the patient has been referred than on previous complaints, history, and context.

These two situations seem like two different worlds, and it is not so surprising that this can lead to a low accordance between diagnoses in primary and secondary care, in particular when mental illness is concerned. When patients present a mixture of many physical as well as mental complaints, we know this filtering and attributing of symptoms to be even more complex. In the literature, these topics of low accordance, low specificity of the diagnosis of depression, and low sensitivity in general practice are discussed in various ways.[1-9] We do not know if this difference in accordance between diagnoses is also found when criteria for diagnosis are used. Does it make a difference to the specificity and the sensitivity of the diagnosis if GPs are used to coding and, therefore, already routinely use criteria for diagnosis? A high validity of diagnoses could be demonstrated for various somatic diagnoses in a general practice morbidity registry, but does this apply for diagnoses of mental illness as well?[10]

Our aim was to study the specificity of the diagnosis of depression made by GPs in a morbidity registry and the accordance with the diagnosis of major depressive disorder (MDD) according to the criteria of the Diagnostic and Statistical Manual of mental disorders, 4th edition (DSM-IV).[11] In the process of doing this we hoped to get some data on the sensitivity as well.

In the Continuous Morbidity Registry (CMR), when patients present a large variety of physical complaints for a certain length of time, with no evident explanation for these complaints by a somatic disease and when no specific code for a mental illness is appropriate, a code is used, called chronic nervous functional complaints (CNFC). By including patients from this category in our study, we hoped to shed some light on where and why cases of depression are overlooked.

Method

A study was designed in which the diagnosis of depression that had been coded in the year before was validated with the Composite International Diagnostic Interview (CIDI) in a recent cohort of patients from the CMR of the Department of General Practice and Social Medicine of the University of Nijmegen in The Netherlands.[12,13] We checked the diagnosis of depression,

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which, in the CMR nowadays is made according to the inclusion criteria for the use of the rubrics of the International Classification of Health Problems in Primary Care (ICHPPC-2), against the criteria of MDD.[14]

Patients and database

The patients for this study were selected from the CMR of the Department of General Practice and Social Medicine of the University of Nijmegen, The Netherlands. The GPs of this registry receive a general training in using the classification list and to learn to apply ICHPPC-2 criteria for all diagnoses in general practice. Monthly meetings are held to discuss coding problems and monitor the application of diagnostic criteria.

Starting from the assumption that about 90% of the patients coded with depression in general practice would also have a depression according to the criteria of the DSM-IV, power calculation showed that, with a total of 35 patients interviewed in the depressive group, percentages of accordance could be estimated with a confidence interval (CI) of ±10% (Chronbach's a = 0.05). In the group with the nervous functional complaints, the CI is ±15% (Chronbach's a = 0.05), with the assumption that no more than 20% of the patients would have a depression. We estimated that, by inviting all patients in the registry with a new code for depression between October 1996 and October 1997, we would have roughly this number of patients. A new code for depression could either be a first diagnosis or a new episode of depression. Further inclusion criteria were that patients must be aged 18 years or over and capable of communicating. Patients meeting these criteria were invited by their GP to be interviewed. For every patient consenting to the interview, two controls matched for age, sex, social class, and practice were randomly selected by the registry — one without any code for a mental illness, the other with a code in that same year for CNFC — and were also invited by their GP for interview.

Interview

All patients were interviewed with the 12-month computerised version of the CIDI which classifies according to the criteria of the DSM-IV/ICD-10 classification. Table 1 shows these criteria as well as the DSM-IV criteria for MDD and dysthymia.

For this article we used results from the following sections:

- demographics (A),
- depressive disorders and dysthymic disorder (E), and
- manic and bipolar affective disorder (F).

We classified according to DSM-IV criteria only. The interviewer had followed a three-day training programme to understand the rules for the administration of the interview. The category to which the patient belonged was blinded for the interviewer by, after consent, offering the interviewer a list of names of patients to invite for the interview without mentioning any category. Patients were interviewed at their home or, if the patient preferred, in the practice of their own GP or in the University.

For every patient, a file was added to the interview containing extra information that the patient gave during or after the interview. With this file the ICHPPC-2 code was validated, and differences between GP and DSM-IV cases could be described. The data were processed anonymously.

Results

Patients

Forty-five patients meeting the inclusion criteria had received a code for depression between 1 October 1996 and 1997: 16 men and 29 women; median age = 46 years (range = 19 to 91). Thirteen patients (seven men and five women) declined the interview. Thirty-three (65%) patients consented: nine men and 24 women; median age = 47 years (range = 22 to 91). For every patient, the two controls were invited, resulting in a total of 99 interviews.

Validity of the GP's diagnosis and accordance with the CIDI diagnosis

All 33 depression codes matched the ICHPPC-2 criteria for depressive disorder as they were gathered with the interview. Of these 33 patients, 26 (79%) met the DSM-IV criteria for diagnosis of MDD (95% CI = 67% to 93%) and another two patients of dysthymia. Together, this adds up to an accordance of 85% (95% CI = 77% to 97%) between general practice and DSM-IV diagnosis. (Table 2 shows the cases of MDD in all three groups.)

The cases of the patients who did not match the DSM-IV criteria could be described as brief recurrent depression and minor depression.[15]

DSM-IV diagnosis of depression in the controls

No DSM-IV major depressive disorder was found in the control group without an ICHPPC-2 code for a mental disorder. In the control group with the CNFC, seven (21%) cases of MDD were found (95% CI = 7% to 35%). One of these seven interviews had been marked by the interviewer because there were serious doubts about the validity of the interview owing to language problems and cultural differences.

Discussion

Validity of the GP's diagnosis and accordance with DSM-IV diagnosis of MDD

All diagnoses were made according to ICHPPC-2 criteria. This confirms the idea that GPs rarely make false-positive diagnoses.[16] Even though, in some studies, a low accordance of diagnoses made with official criteria by GPs is found, in the CMR practices the accordance is high. As many as 26 patients, more than three-quarters, matched the DSM-IV diagnosis of MDD, and another two cases matched that of dysthymia. Dysthymia is a diagnosis not classifiable with ICHPPC-criteria, and is introduced in the DSM to categorise chronic depressions that are of long duration but less severe than major depressive episodes. It is more a diagnosis that is believed to belong to the wide spectrum of major depressive syndromes than a separate diagnosis, and can cause severe distress.[17] A general training in the use of criteria for diagnosis, including monthly meetings to maintain the standard of this use, also leads to a high validity of the diagnosis when mental illness — in this case depression — is concerned, but it also seems to lead to a high accordance with DSM-IV criteria.

DSM-IV diagnosis of depression in the controls

Although the general practice diagnosis has a very high specificity, doubts about the sensitivity remain. In the control group without an ICHPPC-2 code for mental illness in the previous year, no cases were found. The problem lies in the group with the CNFC. Here, seven patients (out of 33) qualified for a MDD according to the DSM-IV. Even though perhaps one of these interviews was not valid, all patients had many physical and psychological complaints; reasons why the GP chose not to give them a code for depression but for CNFC are described earlier. Nervous complaints as a result of serious physical illness (severe migraine and prolonged complications after a cholecystectomy), physical abuse, incest, and alcohol abuse were found in this group.

Table 1. Criteria for depression according to ICHPPC-2, and for major depression and dysthymia according to DSM-IV.

	ICHPPC-2 defined depression	DSM-IV MDD	DSM-IV dysthymia
Number of required symptoms	≥3	≥5	≥3
Core symptoms			
Depressed mood	+	+[a]	+[a]
Decrease in interest	+	+[a]	-
Suicidal thoughts	+	+	+
Indecisiveness	+	+	+
Worthlessness/sense of guilt	+	+	+
Insomnia/morning tiredness	+	+	+
Anxiety/irritability	+	-	-
Psychomotor agitation	+	+	-
Psychomotor retardation	-	+	-
Hypersomnia	-	+	+
Change in appetite/weight	-	+	+
Loss of energy	-	+	+
Concentration problems	-	+	-
Loss of sex drive	-	+	-
Duration	-	≥2 weeks	≥2 years
Almost daily	-	+	+
Social dysfunctioning	-	+	-

[a]At least one of the core symptoms is obligatory.

Table 2. DSM-1V MDD cases in three groups of patients.

GP code	DSM-IV code MDD: no	DSM-IV code MDD: yes	Total
1	7	26	33
2	26	7	33
3	33	0	33
Total	66	33	99

1 = general practice code for depression; 2 = general practice code for nervous functional complaints; 3 = without a general practice code for a mental disorder.

Though the sensitivity cannot be measured accurately with such small numbers, the fact that about one-fifth of the patients in this control group matched criteria of MDD suggests that this is a group of patients where the GP is distracted by foreknowledge and contextual matters from using criteria for diagnosis.

Limitations and strength

Because of the special nature of the CMR practices in which the GPs are trained to use criteria for diagnoses, care has to be taken not to generalise our results to all general practices and to other countries. In The Netherlands and internationally, an increasing number of GPs use electronic medical records with ICPC codes, and an increasing number of research networks in general practice have been formed that could lead to diagnoses with a high validity.

Conclusions

In this study we found that using criteria for diagnosis as a routine, as is carried out in morbidity registries, leads to diagnoses with a high validity also when mental illness is concerned, and to a high percentage of accordance between general practice diagnosis of depression and DSM-IV diagnosis of MDD. However, the sensitivity of the diagnosis of depression remains a topic of concern. Perhaps detection can be improved if GPs are aware of the category of patients in which they are likely to overlook cases and in which 'foreknowledge' distracts them from using criteria. The patients with what is called CNFC in the CMR are an example. A high accordance between diagnoses in primary and secondary care would offer great opportunities in the future for good comparative research on outcome and treatment between different groups of patients.

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