Doctors’ strategies in prescribing drugs: the case of mood-modifying medicines

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**Background.** Little is known about doctors’ decision-making processes in prescribing antidepressants and how this is handled.

**Objective.** To describe and understand doctors’ strategies in prescribing mood-modifying drugs, especially when confronted with challenging patients or situations.

**Methods.** Face-to-face interviews were conducted with GPs in Göttingen and Hannover, two areas in the north of Germany. GPs were enrolled until a sufficient variation (‘saturation’) had been reached ($n = 19$). Interviews were audiotaped and then transcribed verbatim. To analyse the GPs’ concepts and strategies in prescribing antidepressants, the interviews were structured according to themes and recurrent items extracted by theoretical coding.

**Results.** We identified four main strategies used by GPs in the pharmacological management of depressive patients: marketing additional beneficial drug effects, addressing the patients as experts, somatic attribution of the disease and referral to a specialist.

**Conclusions.** To support their prescription, GPs use a variety of strategies to motivate both patients to take a certain drug and themselves to deal with difficult patients or situations in their management of depression.

**Keywords.** Attitude of health personnel, decision-making, depression, family practice, qualitative research, prescriptions.

**Introduction**

Minor and major depression are common psychological disorders with a prevalence of $\sim 10\%$ in a general practice population.$^{1,2}$ Untreated depression can, among other things, reduce people’s quality of life and work productivity.$^3$ The main treatment options in primary care are antidepressant medication, support and watchful waiting, as well as psychological therapies, the latter often being conducted by specialists on referral.$^4$

Many depressive patients are frequent attenders and challenging to treat.$^5$ GPs often are, or at least feel, confronted by their patients’ specific treatment expectations. This can generate ambivalent feelings in doctors towards their patients.

Limited pharmacological knowledge and negative or positive attitudes towards the different classes of mood-modifying medicines may lead to prescriptions and treatment decisions that do not always seem to be rational. For example, a European survey of depression management in the community revealed that two-thirds of those suffering from depression did not receive antidepressant treatment and one-fifth were given benzodiazepines.$^6$ In Germany a mild, slow-release neuroleptic (fluspirilene 1.5 mg, administered by intramuscular injection only) remains very popular with some doctors even though there is hardly any evidence for its efficacy in treating depressive disorders.$^7,^8$

There is an impressive body of literature about the different, often irrational, influences on doctors’ prescribing behaviour—especially patient expectations,$^9$ drug change at the primary-secondary interface,$^{10}$ prescription charges and pharmaceutical representatives.$^{11}$ Additionally, receipt of a prescription can have a symbolic meaning and may shorten the consultation or confirm the patient’s illness.$^{12}$ However, apart from a British study focused on prescribing decisions that made primary care doctors uncomfortable,$^{13}$ we know very little about doctors’ decision-making processes in prescribing antidepressants and how this is handled.

The aim of our study was to learn more about doctors’ ideas of pharmacotherapy and prescribing...
strategies when dealing with patients suffering from minor and major depression, respectively. Based on qualitative interviews, we analysed GPs’ motives and beliefs in pharmacological management and their strategies for coping with the heterogeneity of patients’ wishes and demands. Our goal was not to give a representative picture of the management of depression in primary care but rather to understand doctors’ subjective conceptions, attitudes and strategies when confronted in particular with difficulties in the prescription of mood-modifiers. Special attention was directed to situations described by doctors as challenging.

Methods

Participants
Board-certified GPs located in two cities in north Germany received a written invitation, followed by a telephone call, to take part in the study. A total of 30 GPs practising in two Göttingen city districts, comprising different social strata, and 40 doctors in Hannover were contacted. Additional selection criteria were imposed on the GPs located in Hannover, namely, that their practices should be situated in areas with a substantial proportion of immigrants, of whom they should be treating at least 20. The doctors in this latter instance were additionally asked about their experience in treating immigrants with depression. The data from this aspect of the survey will be analysed and published later.

The sampling strategy described above should offer a mix of participants with respect to age, sex, professional experience, single-handed versus group practices and practices located in upper- and lower-class districts. This should allow a range of opinions and perceptions to be obtained in this study. It was not our intention to measure the influences of these parameters, but they certainly provided us with a heterogeneous picture.

Study design
Two of the authors (AK and CM) conducted semi-structured, face-to-face interviews between August 2000 and July 2001. Among the qualitative tools available, the semi-structured interview guide provided the most flexibility to explore the respondents’ ideas regarding, and experience with, the pharmacological management of depression. The guide was initially tested on two GPs. Based on the results of this pilot study, the questions were made less specific, and further queries and prompts were incorporated into the survey to avoid giving the impression that this was a test of the physicians’ knowledge. Respondents could therefore express their opinions subjectively and go into depth as necessary. Furthermore, we added the aspect of treatment discontinuation to the interview guide, as it became obvious during the first few interviews that when a treatment was discontinued prematurely the physicians were stimulated to pursue alternative strategies (see Appendix). All interviews were recorded and then transcribed verbatim. The average interview lasted approximately 30 minutes (range 15–60 minutes).

Data analysis
A qualitative procedure was employed to collect subjective experiences, attitudes and perceptions. The qualitative analysis consisted of two iterative activities: fragmenting and connecting. These methods are primarily used to examine the subjective meaning of a phenomenon in its natural context. An ‘editing analysis style’ was applied to analyse the interview data:

1. Text segments were extracted, categorized and labelled with codes, according to the key themes to be studied.
2. A conceptual framework was established in order to understand the key themes and their presumed relationships.
3. The codes were summarized to form major concepts, continuously compared with the interview material and then condensed to four treatment strategies.

Data collection and analysis followed an iterative approach, where analysis proceeded parallel to data collection. It was advantageous that the authors possessed different disciplinary backgrounds (anthropology, medicine, sociology) as alternative interpretations could be generated. The size of the interview sample was not fixed in advance, but after about 15 interviews, the authors noticed that no new themes were emerging in the data, and this was taken as an indicator of saturation. Nevertheless we conducted the remaining interviews with already recruited interviewees to prove this. ATLAS.ti software was used to organize the interview material (http://www.atlasti.com/product.php).

The research ethics committee of the University Medical School gave its approval for the study.

Results
Of the 30 GPs contacted in Göttingen, 13 agreed to participate in our study. From 40 GPs contacted in Hannover, 8 fulfilled the criteria for inclusion as described at the beginning of the Methods section and 6 took part in the study, giving an overall response rate of 50%. The main reasons given for not taking part were a general dislike of studies, being tired of participating in studies or a lack of interest in our project. The mean age of the doctors was 48 years; 11 doctors were younger than 50 years; 7 GPs were
women. The average time in independent practice was 7 years (range 2–30 years).

Typically, at the beginning of the interview, doctors talked about patients and situations where they could act according to the textbooks of pharmacology and family medicine. However, since we were particularly interested in themes that appeared to be of high relevance and emotional significance (‘challenging’) for the doctors, the analysis focused on these subjects and situations.

After coding of the transcribed interview material, four main strategies in the pharmacological management of depressive patients emerged:

(1) **Marketing additional beneficial drug effects.** One way to motivate a patient to follow a certain drug therapy was to emphasize a positive effect of the drug—in addition to its mood-modifying effect—so that a specific drug treatment became more attractive (Table 1). For example, some doctors suggested to patients that fluoxetine might not only help treat their depression but also help them to lose weight. Positive drug effects, especially those of fluspirilene, were also sometimes used to convince the patient that he or she was suffering from depression and was in need of an antidepressant and/or psychotherapy. From one GP’s point of view, neuroleptic injections helped to motivate the patient to keep regular appointments. The injection of vitamins—in one case also classified as a mood-modifier—seemed to serve a similar purpose.

(2) **Addressing the patients as experts.** The doctors remembered several patients who absolutely expected the prescription of a certain drug. Sometimes patient pressure was so accentuated that doctors did not believe they could convince the patient to accept an alternative drug therapy and complied with the patient preference. To avoid giving the impression, or feeling, that they were their patients’ servants the patient was addressed as an expert and given an active role in selecting the pharmacotherapy. As one doctor put it “the patient knows what is best for him or her” (Table 2). Some GPs felt that this strategy strengthened patient compliance and cooperation. Others hoped that complying with the initial request for a particular medication would increase the likelihood that the patient would then ultimately accept the doctor’s decision and competence. The examples given in Table 2 show that the patient’s active role, in terms of self-monitoring and feedback, was especially expected in homeopathy and natural remedies. In contrast, the last example in Table 2 shows that it was not the GP’s primary aim to work together with the patient. Feeling that the patient did not take his opinion seriously, the GP left him or her to find out things independently.

(3) **Somatic attribution of the disease.** Various doctors favoured a somatic or biological, rather than a psychological, definition of depression. By using rather simple explanations—“depression grabs you like a cold”—doctors tried to persuade patients to accept a pharmacological treatment (Table 3).

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<tr>
<th>Table 1</th>
<th>Marketing additional beneficial drug effects—strategy</th>
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<tr>
<td>Codes</td>
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<td>“It is possible, for example, to treat depressed and overweight patients fantastically with Fluctin® [fluoxetine], because it reduces appetite. I do not always give antidepressants, which can result in weight gain, and Fluctin® [fluoxetine] does make them eat less.” (GP 5)</td>
<td>Demonstrating (non-antidepressant) benefits</td>
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<td>[This GP described his typical prescribing strategy: looking first at the patients and their needs, and then adapting his information strategy.]</td>
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<td>“I inform her about it [the treatment], but she doesn’t get a chance to read the package leaflet. This is so she will not be so averse to it. And when I then administer the initial IMAP® [fluspirilene], I simultaneously give the patient an antidepressant [SSRI]. The action of the antidepressant [SSRI] and that of the injection take about a week and in that time the level of the other medication can build up. When she feels better after the injection [fluspirilene], then this is the proof that it is really not her stomach or intestine or her pancreas or something else that is causing the problem, but rather she is psychologically ill... And she wants to have the medication again; I can then motivate her to undergo treatment.” (GP 7)</td>
<td>Demonstrating therapeutic efficacy</td>
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<td>“then it’s a very effective treatment [fluspirilene] ... one injection at most per week given over five weeks, thus a bond to the patient is always established which is very good, because I can then always ask, ‘How is your condition?’, ‘How are you doing?’, and ‘How are we going to continue?’” (GP 2)</td>
<td>Establishing regularity</td>
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<td>“Or, sometimes the patients are also suffering from other [problems], and I then offer them a vitamin cure and inject. The patient consequently visits a few times, and as a result, their moods have often improved. But that is not always enough.” (GP 18)</td>
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Referral to a specialist. Most doctors used referrals to specialists, besides others, as a gentle means to persuade patients to do exactly what the GP thought to be best for them (Table 4).

Discussion

Our study revealed a variety of strategies used by GPs both to support the patient in drug therapy and to allow themselves to deal with awkward patients or their own difficulties in management. Most striking was a strategy to emphasize or market the benefits and efficacy of particular medications to the patient.

Limitations and strengths of the study

It was intended that this study should reveal the opinions and perceptions of primary care physicians when dealing with the challenging area of depression management in general practice. However, the diverse sample of GPs interviewed, though crucial to this particular study, is not statistically representative of doctors in Germany. It is therefore rather unlikely—and not an aim of the study—that the results obtained correspond to the prescribing behaviour of German doctors in general. There are two main reasons for this:

(1) The participating doctors might represent a sample of GPs who had an interest in mental...
health matters (selection bias). Since this group reported difficulties in handling patients with a mood disorder, or sometimes felt incompetent with regard to mental health concerns, less interested doctors are likely to experience, at the very minimum, similar problems.

(2) We focused in particular on those situations that doctors described either in detail or as challenging or stressful. Patients and situations that received a standard pharmaceutical treatment and professional advice were less interesting—both in the doctors’ reports and in our analysis (information bias). The results of our study should therefore not be used to gauge doctors’ performance in prescribing and depression management in general.

The results of this study are based only on interviews with doctors. Consequently, we cannot be absolutely sure that the doctors actually act in accordance with the strategies revealed in the interviews. However, since some of these strategies were beyond lege artis performance, the GPs’ frankness was more likely to represent real behaviour than professional ideology. We are aware that doctors’ behaviour is also motivated and controlled by budget restrictions and statutory regulations. The study did not take these constraints into account but focused rather on the actual management of depressive patients.

All authors—forming a multidisciplinary team comprising anthropology, medicine and sociology—contributed to the analysis independently to enhance theoretical sensitivity and transferability (AK and CM mutually cross-checked the coding frameworks; WH continuously supervised the analysis; MMK highlighted the results from a primary care perspective). These measures were intended to prevent selective perception and interpretive bias.17 We also presented our results to groups of GPs in two conference settings, a national and an international conference, to learn whether our findings mirrored their experience and whether our explanation would meet with approval.18 Interestingly, on the national level, the audience felt wrongly accused and, on the international level, the audience listened open-mindedly to the results and considered carefully the described behaviour.

Conclusions

The GPs’ strategies in the pharmacological management of depression seem to be rational in some instances, dubious and perhaps unconsciously made in others, but nevertheless employed to overcome difficult situations or deal with awkward patients.

There is concern that medicines are sometimes not prescribed for the correct indication. It is known, for example, that fluspirilene is prescribed for non-psychotic disorders as a minor tranquillizer,8 even though this is not considered an adequate indication. Apart from the general hypothesis of doctors yielding to patient pressure,19 little is known about the doctors’ underlying motives when disregarding evidence-based pharmacological recommendations. In our study, many doctors felt it necessary to motivate their patients to take antidepressants. For this purpose, unorthodox strategies—strongly reminiscent of commercial advertising approaches—were sometimes applied, including an inappropriate use of fluspirilene.

In a survey of primary care management in depressive patients, many GPs reported problems caused by their patients’ fear of adverse drug effects and their general dislike of drugs.20 Doctors had the difficult task not only of motivating patients who dislike antidepressants to take these drugs but also of encouraging them to take their medication at regular intervals, since continued treatment would particularly benefit those with a recurrent depressive disorder.21

Some doctors in our sample felt torn between anticipated patient expectations and their own opinion. At first glance, their solution—to give the patient a more active role—resembles shared decision-making.22 However, when the doctors’ emotions were more
closely examined, resignation and anger became apparent. In instances where the disease was not discussed directly with the patient, the prescription seemed to reflect the doctor’s perception of the patient’s concept of the disease. In their study on aversion to medicines, Britten and colleagues described doctors who delegated the responsibility for decision-making to the patient even though they were not fully convinced of the appropriateness of the patients’ decision. Some doctors in our study seemed to be waiting for the failure of the patient’s treatment choice so that they could then proceed with their traditional pharmacological approach.

Although both psychological and somatic treatments are recommended for depressive disorders, it was striking how simply some doctors introduced and explained a somatic approach to their patients. This simplicity should obviously persuade the patient to adopt a biochemical point of view and thus to follow a corresponding drug therapy. Primary care doctors, in particular, should help their patients achieve an adequate understanding of their disorder and how to cope with it in order to improve drug compliance and disease management. Favouring a somatic attribution of the disease seems to be a less convincing strategy.

Usually patients are referred to specialists to confirm a diagnosis or to refine their drug therapy. In our study, the treatment of a patient with a specialist’s assistance sometimes seemed to be motivated by the GP’s difficulties in managing the patient. In their study of the prescription of benzodiazepines and mild opiates, Dybwad and colleagues also found that GPs tend to shift responsibility either to other doctors or to the patients themselves. Railton and colleagues concluded from their study of Scottish GPs’ role in depression management that a major benefit in counselling services may be to reduce GPs’ stress level.

There is a large body of literature about which factors influence doctors’ prescribing behaviour—with the patient as one important factor. These external influences which can contribute to inappropriate prescribing behaviour in some cases are often described, or perceived, as pressure on the doctor. However, Stevenson and colleagues propose that patient pressure is often exaggerated by the GPs’ belief in its existence. Similarly, a very recently published study on sore throat management found that doctors did not feel uncomfortable when prescribing antibiotics. Above all, they did not have the feeling that patient pressure was the main reason for their prescription. In their recent study of doctors’ experience during the prescribing process, Henriksen and colleagues pointed out that GPs develop strategies to protect themselves from negative emotions and discomfort by redefining the appropriateness of their prescribing. The GPs’ strategies detected in our study may be interpreted as an attempt actively to handle the pharmacological management so that they feel confident in their prescribing.

Future research

Our analysis may stimulate GPs to reassess how they make their own drug treatment decisions and facilitate a wider understanding of primary care doctors’ strategies in the processes of prescribing mood-modifying drugs and handling patients suffering from depressive disorders. We do not know how successful these strategies really are. Moreover, whether such strategies are acceptable—both from a pharmacological and ethical perspective and from a patient’s point of view—should also be a matter of further research and discussion.

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Declaration

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Conflicts of interest: None.

References

Doctors' strategies in prescribing mood-altering medicines

Appendix: Interview guide, translated from German

1. Which illnesses or problems do you treat with antidepressants?
2. Roughly how many depressive patients do you see per week?
3. How do you rate the various therapies available? What role do antidepressants play in your practice?
4. Which criteria guide your decision?
5. What do you know about how your patients view their illness? How do you handle this knowledge?
6. If you now think about a consultation with the patient, what do you pay particular attention to?
7. In this context, how does the patient participate in the decision, for example, for or against a medication (psychotherapy, etc.)?
8. What do you do when a treatment is unsuccessful? How do you react when a treatment is stopped?
9. Where do you see problems with the treatment?
10. Can you think of a case which you can still remember clearly?