Patients' decisions about whether or not to take antihypertensive drugs: qualitative study

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Abstract

Objective To describe the ways in which patients taking antihypertensive drugs balance reservations against reasons for taking them.
Design Qualitative study using detailed interviews.
Setting Two urban general practices in the United Kingdom.
Participants Maximum variety sample of 38 interviewees receiving repeat perscriptions for antihypertensives.
Main outcome measures Interviewees' reservations about drugs and reasons for taking antihypertensives.
Results Patients had reservations about drugs generally and reservations about antihypertensives specifically. Reasons for taking antihypertensive drugs comprised positive experiences with doctors, perceived benefits of medication, and pragmatic considerations. Patients weighed their reservations against reasons for taking antihypertensives in a way that made sense for them personally. Some individual patients weighed different reservations against different reasons for taking antihypertensives.
Conclusions Patients' ideas may derive from considerations unrelated to the drugs' pharmacology. Doctors who want their patients to make well informed choices about antihypertensives and to reach concordant decisions about prescribing should explore how individuals strike this balance, to personalise discussion of drug use.

Introduction

Many people diagnosed as having hypertension do not take the drugs that as prescribed may benefit their health. Depending on differences in definition and measurement, estimates of how many patients do not take their prescribed medication vary, but the evidence converges on a figure of 50%.[1 2] From the perspective of patients, many taking drugs for chronic diseases make active decisions about their drugs, rather than being passive recipients of medical care[3–5]: patients may draw on both medical and non-medical sources.[6 7]

Patients' reservations appear as a consistent factor in their decision making about drugs and have been explored in the context of epilepsy,[3] rheumatological problems,[8] and hypertension.[5 9 10] The beliefs about medicines questionnaire has been used to examine the link between patients' needs for and concerns about use of drugs,[11] and general psychological models, most recently Bandura's social cognitive theory and the theory of planned behaviour, include dimensions relating to reservations.[12 13]

Although previous studies recognise the place of patients' reservations in their decisions about taking drugs, further work is needed to understand why patients take drugs despite their reservations, with respect to specific conditions.[14] We undertook a qualitative study to explore patients' perceptions about antihypertensives. We describe the range of reservations and reasons to take drugs that patients expressed and the way that they balanced these. The way in which patients handled side effects of drugs is discussed separately.[15]

Methods

After approval from the committee for research ethics, we identified all patients receiving repeat prescriptions for antihypertensives in two urban general practices; patients were either tenants or lived in council, housing association, or privately owned homes. We chose patients in nine groups of between three and six at a time to represent a range of characteristics. We interviewed them separately to explore their perceptions about antihypertensive drugs. Repeating the interview process nine times permitted interplay between the sampling, data collection, and data analysis: the process abided by the principles of developing grounded theory. Theoretical sampling, however, for a range of previously unidentified perceptions, was impracticable,[16] and therefore we sought a maximum variety sample with respect to age, sex, years taking antihypertensives, type and number of antihypertensives, numbers of non-antihypertensive drugs prescribed, and regularity of collection of drugs according to repeat prescription records.[17] Where patients declined to be interviewed, we invited substitutes with similar characteristics. Table 1 shows the characteristics of the practices and summarises the sampling process. Table 2 shows the characteristics of interviewees.

JB conducted all interviews in patients' homes, based on a topic guide derived from a review of existing studies and three pilot interviews. A final version had evolved after the 12th interview. We sought to interview two patients with hypertension who had dropped out of treatment, but neither consented.

We analysed transcripts of the interviews in five steps: identification of themes, generation of a code to

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Table 1 Characteristics of practices and summary of sampling process. Values are numbers

Characteristic	Practice 1	Practice 2
General practitioner registrar training practice?	Yes	Yes
Non-trainers' patients included in study?	Yes	Yes
General practitioner full time equivalents	4.5	5.0
Patients registered in practice	7200	9200
General practitioner full time equivalents participating in study	4.5	3.0
Patients registered with participating general practitioners	7200	5500
Patients prescribed antihypertensives	387	189
Patients substituted because deemed unsuitable according to general practitioner (with reason)	3 (dementia) and 3 (anxiety)	1 (recent illness)
Patients substituted as they did not regard themselves as taking antihypertensives	3	0
Patients substituted as they declined or did not reply to invitation	14	9
Patients interviewed	29	9

label passages, revision of themes and coding scheme as we accumulated data, application of codes to the final dataset, and exploration of the themes' relationships within and among patients.[18] JB and NB generated independent initial coding schemes; differences were resolved by discussion. JB elaborated the coding scheme and applied the final code, with confirmation of consistency through blind dual coding of two transcripts with NB. After 38 interviews (excluding pilot interviews), tape recorded with participants' consent, analysis showed that we had reached theoretical saturation.[17]

We validated our findings by sending respondents a summary of our conclusions based on the taxonomy shown in the box and inviting their comments (table 3).

Results

Interviewees' characteristics covered the range seen among the practices' populations of patients taking antihypertensives (table 2). Most patients taking antihypertensives (29/38; 76%) expressed reservations in some form, but all 38 patients held perceptions in favour of taking the drugs.

We classified reservations and reasons for taking antihypertensives according to the emergent taxonomy shown in the box, which identified reservations about drugs generally and about antihypertensives specifically. Patients balanced these against reasons to take drugs: positive experiences with doctors, perceived benefits of taking drugs, and issues relating to pragmatism. We validated this taxonomy with interviewees, 76% of whom agreed with the statement that it encompassed their views; none disagreed (table 3).

Reservations about drugs generally

A total of 28 patients had reservations about drugs generally. Eleven of these felt that taking drugs was "just not for them" or that medicines were best avoided, but few gave this as their only explanation. Sixteen interviewees expressed concerns about medicines being unnatural or unsafe. For some, it was a matter of the body becoming resistant to inappropriately used drugs or risking addiction:

Patient 34: "I've never touched drugs or anything and I look on all tablets as drugs, and … I wouldn't like to become addicted to anything really."

Thirteen patients mentioned reservations related to perceptions derived from their own or others' adverse previous experience:

Patient 01: "Well I used to be an home help with old people and they used to have that many bottles of pills to take, you know, I think half the time they didn't know what they were doing. I used to say, 'I'm never going to be a pill taker.'"

Eight patients spoke of drug use as signifying ill health:

JB: "Why is it better not to be on medicines?"

Patient 10: "I suppose the underlying problem is that if you're not on medicines there's nothing wrong with you."

Three patients spoke of doctors prescribing medicines too readily, while three mentioned their upbringing as discouraging medicine use:

Patient 20: "You don't want to take any more drugs than is absolutely essential, do you, I suppose … I'm old fashioned, it's the way I was brought up."

Table 2 Characteristics of interviewees and of all patients in the practices who were prescribed antihypertensive drugs. Values are numbers (percentages of column total)

	No (%) of patients	
Patient characteristic	**Both practices (n=576)**	**Interviewees (n=38)**
Age (years):		
<50	39 (7)	7 (18)
50-59	77 (13)	6 (16)
60-69	181 (31)	11 (29)
70-79	188 (33)	9 (24)
⩾80	89 (15)	5 (13)
Male:female ratio	220:356 (38:62)	20:18 (53:47)
Years taking antihypertensives:		
0-4	168 (34)	14 (37)
5-9	115 (20)	5 (13)
10-14	93 (16)	6 (16)
15-19	94 (16)	7 (18)
⩾20	76 (13)	6 (16)
Type of antihypertensive:		
β blocker	256 (44)	15 (39)
Diuretic	302 (52)	17 (45)
Angiotensin converting enzyme inhibitor	154 (27)	12 (32)
Calcium antagonist	181 (31)	12 (32)
α blocker	19 (3)	2 (5)
Nitrate (included as overlap of patients with coronary heart disease)	17 (3)	1 (3)
Other	19 (3)	1 (3)
Number of antihypertensives prescribed:		
1	282 (49)	19 (50)
2	225 (39)	15 (39)
⩾3	69 (12)	4 (11)
Number of other drugs prescribed:		
0	196 (34)	13 (34)
1	143 (25)	7 (18)
2	116 (20)	6 (16)
3	63 (11)	5 (13)
4	30 (5)	4 (11)
⩾5	28 (5)	3 (8)
Regularity of drug collection*:		
Data unavailable	62 (11)	0 (0)
<70% of days	42 (7)	5 (13)
70-80% of days	20 (3)	2 (5)
80-90% of days	64 (11)	3 (8)
90-100% of days	202 (35)	8 (21)
⩾100% of days	186 (32)	20 (53)

*Percentage of days on which antihypertensives were available to take as prescribed according to computer records over the past three months to one year. If >1 antihypertensive prescribed, lowest percentage taken.

Table 3 Responses of 38 interviewees to the statement "I feel that my views about blood pressure and blood pressure medicines can be seen in the [attached] summary"

Response	No (%) of interviewees
Agree strongly	8 (21)
Agree	21 (55)
Unsure	2 (5)
Disagree	0
Disagree strongly	0
No reply	7 (19)
Agree strongly or agree	29 (76)

Reservations about antihypertensives specifically

Of the 10 patients who expressed no reservations about drugs generally, only one expressed reservations about antihypertensives specifically, citing a preference for herbs. Of the 28 patients who did express reservations about drugs generally, 16 also mentioned reservations about antihypertensives specifically (box). Some of these spoke of a desire to be able to discontinue their use of antihypertensives:

Patient 07: "If I was told that you're going to have to stay on them for the rest of your life … so be it. But I would hope … that I could probably come off them."

Some wondered whether treatment other than antihypertensives might be possible:

Patient 17: "I have a brother … he's been taking some homoeopathic medicine and he's fine and he doesn't take half as much as I do."

Patients' reservations about medicines

Reservations about drugs generally
- Drugs are best avoided
- Drugs are unnatural or unsafe
- Drugs are perceived adversely because of previous experience
- Drugs are signifiers of ill health
- Patient brought up to avoid drugs
- Doctors prescribe drugs too readily

Reservations about antihypertensive drugs specifically
- Desire to discontinue using antihypertensives
- Preference for an alternative to drugs
- Patient questioned continued necessity
- Possible long term or hidden risks

Patients' reasons to take antihypertensive drugs

Positive experiences with doctors
- Advice from doctors
- Trust in doctors
- Improved blood pressure readings

Perceived benefits of medication
- Achieving a good outcome
- Feeling better
- Gaining peace of mind

Pragmatic considerations
- Absence of a practical alternative to drugs
- Absence of symptoms to guide medicine use
- Drug use overshadowed by some other consideration

Some patients wondered whether antihypertensives were still necessary. This patient, quoted in the previous section on general reservations, had stopped taking his own antihypertensives for a time:

Patient 34: "I just felt that I didn't need them … I thought, well, taking tablets if you don't really need them …"

Some mentioned possible long term or hidden risks of antihypertensives (see also the quotation from patient 02 cited in the following section):

Patient 23: "There are things that people take and it cures whatever they've got but it gives them something else."

Reasons to take antihypertensive drugs

All who expressed any sort of reservation about drugs also mentioned perceptions favouring use of antihypertensives. These related to positive experiences with doctors, perceived benefits of taking drugs, or issues related to pragmatic considerations (box). Most patients spoke of more than one of these.

Positive experiences with doctors

Thirty patients mentioned positive experiences with doctors as a factor encouraging them to take drugs. Some asserted that it was best to do as the doctor said, but others remained ambivalent despite their doctors' advice:

Patient 02: "I had a feeling sometimes some of these drugs are not compatible with one with another and I have raised that question with doctor once or twice. He has always assured me that they are all right. They wouldn't be designed to be taken if they wasn't. But it's just a lingering feeling in my mind."

For some, it was a general matter of trust for doctors; others mentioned the importance of trust in their own doctor:

Patient 19: "Well I mean I don't, well, I really don't like to take tablets at all, but I have to take them and that's it. Doctor X says that's it and that's it. But I don't like to take them really … Well I trust him obviously, don't I. I trust him … No, only Doctor X. If Doctor X's not there I don't go out, no I wouldn't go to see anybody else."

Seventeen patients mentioned that improved blood pressure readings when checked by the doctor were a reason to take medication:

Patient 04: "I feel more or less that because I've been back numerous times, I've had my blood pressure taken up the clinic here and they've said, oh yes, its fine and so I think I put that down to these tablets you see. So I'm quite happy with them."

Perceived benefits of medication

All but one patient spoke of taking drugs because of perceived benefits. These might relate to achievement of a good outcome, feeling better, or gaining peace of mind (box). Eighteen patients saw drugs as achieving a good outcome generally; most of these went on to mention a more specific benefit. Some mentioned protection from heart trouble or stroke:

Patient 16: "Well I imagine if you've got very high blood pressure, you know, obviously you're susceptible to strokes and what have you … I've got no particular desire to have a stroke, it's something I have to put up with."

Six patients mentioned that antihypertensives opposed other risks to which they saw themselves as being exposed:

Patient 02: "They told me I've got this kidney disease and it might eventually lead to dialysis which they are saying, it is slightly worsening over a very slow period. I hate the thought of that and the answer is if I've got to have tablets, well I don't mind taking them."

A total of 25 patients mentioned antihypertensives either actually or potentially making them feel well or better:

Patient 13: "As I said before when I weren't taking them I felt dizzy and very light headed and headaches and things like that, and as soon as I started taking the atenolol it disappeared, so it must be doing some good."

Three patients mentioned what they saw as welcome side effects of antihypertensives:

Patient 07: "Since I became redundant, I've had six interviews. Because I've been taking timolol I've been going in as calm as anything, so they have got their advantages."

Seven patients spoke of a peace of mind induced by their taking antihypertensive medication:

Patient 11: "When I knew my blood pressure was particularly high, I got very scared of being alone for fear of something happening and I would be on my own … I do feel peace of mind having the tablets."

Pragmatic considerations

Fourteen patients mentioned taking antihypertensives for pragmatic reasons. A few saw no practical alternative for controlling raised blood pressure:

Patient 35: "Yes, I like herbs, if there's anything that I could do with herbs, you know, I would take herbs … but, they don't come to the front so much, do they, you've got to go to a special doctor really, haven't you?"

Two spoke of an absence of symptoms by which to judge blood pressure and use of drugs. Others discounted antihypertensives in relation to some overshadowing factor:

Patient 13: "To take the blood pressure tablets that's sort of one of the lesser things, you know. The steroids are the ones that worry me more than anything else."

Balancing reservations and reasons to take antihypertensives

Patients mentioning reservations also mentioned reasons to take antihypertensives, and most (22/29; 76%) expressly mentioned balancing one against the other:

Patient 10: "I mean it seems to me that like everything else it was a question of balancing the risks. You always have risks if you have long term medication because in a sense you become dependent on it, but on the other hand if you don't take them, then you risk … heart problems and strokes and all the other things which happen as a result of high blood pressure."

Most patients mentioned more than one reason to take antihypertensives, and an individual patient might then balance different reservations against different reasons to take medication. One patient expressed reservations about medicines generally, in connection with her upbringing:

Patient 26: "I didn't want to take anything that interfered with nature really. I'd rather let nature take its course, than to take any sort of medication at all … it was just going against my whole upbringing really."

She balanced these against the perceived benefit of drugs achieving a good outcome and the associated peace of mind:

JB: "If that's how you feel about tablets, why do you take these ones?"

Patient 26: "Through fear, I suppose, that something might happen if I didn't take them … I'd have a stroke … the good thing is that if they're keeping my blood pressure on an even keel, that's good, you know, it's a good feeling."

The same patient also questioned the continued necessity of antihypertensives but balanced this against the perceived benefit of feeling better on them:

Patient 26: "There are times when I think I, you know, probably need medication and there are times when I think I would like to be without it, to see how I got on again."

JB: "Do you ever do that?"

Patient 26: "No, because I know when I need, when I haven't took a tablet I know my body reacts."

Another patient balanced reservations about medicines generally against both positive experiences with doctors and the perceived benefit of achieving a good outcome:

Patient 24: "Well, at the beginning, I didn't like the idea of taking tablets, but it was, you know, that was explained to me at the hospital when I had my heart attack that, you know, you've got to take them to keep you, well to sort of keep me calm and to keep everything working and then, as I explained, its for my own good, and I thought, well then, I've got to take them. Its no good going against these, going to these people, if you're going against them."

Except for "pragmatic considerations," all of the reasons to take antihypertensives were explicitly mentioned by patients as contributing to this balancing process.

Discussion

Patients balance their reservations about antihypertensives and drugs in general with reasons to take them (positive experiences with doctors, perceived benefits of drugs, and consideration of pragmatic issues).

Our taxonomy, which emerged from patients and was validated by them, fits with several previous accounts of patients' perceptions about drugs. Its distinction between reservations about drugs generally, reservations specific to antihypertensives, and reasons to take drugs is consonant with the beliefs about medicines questionnaire, which identifies needs and concerns about drugs in general and about drugs specific to a particular condition.[11] Another study found that rheumatological patients sought to balance treatment risks and benefits,[8] a process also described by psychological models such as the theory of planned behaviour.[13]

The taxonomy's content fits with a description of patients who related taking drugs to having faith in their doctor.[4] A previous study found that patients adhered to antihypertensives through confidence in the doctor or healthcare system, to reduce the effects of hypertension, or because drugs made them feel better physically.[19] Another study found that adherence related to faith in the doctor, fear of hypertensive complications, and a desire to control blood pressure; non-adherence related to misunderstandings of the condition, general disapproval of drugs, or a wish to minimise side effects or facilitate daily life.[20] Fallsberg found that one third of patients with three chronic illnesses, including hypertension, described their drugs as poisons.[21]

Many patients we spoke to took antihypertensives because it made them feel better. This perception is at

odds with conventional medical opinion in the United Kingdom that raised blood pressure is usually without symptoms.[22] Similarly, patients' reservations were not necessarily related to the pharmacology of antihypertensives; drugs were seen as signifiers of ill health or reservations related to patients' upbringing. This confirms earlier evidence that patients may weigh, but not necessarily disclose, their own ideas about use of drugs and that these ideas may derive from considerations unrelated to the pharmacology of drugs.[23 24]

Patients may make different choices about taking antihypertensives, depending on which way the risk is presented,[25] and our study confirms the importance for patients of what doctors say when balancing reservations with reasons for taking drugs. We found, however, that different patients may balance similar perceptions differently, and a single patient may balance multiple reservations against reasons for taking drugs that are different for each reservation. If information is to be offered to patients in a way that connects with their personal understanding, it is necessary to appreciate not only a patient's perceptions but also the way that they balance for that individual.

Weaknesses of the study include a lack of patients who had discontinued treatment before the study, a lack of patients from ethnic minorities (in common with the local population), and the cross sectional nature of the study. Individuals' perceptions and the balance between them might alter—for example, in the face of media coverage—leading to an altered choice about drugs. Longitudinal studies that include patients who discontinue treatment and members of ethnic minorities would build on the current work.

Within these limitations, our findings can help doctors who seek to understand their patients' thinking about antihypertensives at the start or review of a course of drugs. They can contribute to discussing the advantages and disadvantages of drugs in a way that is relevant for patients personally, in support of decisions that are concordant between patients and doctors.

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What is already known on this topic

Patients receiving treatment for chronic conditions often hold reservations about their drugs and make active decisions about continuing to use them

What this study adds

Many patients prescribed antihypertensive drugs hold reservations about medicines, but balance these against reasons to take them in ways that make sense to them individually

Patients' ideas may derive from considerations unrelated to a drug's pharmacology

Different patients may balance similar perceptions differently, and a single patient may balance multiple reservations against different reasons to take drugs

Taking the patient's views into account when reviewing or initiating antihypertensive treatment may be helped by directly asking about patients' reservations, their reasons for taking medication, and the balance between them

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