Research

Patients' views about taking antihypertensive drugs: questionnaire study

John Benson, Nicky Britten

Patients taking prescribed drugs may hold reservations about them or take them despite side effects. In an earlier study, we described a taxonomy of views of patients taking antihypertensives. Patients balanced reservations against one or more reasons to take drugs: the influence of positive experiences with doctors, perceived benefits of drugs, or consideration of pragmatic issues. We report the prevalence of these views in a larger group of patients with hypertension and assess whether the taxonomy encompasses the whole range of views held.

Participants, methods, and results

With local research ethics committee approval, we developed a questionnaire deriving items and language from the earlier qualitative analysis. After two face to face pilots (five questionnaires) and two postal pilots (44 questionnaires), the questionnaire included questions about patients' reservations about drugs, their experience of unwelcome side effects, and their reasons for taking antihypertensives.

In one, mainly urban, general practice of 7200 patients, we identified 626 people who were prescribed antihypertensives. We excluded 39 who denied taking antihypertensives or whose doctor or carer said they were too unwell to take part: 587 patients were sent a questionnaire. The practice resembled the local population in containing relatively few patients from ethnic minorities. After one reminder, 452 patients (77%) returned questionnaires, which we analysed with SPSS and confidence interval analysis software. Respondents resembled non-respondents for age, sex, duration of treatment, number and type of antihypertensives taken, and number of non-antihypertensives taken. Respondents' median age was two years younger than that of non-respondents.

We anticipated similar responses to two pairs of questions within individual questionnaires: these showed a κ of 0.70 and 0.44. We sent 40 randomly selected patients a second questionnaire 12 weeks after the first: 33 (82%) returned it. Comparison of responses in first and second questionnaires showed a median κ of 0.51. These results show a moderate degree of internal consistency and test-retest reliability.

A total of 363 patients (80% of respondents) expressed reservations about antihypertensives in at least one of the categories shown (items 1-4 in table). Many had experienced unwelcome side effects from

antihypertensives at some time, and 77 (17%) continued to do so (items 5-6). All respondents (except six non-respondents to the relevant questions) agreed with one or more of the reasons to take antihypertensives identified in the earlier study (items 7-12).

Many patients were aware of having balanced reservations against one or more of the identified reasons to take antihypertensives, and almost all of those with persistent unwelcome side effects were aware of having done so (items 13-14). Patients also tolerated side effects through pragmatic considerations: they could minimise them when troublesome, were uncertain that antihypertensives were responsible, or were not especially troubled (items 15-17). We found few perceptions not identified in the previous taxonomy (items 18-20).

Comment

Our study confirms the validity in a primary care setting of an earlier qualitatively derived taxonomy of patients' views: many patients taking antihypertensives hold reservations about them and have persistent side effects but balance them against reasons to take antihypertensives that make sense to them personally. Our study may under-represent the views of patients from ethnic minorities and patients who are most infirm.

Reservations and side effects may be associated with not taking antihypertensives as prescribed, whereas open discussion when new drugs are started for chronic conditions may relate to later adherence to treatment.3 4 Debate continues about how best to achieve such open discussion and the related process of shared decision making.5 Exploring the effect of discussing the views about antihypertensives in this taxonomy on patients' subsequent use of antihypertensives would extend the current work and inform this debate. Meanwhile, clinicians who seek to understand patients' views so as to make shared, concordant decisions when prescribing, or reviewing, antihypertensives might use this taxonomy to support discussion of patients' reservations, their experience of side effects, and the reasons why they might consider taking antihypertensives nevertheless.

We thank the patients and staff of Nuffield Road Medical Practice, Cambridge, for permitting and supporting the study's conduct, J Perry, V George, H Bateman, and D Taylor for practical help, and A L Kinmonth for comments on the paper.

General Practice and Primary Care Research Unit, Institute of Public Health, Forvie Site, Cambridge CB2 2SR

John Benson lecturer in general bractice

Institute of Clinical Education, Peninsula Medical School, Exeter EX1 2LU Nicky Britten professor in applied healthcare research

Correspondence to: J Benson jab62@ medschl.cam.ac.uk

BMJ 2003;326:1314

Number (percentage) of respondents (n=452) who responded to and agreed with statements about their antihypertensives on questionnaire

		No (%) who responded	No (%, 95% CI) who
Item No	Statement about antihypertensives	to statement	agreed with statement
1	I'd prefer to lower my blood pressure without taking blood pressure tablets	383 (85)	299 (66, 62 to 70)
2	I wonder whether I still need to take blood pressure tablets	362 (80)	165 (36, 32 to 41)
3	I'm concerned my blood pressure tablets might be having bad effects I can't feel	365 (81)	167 (37, 32 to 41)
4	I'm concerned my blood pressure tablets might have bad effects on me in the long run	360 (79)	187 (41, 37 to 46)
5	Have you ever, either now or in the past, felt unwelcome side effects from blood pressure tablets?	438 (97)	164 (36, 32 to 41)
6	Do you still (last three months) feel unwelcome side effects from the blood pressure tablets you take now?	438 (97)	77 (17, 14 to 20)
7	I take blood pressure tablets because of what happens at the doctors	419 (93)	394 (87, 84 to 90)
8	I take blood pressure tablets to achieve some good result	425 (94)	417 (92, 89 to 94)
9	I take blood pressure tablets because they make me feel well or better	391 (86)	235 (52, 47 to 57)
10	I take blood pressure tablets because they have good side effects on me	391 (86)	140 (31, 27 to 35)
11	I take blood pressure tablets because it feels reassuring	409 (90)	309 (68, 64 to 73)
12	I take blood pressure tablets because I see no alternative	414 (91)	376 (83, 80 to 87)
13	When I started taking blood pressure tablets I weighed up any concerns about medicines I might have with one or more of (my) reasons to take blood pressure tablets	371 (82)	227 (50, 45 to 55)
14	I weighed the unwelcome side effects of my blood pressure tablets against reasons to take them and decided the tablets were worth it	72 (16)	66 (15, 11 to 18)
15	I do something to reduce the unwelcome side effects when they are troublesome	68 (15)	30 (7, 5 to 9)
16	I'm not sure the unwelcome side effects are caused by my blood pressure tablets	71 (16)	40 (9, 6 to 12)
17	The unwelcome side effects don't actually bother me too much	73 (16)	47 (10, 8 to 13)
18	I have other concerns about taking my blood pressure tablets, not mentioned already	325 (72)	15 (3, 2 to 5)
19	I take blood pressure tablets for some other reason, not mentioned already	325 (72)	19 (4, 3 to 6)
20	I put up with the bad effects for another reason	63 (14)	10 (2, 1 to 4)

Contributors: IB undertook analysis of the data. Both authors contributed to the conception and design of the study and drafting and revising the article. JB will act as guarantor for the

Funding: JB was supported by a health services research fellowship from the Anglia and Oxford Health Authority and honorary research fellowship from the Guys, Kings, and St Thomas's Department of General Practice and Primary Care. Research expenses were provided through a grant from the Scientific Foundation Board of the Royal College of General

Competing interests: JB and NB have received payment as members of the Medicines Partnership Professional Development Team. Medicines Partnership is an initiative funded by the Department of Health aimed at helping patients to achieve maximum benefit from their drugs.

- Wallenius SH, Vainio KK, Korhonen MJ, Hartzema AG, Enlund HK. Self-initiated modification of hypertension treatment in response to perceived problems. *Ann Pharmacother* 1995;29:1213-7.
 Benson J, Britten N. Patients' decisions about whether or not to take antihypertensive drugs: qualitative study. *BMJ* 2002;325:873-6.
 Svensson S, Kjellgren KI, Ahlner J, Säljó R. Reasons for adherence with antihypertensive medication. *Int J Cardiol* 2000;76:157-63.
 Rost K, Carter W, Inui T. Introduction of information during the initial medical visits consequences for patient follows through with a physician.

- medical visit: consequences for patient follow-through with physician recommendations for medication. Soc Sci Med 1989;28:315-21.
- 5 Charles C, Gafni A, Whelan T. Shared decision-making in the medical encounter: what does it mean? (or it takes at least two to tango). Soc Sci Med 1997;44:681-92.

(Accepted 20 March 2003)