

Perceptions and experiences of taking oral hypoglycaemic agents among people of Pakistani and Indian origin: qualitative study

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Abstract

Objective To explore British Pakistani and British Indian patients' perceptions and experiences of taking oral hypoglycaemic agents (OHAs).

Design Observational cross sectional study using in-depth interviews in English or Punjabi.

Setting and participants 32 patients of Pakistani and Indian origin with type 2 diabetes, recruited from primary care and community sources in Edinburgh, Scotland.

Results Respondents reported complex and ambivalent views about OHAs, which reflected their ambivalent attitudes towards Western drugs in general. Respondents considered OHAs to be an important part of the diabetic regimen because they perceived British healthcare professionals to be competent and trustworthy prescribers, and they considered the medicines available in Britain to be superior to those on the Indian subcontinent. Despite this, some respondents made deliberate efforts to reduce their tablet intake without being advised to do so. Reasons for this included perceptions that drugs worked by providing relief of symptoms and concerns that OHAs could be detrimental to health if taken for long periods, in conjunction with other drugs, or without traditional foods.

Conclusions British Pakistani and Indian patients' perceptions of their OHAs may partly derive from popular ideas about drugs on the Indian subcontinent. Cultural factors need to be understood and taken into consideration to ensure that these patients are given appropriate advice and to avoid unnecessary changes to prescriptions.

Introduction

People of South Asian origin resident in Britain with type 2 diabetes have a higher risk of complications and a 40% higher mortality, partly because their blood glucose control is poorer than that of white patients.^{1 2} South Asian patients may be less anxious than white patients about adhering to treatments and may attach less importance to controlling their diabetes.³

In this study, we used a patient centred approach to a hitherto unstudied area—the attitudes of Pakistani and Indian patients with type 2 diabetes towards, and

experiences of, taking oral hypoglycaemic agents (OHAs). Our objective was to inform their future care, as minority ethnic patients respond well to health related advice if it is delivered in ways that are sensitive to their views and cultural backgrounds.⁴

Methods

We used single, in-depth interviews that encouraged respondents to display their own understandings and meanings and permitted themes and hypotheses to be identified and tested during the study that might not have been initially anticipated. A bilingual research fellow (NA) fluent in English and Punjabi did all the interviews.

Recruitment and sample—We recruited patients from five general practices in Edinburgh, with a high proportion of Pakistani and Indian patients. Healthcare professionals contacted patients by letter (in English, Urdu, and Punjabi), inviting them to “opt in.” We also used face to face recruitment and snowballing to access respondents from Edinburgh's Pakistani and Indian communities, trying to include hard to reach groups. All respondents were either Indian (n=9) or Pakistani (n=23) (the proportions reflect the demography of South Asians in Scotland (2001 census)), aged 18 years and over, with type 2 diabetes. We purposively sampled respondents on the basis of their age, sex, length of time since diagnosis, and preferred language (see bmj.com). Recruitment continued until no new themes emerged from the interviews.

Data collection—Interviews were conducted in English and Punjabi. Respondents were informed that NA was not a healthcare professional and were reassured about confidentiality. Interviews normally took place in respondents' homes, averaged one hour, and were tape recorded. Interviews were translated into English and transcribed in full. We contacted some respondents after interview to clarify issues and validate findings.

Analysis—The study was informed by grounded theory, which involves concurrent data collection and analysis, together with systematic efforts to check and refine developing categories of data. Themes and

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BMJ 2005;330:1247–50



This is the abridged version of an article that was posted on bmj.com on 9 May 2005: <http://bmj.com/cgi/doi/10.1136/bmj.38460.642789.E0>

hypotheses identified in early interviews informed later interviews. Team members independently reviewed interview data, and regular meetings were held to explore respondents' underlying reasoning, discuss deviant cases, and agree on findings.

Results

Twenty nine of the 32 respondents took OHAs, and three were controlled by diet. Responses did not differ according to type of treatment, method of recruitment, or characteristics of respondents.

Initial reactions to taking OHAs

Respondents expressed some initial trepidation about taking OHAs, as they perceived this as signifying that their condition had deteriorated and they had taken on the identity of a sick person: "I was devastated [about being prescribed glipizide]. I wasn't happy at all. But it was explained to me that diabetes always progresses, no matter how careful you are." (R1, Pakistani, female)

Perceptions of OHAs

Despite their initial concerns, most respondents perceived OHAs as an essential part of their diabetic regimen: "Once you start on these then you have to be on them for the rest of your life. So either you do that, or you risk dying. So you have no choice but to take the medicine." (R12, Pakistani, female)

The importance attached to OHAs stemmed partly from respondents' perception that these drugs were more effective and of a better quality than those from the Indian subcontinent: "See, in Pakistan, the medications are not right, they're just a waste of time, waste of money. I mean these [referring to OHAs] are the real stuff. These are what really work." (R7, Pakistani, male)

Additionally, respondents considered British healthcare professionals to be competent and trustworthy. Most had had experiences of professionals and services on the Indian subcontinent and used these as a benchmark to assess the quality of care received in Britain. Many respondents described health professionals on the Indian subcontinent as untrustworthy: "You know how it is there, our doctors don't really pay attention. They are more concerned with the amount of money they are making. First they will give you a lighter medication, which will make you go back to them again and again until they give you something else." (R13, Pakistani, female)

In contrast, British health professionals were seen as "dealing with everybody the same . . . they will treat according to their condition" (R16, Pakistani, female), because they were paid directly by the NHS and did not gain financially from dispensing prescriptions. Most respondents claimed they had not sought out other treatments for their diabetes, such as herbal remedies, either in Britain or during visits to the Indian subcontinent.

Self regulation of OHAs

Less than half the respondents prescribed OHAs reported taking them as prescribed. Fifteen people described how they routinely adjusted the amount of tablets they took. Most attempted to reduce their tablet intake.

Many respondents saw it as unnecessary to take all of their OHAs when they felt well: "Sometimes you do

say that to yourself, you know, you say to yourself, 'Oh I feel fine and I'll take one today, I won't take two.'" (R27, Pakistani, female)

Some respondents also described deliberately skipping tablets to mitigate unpleasant short term side effects, without consulting or reporting these to health professionals: "So when I took them I would feel so much heat and I would suddenly become dizzy. So then I didn't take them." (R23, Pakistani, female)

Other respondents reduced their OHA intake when fasting or having to skip a meal, usually without seeking medical advice. These respondents were reluctant to take their OHAs without eating traditional foodstuffs, as these foods were perceived as having fortifying properties that balanced out, or counteracted, the side effects of their OHAs: "If you keep on taking tablets and not eating strengthening foods like roti, then they will affect you. If you eat strengthening foods . . . they will not produce dryness." (R16, Pakistani, female)

A few Pakistani respondents said that health professionals had advised them to alter their OHA intake during Ramadan and, because of this, thought they could reduce their tablets on other occasions, even though they had not been advised to do so.

Respondents articulated concerns that, if taken in excess or over long periods, OHAs could be detrimental to their health: "Yes, they told me to take it everyday, but I said 'do I want to die by taking it everyday. . . I don't want to die by taking so many.'" (R4, Pakistani, female)

Some respondents attributed the onset of their diabetes to drugs they had been prescribed for other conditions, such as asthma, anaemia, and pneumonia and expressed anxieties about taking OHAs with other drugs.

In a few cases, respondents also believed that taking several medications together could counteract their individual effects: "Instead of giving too many tablets why don't they give one instead? Like you drink tea and it's good for your health, but if you drink tea too hot or you add something to it then there is no point in drinking the tea. It's only worth it if you could have two tablets instead of say 50." (R25, Pakistani, male)

Self regulation strategies

Self monitoring

Most commonly, respondents self monitored their blood glucose and took all their tablets only when they considered their readings to be high: "And now in the morning I take three pills, sometimes two, meaning I check it [blood glucose] and according to that I do or don't take all the pills." (R5, Pakistani, male)

In some cases, respondents were unaware of appropriate levels for blood glucose control. One man, for example, claimed that he only took all of his prescribed tablets when "it goes out of control at 18 or 19." (R26, Pakistani male)

Reducing food intake

A few respondents described how they deliberately reduced the amount of food they consumed, or skipped meals, so that they could take fewer tablets: "Sometimes I will take two when I don't spread too much jam on my toast or even sometimes I don't even spread any. If I feel like a bit of a pleasure then I will put some on and then I will take the extra tablets." (R19, Pakistani, male)

Discussion

We identified various factors that may influence Pakistani and Indian patients' adherence to oral hypoglycaemic agents. These included confidence in British healthcare professionals as prescribers, perceptions of Western medicines as efficacious, expectations that drugs should provide instant relief of symptoms, and beliefs that Western medicines can have detrimental effects if taken in excess or without traditional food-stuffs. Respondents had to balance these competing concerns, which could lead them to self regulate their OHAs in ways that they saw as rational but that went against medical advice.

Popular ideas about medicines, derived from the Indian subcontinent, may have informed the ways respondents took their OHAs. On the Indian subcontinent, people commonly self medicate, make selective use of prescribed drugs, and abandon drugs that do not provide prompt relief of symptoms.⁵⁻⁶ Respondents' concerns about taking OHAs in excess may derive from popular ideas that Western drugs are powerful but inherently dangerous.⁷

Health professionals should try to establish how Pakistani and Indian patients actually take their OHAs, as elevated glucose or glycated haemoglobin levels might be due to missed doses rather than underprescribing. Dietary beliefs and practices should be explored as part of the consultation. Health professionals should question Pakistani and Indian patients directly and opportunistically about side effects and health problems they may be having, and stress the importance of presenting if problems arise. Key to improving adherence is good health provider-patient communication (box).⁸ Bilingual link workers may have an important part to play here.

Strengths and limitations

This is the first qualitative study to look in depth at British Pakistani and Indian patients' perceptions and experiences of taking OHAs. We did not use translators during the interviews, thereby enhancing the quality of the data. As we did not have access to respondents' clinical records, and did not use a longitudinal design, we cannot determine the effect of adjustment of OHAs on glycaemic control. A further

Key recommendations for health professionals

In order to identify and counter beliefs that may influence adherence to oral hypoglycaemic agents (OHAs), health professionals should:

- Be aware that some Pakistani and Indian patients may adjust OHA treatment according to symptoms
- Ask patients in a non-judgmental way if they adjust their drugs themselves
- Explore individual patients' understandings of and concerns about taking OHAs
- Be aware that some Pakistani and Indian patients perceive the need to balance "strong" OHA drugs with dietary changes (that may not be appropriate to their diabetes management)
- Ask patients if (and how) they adjust their diet because of their OHA treatment and vice versa
- Ask patients directly about any symptoms they attribute to their diabetes and their treatment

What is already known on this topic

Poor adherence to prescribed oral hypoglycaemic agents (OHAs) presents a serious problem for professionals who deliver diabetes care

British South Asian patients have poor blood glucose control compared with white patients and may be less adherent to their treatment regimens

Adherence can be improved when patients are approached in culturally sensitive ways

What this study adds

British Pakistani and Indian patients have ambivalent attitudes towards OHAs, which may partly derive from popular ideas about Western drugs on the Indian subcontinent

Pakistani and Indian patients' beliefs about Western medicines may lead them to self regulate their OHAs in ways that seem rational to them but go against medical advice

Health professionals need to establish how and why patients take their OHAs in order to improve adherence and glycaemic control

limitation arises from the absence of qualitative work involving members of the general population or other minority ethnic groups that can be used for comparative purposes. This should be a priority for future research. Finally, as this study focused on Indian and Pakistani patients, most of whom emigrated from the Punjab region, this may limit the generalisability of the findings to other South Asians.

We thank all the people who helped with recruitment, the patients who took part, and the members of our advisory group. We also thank Margaret MacPhee and Ruth Scott for excellent secretarial support.

Contributors: See bmj.com

Funding: This study was funded by the Chief Scientist Office, Scottish Executive Health Department. The funder played no role in the study design; in the collection, analysis, and interpretation of data; in the writing of the paper; or in the decision to submit the paper for publication. The views expressed in the paper are those of the authors.

Competing interests: None declared.

Ethical approval: Lothian Research Ethics Committee. Ref: LREC/2001/3/20.

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(Accepted 14 April 2005)

doi 10.1136/bmj.38460.642789.E0