

Research paper

Improving consultations in general practice for Somali patients: a qualitative study

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ABSTRACT

Research has shown that people forget a considerable amount of the information they are given in medical consultations. This can have consequences in terms of compliance with treatment plans, frequent attendance, missed appointments and staff time in providing reminders and rescheduling appointments.

This paper looks at the benefits patients perceived in receiving personalised audio information recorded on a digital recording device (DRD) as a reminder of the advice they had been given during their consultation with a health professional.

Patients over the age of 18 years attending general practice who needed an interpreter to accompany them into their appointment were recruited from

the Somali community. At the end of the consultation, patients were given a recording in their own language of information relating to their health. Patients were contacted approximately one week later by an interpreter who carried out a telephone questionnaire.

The DRDs were well accepted and found useful for remembering advice given, instructions on medication and appointment times. The devices appear especially useful for older people and those who reported having memory problems.

Keywords: audio recording, black and ethnic minority groups, concordance, cultural competence, information recall, patient information, primary care

Introduction

It has been known for some time that a significant percentage of the information given in medical consultations is forgotten (Goodwin, 2000). To give some early examples, Anderson *et al* (1979) showed that patients only remembered 40% of the information they were given, and that almost half of what they recalled was incorrect and had either been imagined or misconstrued. More recently, McGuire (1996) found that patients remembered only 25% of the information they were given, which is less than that reported by many previous studies into recall (e.g. Anderson *et al*, 1979; Rice *et al*, 1989; Shapiro *et al*, 1992). This situation may be due to the fact that medical advice is usually spoken. Blinder *et al* (2001) showed that written information was better remembered and was associated with greater compliance with the advice

given. Written information, however, is not necessarily appropriate for people with low literacy or for non-English speakers. The challenge, in such situations, is to find a medium in which information can be presented and retained for future reference.

The use of tape recordings has been explored in secondary care, mostly in oncology settings (McClement and Hack, 1999; Tattersall *et al*, 2002). Scott *et al* (2003) carried out a systematic review of the literature and concluded that the provision of audio recordings or summaries of important consultations could benefit most adults with cancer. Other specialties in secondary care have also undertaken trials on the use of audio tapes. For example, Leahy *et al* (2005) gave audio tapes of consultations to preoperative cardiac surgery patients, and found that patients who received

a tape found it of positive value in addressing their information concerns. Listening to the tape increased patients' understanding and their ability to give informed consent.

Despite these successes, there seem to have been fewer attempts in primary care to explore the use of audio recordings in providing information for patients. This paper describes a project which piloted the application of a new audio technology to information giving in primary care, through the use of digital recording devices (DRDs) to record personalised information for patients from the Somali population.

Overview of the project

The aim

People who speak English are able to benefit from a range of information sources mostly barred to those who cannot read either in their mother tongue or in English. Therefore, we set out to look at the benefits experienced by patients in primary care, who could not communicate in English, of receiving audio information, in their own language, on a DRD, and to establish whether the equipment used was suitable for purpose. At this stage we felt that this was as far as we could go, although we recognise that it would ultimately be useful to also establish the effectiveness of the devices by, for example, testing recall of information.

The equipment

The DRDs used were small (80 × 57 × 10 mm), inexpensive devices with a unit cost of £4.50 that allowed up to one minute of audio information to be recorded. A microphone built into the back of the device enabled information to be recorded, and a large button on the front allowed information to be replayed. The devices were issued with batteries already inserted and ready to use. No set-up time was needed. The message time was limited to one minute, so recording the message had minimal impact on the overall consultation time. The audio message on the DRD could also be changed by recording over any existing audio information, allowing the devices to be re-used.

The setting and sample

The project was based at a branch of an inner-city medical centre in Sheffield where Somali people account for 23.6% of the practice population of 2780 (see Table 1). In terms of deprivation, 27.1% of the households registered with the main and branch

Table 1 Practice population profile: main medical centre and branch medical centre combined

Age group (years)	Number (%)
0–4	326 (5.0)
5–14	654 (10.1)
15–24	971 (15.0)
25–44	2453 (37.9)
45–64	1262 (19.5)
65–74	423 (6.5)
75–84	261 (4.0)
85+	128 (2.0)
Total	6478

Data Source: Sheffield Population Health Register 2006.

surgery claim income support (see Table 2). The practice has patients on its books from many different countries. The Somali population was selected for this pilot project as Somali patients are frequent users of the services offered at the practice. As a group, Somali refugees experience many health and social welfare problems. There is high unemployment and poverty amongst the Somali population generally, with some studies estimating over 70% unemployment among Somali men (Rutter, 2006). Between 20% and 70% of all Somali families in the UK have female heads of household. This is attributed to civil war, families being split up when fleeing the country, or divorce (Rutter, 2006). The refugee experience of many of the people who have recently arrived from Somalia means that they suffer from depression, anxiety, post-traumatic stress disorder and problems of adjustment related to the change in culture (CVS Consultants and Migrant and Refugee Communities Forum, 1999). Many have had little or no education in their home

Table 2 Deprivation indicators

Deprivation indicator	Number (%)
% of households in a poverty postcode ^a	3050 (47.2)
Households claiming income support ^b	843 (27.1)

^a Postcodes where more than 30% of households are in receipt of income support or other benefits.

country because of the civil war. They have a limited knowledge of English, and many adults are not literate in any language (Rutter, 2006). Audio information therefore seemed an appropriate tool to pilot in this community.

All Somali patients over the age of 18 years who needed an interpreter to accompany them in their appointment with a health professional were invited to take part in the study, and receive a personalised digital recording of information about their health to take home with them at the end of the consultation. Patients were approached by the Somali link worker in the waiting room, and the study was explained to them in their own language. Patients who agreed to take part were asked to sign a consent form. The link worker explained the content of the consent form to patients who either signed their name or marked the form with a cross to signify their consent to receiving an audio recording device and being contacted at home by phone a week to 10 days later.

All patients who were approached were given the option of not taking part and of withdrawing from the project at any time. North Sheffield Research Ethics Committee reviewed the project and issued a favourable opinion.

The link worker

A Somali link worker is employed by the practice, and this simplified any issues around interpreting. The link worker was involved in the project from the beginning and so was well informed and able to give patients information about the project and ask for their consent. It would have been more difficult to do this if we had needed to use a series of different interpreters from an agency.

The link worker at the practice routinely interpreted for patients who requested help in GP consultations. For this project the link worker was asked to record the summary information given by the general practitioner (GP) at the end of the consultation onto the DRD, and to give the patient the recording device to take home. In most cases, rather than give a summary of the advice given, the GP asked the link worker to record information about medication, or future appointments onto the DRD. All the patients in this study had a previous history of being accompanied in the surgery by a link worker who gave an interpretation of the GP's verbal summary at the end of the consultation. This study simply extended that normal practice, by the interpreter recording their interpretation of the GP's verbal information onto the recording device. A few devices were given out by the physiotherapist in the practice and these contained information about how to do specific exercises.

Method and data analysis

A semi-structured questionnaire was drawn up in consultation with researchers from the University of Sheffield School of Nursing. This was administered in a telephone interview undertaken by one of the three Somali interpreters recruited to the project from the Community Access and Interpreting Service. Training was arranged for all the interpreters through the School of Nursing at the University of Sheffield.

The questionnaire consisted of 13 questions. Of these, eight were factual questions and five open questions. The questionnaire was piloted during the interviewer training to iron out any problems before the project started. Questions were asked about frequency of use of the DRD, and whether people other than the patient had listened. Three factual questions were included about the equipment's suitability for purpose, in terms of ease of use, the clarity of the audio information and any problems in operating the DRD. An open question was asked about how people felt about receiving personalised information to take home on a DRD, and the interviewer used a series of written prompts to attempt to draw out more in-depth answers to this question. Two questions were asked about the type of information recorded, how useful this had been and what patients would like to be recorded in the future. Finally, there was a question for those who had not used the DRD, asking them to give reasons for non-use.

Data from the questionnaire were entered onto an Excel spreadsheet. The number of people and the amount of data enabled the qualitative analysis to be performed manually by looking for common themes in the interpreter's notes.

The intention behind the qualitative questions was to uncover the interviewees' own interpretations of the value of the devices. While the prompts reflected the researchers' prior assumptions about how the devices might be useful for the participant, they nevertheless encouraged the interpreter to explore all possibilities. This approach recognised that rather than having an objective meaning, the value of the devices came from how they were used by the patient to interact with their particular circumstances of having limited fluency in the English language. Following a symbolic interactionist perspective, the data analysis sought to discover the socially constructed meanings that the devices had for people's own lives, in relation to their GP consultation. This meaning arose not from the intrinsic value of the devices themselves, but from how it became created through the patients' interaction with understanding their health. The coding structure focused on examining the meaningful and symbolic interpretation that the devices had for the patients themselves.

Administration of the questionnaire

Interviewers wrote down the answers given by the participants while they were on the phone, with a questionnaire taking approximately 10 minutes to complete. Tick box answers were included for some of the simple factual questions. The interviewers were not part of the research team and had no stake in the outcome. They were gender matched with the patients they were contacting. In some cases the subject did know the interpreter who administered the questions. This was important because in a close-knit community, people do know each other, and it is difficult to be completely anonymous.

The interviewers initially experienced some problems in successfully making contact with participants. Some people could not remember their phone number accurately and others were living in hostels where there was only a communal phone. Most of these problems were solved by the practice checking the telephone numbers before the consent forms were passed on to the research team.

Findings

In total 68 people agreed to take part in the project and received a DRD. Contact was made with 58 of the participants who were given the opportunity to opt out of the project before the interviewers began the questionnaire. No one chose to drop out at this stage. Of the 58 people who completed a questionnaire, 81% were women, mainly aged over 55 years (see Table 3).

It was not possible to follow up ten of the people who had been given a DRD. We do not know whether they chose not to answer the phone as they did not

want to talk to an interviewer, or whether they were simply unavailable.

People were at first reluctant to accept a DRD and take part in the project. The link worker reported that people liked the idea of being able to take personalised audio information away with them, but were not sure about being phoned at home afterwards and asked for their views in case it had something to do with social services. They were reassured by the fact that one of the interviewers who had been trained to carry out the questionnaire was well known in the community, that they were given the opportunity to opt out of the project and didn't have to answer the questions if they didn't want to. After the project had been going a few weeks, people began to come to the surgery and ask for a recording device. Word of mouth spread news about the project through the community, and people decided they would like to take part.

Did patients listen to the information?

Fifty-one of the 58 interviewees had listened to the information on the DRD (see Table 4). Of these, 16 people had listened once, nine had listened twice and 26 had listened more than three times, some of them reporting that they had listened 'many, many times', or 'several times a day'. The questionnaire showed that most people had just listened to the information themselves. However, some people (39%) had allowed family members to listen to the information as well.

Seven people had not listened to the recording. Four said they were too busy, hospital visiting or looking after young children. One could not remember being given a device, one person's recorder was not working and one person felt that they didn't need the recording as they had a good memory. Frequent listeners tended to be in the older age groups. However some younger people were also in the group who said they had listened many times. These were people who, although they were young, reported having memory problems, or the information recorded for them was of a nature that could be listened to many times, for example, instructions for doing exercises.

Was the audio information useful?

Of the 51 people who had listened to the audio information, 48 (94%) reported that they thought the recorded information was useful. Two people said they would have liked different information to be recorded. One person felt they had a good memory and didn't need information recording and so had not listened to the message.

Those unable to read English found the devices especially useful in enabling them to remember advice given and to overcome problems with written

Table 3 The age and sex of participants

Age group (years)	Male	Female	Total
18–24		1	1
25–34		1	1
35–44		7	7
45–54	2	5	7
55–64	2	8	10
65–74	6	21	27
75 or over	1	4	5
Total	11	47	58

Table 4 Frequency of use of the digital recording devices (male and female combined)

Age group	Did not listen	Listened once	Listened twice	Listened three times or more	Total
18–24	1				1
25–34				1	1
35–44		2	2	3	7
45–54	1	3		3	7
55–64	2	3		5	10
65–74	2	6	7	12	27
75+	1	2		2	5
Total	7	16	9	26	58

information. For example, many patients mentioned that they used to forget how to take their prescribed medication, but the DRD helped them to take it correctly.

‘I use to forget the way I am taking the medication but since I got the device I am not.’ (woman aged 65–74 years)

‘I listen whenever I want to take my medication to make sure that I am taking the right amount or in the right time.’ (woman aged 65–74 years)

‘I don’t read or write English so remembering or listening from the device is a good thing.’ (woman aged 55–64 years)

‘As I cannot read the label of medicine, but listening [to] the device about the audio information recorded was just telling me how to take my prescription.’ (man aged 55–64 years)

Patients also said that it helped them to remember appointments that they would otherwise have forgotten. For instance:

‘I am elderly woman, I always forget appointment, but now the device helps me.’ (woman aged 65–74 years)

Older people and those with memory problems felt that the DRD was useful, as they were aware that they forgot many things:

‘I have got hard time remembering things so to have it recorded helps me.’ (woman aged 65–74 years)

Was the equipment suitable?

Most patients (98%) found the DRDs robust and easy to use and had no problems using them. The DRDs

were delivered with the batteries already inserted for immediate use and a spare set enclosed. In a proportion of the devices the batteries were not working and needed to be replaced, but this appeared to be the only problem reported and was simple to remedy. Only one person could not get the device to work.

Comments were made about the fact that the devices were small enough to be carried around anywhere and that they were perceived as being useful.

‘I think this is a fantastic piece of tool and I think many people will benefit from it.’ (man aged 45–54 years)

The questionnaire asked people what the DRD had helped them remember. Most responses related to remembering appointment times or how to take medication. People were also asked what sort of information they would like to be recorded next time. People could clearly see the benefit of the information that had been recorded for them, but were also able to extrapolate how the DRDs could be used and the sort of information that they might find useful in the future. Nineteen people came up with a broad range of ideas other than medication or appointments that they would like to be recorded, for example: information about healthy diets, the side-effects of medication, and health correspondence.

People can have high expectations of technology. The link worker reported that initially some people expected that at the right time the DRD would be activated to remind them of whatever they needed to do, to take medication or go for their appointment. This facility is beyond the scope of the DRD that was piloted and would be a much more expensive and complex device to set up.

Discussion

When assessed against the aims of the study, the above findings indicate that the majority of patients perceived clear benefits in their use of the DRDs. This strong support for the DRDs needs to be considered against a number of contextual factors.

Methodology

Given that an inclusion criterion for recruitment was that the patient routinely needed an interpreter to accompany them into the GP consultation, it was always likely that the sample would be skewed towards older people for two reasons. Firstly, older people are more likely to have health problems and secondly, they are less likely to be fluent in English and therefore more likely to need an interpreter. As noted earlier, the Somali community has a greater preponderance of female heads of household. This, together with the working pattern of the link worker, who covered only morning sessions, could account for the skewed nature of the sample. We do not know whether we would have obtained different results if more men and younger people had been interviewed.

The nature of the qualitative data collected may have been limited by the use of interpreters as interviewers. Despite receiving training in basic interviewing skills at the start of the study, the interpreters could not be expected to follow a qualitative paradigm to probe for participants' views in the same way that an experienced researcher would. This may have limited the richness of the data collected and inevitably made the researchers' analysis dependent on those aspects of the interview that the interpreter chose to focus on, and to make notes of.

Evaluating the perceived benefits of a DRD amongst a community of people, many of whom are vulnerable, presents many challenges. Comments from the link worker highlighted how people are likely to be suspicious and reluctant to take part in anything where they need to be followed up and contacted at home.

Factors affecting acceptance of the DRDs by patients

While this study investigated the acceptance of the DRDs it did not control for the content of information recorded. The nature of the information would clearly be expected to influence the patients' perceived benefits of the devices. The fact that people were able to extrapolate how the DRDs could be used in the future and the sort of information that they might find useful suggests that the participants felt the DRDs had value.

Also, the fact that people took the initiative to ask for a DRD when they came to the surgery appears to indicate that the devices had value to members of the Somali community.

However, the findings also showed that a minority of participants had not listened to the information (see Table 4). This acts as a reminder that the DRDs may not be appropriate in every situation, and there may need to be some discretion in distributing devices, based on who would benefit. Other studies into the use of audio tapes such as one by Leahy *et al* (2005) found that some people preferred not to listen to the audio information they were given and that this may have had something to do with their preferred coping mechanism.

The devices were piloted in a practice where staff were interested in new ideas that could potentially benefit their patients, and co-operated fully with the study. The use of the DRDs elsewhere would be dependent on the willingness of staff to participate.

Future application

The findings have highlighted the perceived benefits of the DRDs among the Somali population, especially among older members of the community who are less likely to speak English. We would suggest that these benefits may also apply to other non-English-speaking populations, including the recent influx of new populations from the EU. The DRDs could have several uses in the health sector, to inform, to educate or to jog people's memories, and could find applications in prescribing, or giving lifestyle advice, as well as contributing to concordance with advice given during a consultation.

While the DRD's maximum recording time of one minute proved to be adequate in the context of summarising the consultation, different applications may have different recording time requirements. One GP at the practice wanted to give out more than one DRD to each patient to allow longer messages to be recorded. The cost of the DRD increases with the length of the recording time. A longer recording time may put the device out of reach of many budgets. One minute certainly gives more flexibility than most inexpensive DRDs on the market at present, which allow only 10–20 seconds to be recorded. However, technology is moving fast and it is quite likely that in the future low-cost devices will be available with a longer recording time that would give greater flexibility.

The DRDs can be re-used, as each time a new message is recorded it wipes out the old message. Their re-use is dependent on patients returning with them at their next appointment. There could be a danger in giving patients more than one device as messages could get

out of date or mixed up. Some form of labelling on the outside of the device may help overcome this problem.

Conclusion

This project looked at the benefits patients perceived of being given personalised audio information to take home with them. The results seem to indicate that for older people from this practice population, and for those with memory problems, the recordings were useful to patients.

The DRDs were reliable, used frequently and found to be acceptable. They were used to record information about appointments and medication, and patients identified other types of information they would find useful. It is also possible to see that DRDs would be equally useful in a health setting for any ethnic minority population who had problems with written or spoken English.

The feedback received from participants implies that a small investment in DRDs could have an impact on attendance rates and compliance with prescribed medication. This in turn could contribute to reducing any waste of NHS resources. A more extensive study would need to be carried out to verify this, and the cost of the DRDs would need to be considered against these additional patient benefits.

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COMPETING INTERESTS

None.

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