Computers in general practice: the patient's voice

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SUMMARY. Analysis of answers to a questionnaire on the use of computers in general practice showed that 19 per cent of patients in two practices in Staffordshire would be worried if their general practitioner used a computer to store medical records. Twenty-seven per cent of patients would be unwilling to speak frankly about personal matters to their general practitioner if he or she used a computer and 7 per cent said that they would change to another doctor. Fifteen per cent stated that their general practitioner already had information about them that they would not want to be included in a computerized record of their medical history.

Introduction

USING computers in general practice to store patients' medical histories is a controversial topic. Manufacturers put strong professional and commercial pressures on general practitioners, encouraging them to computerize their practices. The General Medical Services Committee of the BMA (Palmer and Rees, 1980) has published a report recommending that general practitioners should have independent computers in their surgeries. A club for computer enthusiasts has been launched by the Royal College of General Practitioners. Many doctors are optimistic about the improvements in medical care which emerge from using computers in general practice.

It is therefore disturbing to discover that there has been no research into the views of patients on this important subject. I therefore devised a questionnaire to find out what patients thought about computers in general practice. This is especially topical, as a recent survey *(BMA News Review,* 1980) has recommended that one hundred practices should be chosen to take part in a pilot study of the value of computers in medicine.

Methods

I asked patients attending the St Chad's Health Centre in Lichfield and the surgery in Whittington, Staffordshire, between 21 November and 9 December 1980 to complete the following questionnaire and to add any other comments they wished.

QUESTIONNAIRE

Some general practitioners are considering buying a small computer for use in their own practice. The computer would be used for storing patients' medical records, for preventive medicine (vaccination, cervical smears, blood pressure checks) and for organizing the work and finance of the practice. The advantages of a computer include the ease of finding records, comprehensive follow-up of patients and being able to call patients for medical check-ups at regular intervals. This may improve medical care.

Other general practitioners are reluctant to use computers. They fear that the confidentiality of patients' medical records may be abused. Some patients may worry that the things they tell their doctor in private will be put into the computer. They may therefore be unwilling to speak about very personal problems.

We should like to ask you for your opinion.

1. Would you be worried in any way by the use of a computer by your GP?
   YES/NO/DON'T KNOW (please cross out appropriately)

2. Are there things that your GP already knows about you that you would not want to be put into the computer?
   YES/NO/DON'T KNOW

3. Would you be unwilling to speak frankly about personal matters to your GP if he/she used a computer for keeping your records?
   YES/NO/DON'T KNOW

4. If your GP started using a computer in his/her practice would you change to another doctor?
   YES/NO/DON'T KNOW

5. Are you: Male
            Female

6. Are you: Under 25 years   25-55   Over 55
            (Please tick your own age group)

Thank you for completing this questionnaire. Please use the back of this sheet to add any comments. At present this practice has no plans to use a computer.

Patients' responses to questionnaire about using computers in general practice. (Percentages are given in brackets.)

	Yes	No	Don't know	Total
Question 1	89 *(19)*	357 *(77)*	16 *(4)*	462
Question 2	67 *(14.5)*	374 *(81)*	21 *(4.5)*	462
Question 3	122 *(26.5)*	302 *(65.5)*	38 *(8)*	462
Question 4	31 *(6.7)*	401 *(86.8)*	30 *(6.5)*	462

Results

From a total of 497 completed questionnaires, 35 were discarded because they were incomplete. Of the remaining 462, 300 were completed by women and 162 by men. The Table sets out the results.

Nineteen per cent of patients questioned would be worried in some way if their general practitioner used a computer, and 14.5 per cent knew that their doctor already had sensitive information about them that they would not wish to be entered into a computerized medical record. Over a quarter of all those questioned (26.5 per cent) stated that they would be unwilling to speak frankly about personal matters if computers were used for keeping records. Thirty-one patients (6.7 per cent) said that if their general practitioner started to use a computer then they would change to another doctor.

The results remained constant when divided into male and female patients and into the three different age groups. The only group to show a much higher percentage of those who would change their doctor were women over the age of 55; 22 per cent (5 out of 23) indicated such a preference. This is a small number and does not greatly influence the overall figures, which in other groups varied from 5 to 9 per cent. Those who would be unwilling to speak about personal matters varied from 13 per cent (women under 25 years) to 39 per cent (women over 55 years).

Eighteen questionnaires contained annotated comments from patients. The most frequent comments were about access to the computerized material and about confidentiality. Two patients stated that the computer should not be linked to any point outside the practice premises. Another wrote that he "did not wish it to end up as a kind of 1984 Big Brother State". Other comments were that "computers are less efficient than human beings" and that they should "not be used for diagnosis in any way". One patient wrote that he would want to know what was on the computer.

Discussion

Robertson (1968) wrote of computers in medicine that "some difficulties will arise during their widespread adoption" and that "computer record-keeping poses two other problems, that of confidentiality and that of accurate patient identification". He went on to say that

those patients who accepted the use of computers would enjoy a higher standard of health. Vuori (1977), who reviewed the matter of privacy and confidentiality, provided some insights into patients' views of computers in medicine. He wrote that:

"A third concern is related to the computer's ability to remember. According to the Judeo-Christian way of thinking, man should be given a second chance. The computer cannot forget and is incapable of forgiving. There is no guarantee that there will always be a government that respects the privacy of its citizens . . . The public should be told about the existence of records and systems of information relating to individuals, and be provided with an opportunity to check the accuracy, relevance and timeliness of that information."

Not everyone is certain that computerized medical records will advance health care. Mitchell (1969) believed that "the medical profession is in danger of being dazzled by optimistic claims about the usefulness of computers in case-record processing." But he did acknowledge in the same paper "that the most serious obstacle to the efficient practice of clinical medicine today, both within and outside hospital, is the difficulty of rapid and accurate communication of known facts about individual patients between one doctor and another." Gibson (*British Medical Journal,* 1973) has said that doctors would be wise to consider what was being sacrificed in order to make room for the advances in health services. Stockhausen (*British Medical Journal,* 1973) concluded that if patients thought that their records would be available to all and sundry for an indefinite period, they would stop giving their doctors information which might be indispensable in managing their illness.

A search in the *Index Medicus* (Lee-Wright, personal communication) from 1971-80 failed to uncover any references to patients' reactions to medical records, computerized or other. Some would say that this omission merely illustrates a natural arrogance on the part of the medical profession towards patients' feelings. It might be more charitable to say that, until doctors themselves are satisfied with computers, there is little point in seeking patients' opinions. However, once doctors have been convinced, it could become all too easy to assume that patients will comply with what the medical profession thinks. We live in the age of the consumer group and doctors must not forget that they provide a service which to some extent must be in tune with patients' expectations and desires. Should patients feel threatened, realistically or not, by the use of computers to store personal information, then something must be done to correct and prevent it; either we should not embark on computerization or we should undertake to allay our patients' fears and demonstrate the expected advantages in health care (*British Medical Journal,* 1976). What some patients will object to is the insensitive introduction of "incomprehensible technol-

ogy" into the intimate and non-threatening doctor-patient relationship. Patients will soon get a poorer service and doctors much less professional satisfaction if people become afraid to talk (*Journal of the Royal College of General Practitioners*, 1973).

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Acknowledgements

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The practice nurse

The activities of a nurse associated with a family practice were documented and categorized into functional activities to give a role description. Over two years, the mean distribution of her time was spent in well child care (28·6 per cent), pre- and post-natal care (14·7 per cent), health education and counselling (9·6 per cent), liaison (2·6 per cent), student education (23·7 per cent) and practice management (20·8 per cent). Two important conclusions are that her major role is in preventive care and health promotion, complementary to the role of the physician, and that her clientele is the receptive young expanding family and those with impending problems related to health hazards of lifestyles.

The major problem is the lack of an adequate system of financial remuneration for preventive care within a family medicine setting.

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