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PRACTICE OBSERVED

Practice Research

Do most practices have an age-sex register? Results of the West Midlands age-sex register study

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Abstract

A cross sectional study based on all (1260) general practices in the West Midlands was conducted in late 1984 and early 1985. Responses to a postal questionnaire were received from 762 (60·5%) practices, and of these, 387 (50·8%) stated that they had an age-sex register; 104 (13·6%) practices replied that they had definite plans to establish an age-sex register within six months, and a random sample of these was later telephoned to see if the plans had come to fruition. A random telephone sample was also made from the 498 (39·5%) non-responders. It was concluded that the current prevalence of age-sex registers in the West Midlands is 52% (±5% for 95% confidence) of all practices.

A register has now been established of 422 practices (35·5% of the total number in the West Midlands) that have an age-sex register. This is being used as a database for other research. The most common reason stated for not having an age-sex register was that it would be too time consuming. Most of the practices that had one stated that it was used for research, disease recording, screening, surveillance, or health education, which implies that the registers are being used.

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Introduction

This study was carried out on behalf of the West Midlands regional advisory group on health promotion in primary care to discover what proportion of general practices in the region had an age-sex register and what proportion was being used for surveillance, screening, and health education. It also aimed at creating a register of all practices in the region with age-sex registers so that they may be approached to assist with health promotion projects, proper evaluation of which requires an age-sex register. It was also decided to ascertain the form of the age-sex registers—for example, card index or computer—and how often they were updated and, for practices that did not have an age-sex register, the reasons.

Method

The questionnaire was first piloted on a small group of local general practices and then throughout one family practitioner committee area (Walsall). The procedure was then repeated throughout the other 10 family practitioner committee areas in the West Midlands (population five million —10% of the registered patients in the National Health Service), and consequently in total it covered all 1260 practices. The general practitioners who were serving on the regional advisory group considered that a good response rate would be obtained if practices could return the questionnaire with their general post to the family practitioner committee. In some cases a return envelope was provided. Also, to encourage a high response rate the questionnaire was brief, and doctors were advised that it took under 60 seconds to complete. It consisted of six questions with multiple choice answers, and additional space was provided for other answers or comments.

Results were entered on to a Sirius III computer using dbase II, and it could therefore be programmed both to produce the data analysis and also to hold the register of all practices with an age-sex register. The non-responding practices were identified by comparing our results with the latest medical list from each family practitioner committee. A sufficiently large stratified random sample of these practices by family practitioner committee area was chosen using random number tables, and this sample was telephoned to obtain an overall result within 5% with 95% confidence.

Practices that were telephoned were asked only whether or not they had an age-sex register.

Practices that replied that they had definite plans to establish a register within six months were also randomly sampled after six months and telephoned to establish whether or not these plans had come to fruition. This latter sample was undertaken only on the results from family practitioner committees that participated early in the study to allow sufficient time to elapse before sampling.

TABLE I—*What are the reasons for not having an age-sex register? (n=271)*

Reason	No (%)
Time consuming	144 (53·1)
Cost outlay	74 (27·3)
Financial returns do not justify time and money	61 (22·5)
Not useful	80 (29·5)
Other (or no answer)	65 (24·0)
Total	271 (100)

About one quarter of practices giving "other" reasons for not having an age-sex register stated that their list size was too small to warrant one. Roughly a third of the "other" answer group said that they planned to have an age-sex register but that it would be after six months. Included among other reasons for not having one were approaching retirement, learning of bad experiences of friends, lack of "know how," and that time and money were best spent on patient care than on statistics.

TABLE II—*What form does (or will) the age-sex register take? (n=491)*

Form	No (%) of practices with an age-sex register	No (%) of practices with plans to have an age-sex register within six months	Total No (%)
Card index	291 (75·2)	78 (75·0)	369 (75·2)
Loose leaf or book	54 (14·0)	7 (6·7)	61 (12·4)
Computer	37 (9·6)	19 (18·4)	56 (11·4)
Other (or no answer)	5 (1·3)	0	5 (1·0)
Total	387 (100)	104 (100)	491 (100)

TABLE III—*How often do (or will) you update? (n=491)*

Frequency	No (%) of practices with an age-sex register	No (%) of practices with definite plans to have an age-sex register within six months	Total No (%)
Daily	155 (40·0)	12 (11·5)	167 (34·0)
Weekly	151 (39·0)	28 (26·9)	179 (36·5)
Monthly	50 (12·9)	39 (37·5)	89 (18·1)
Yearly	10 (2·6)	5 (4·8)	15 (3·1)
Never	2 (0·5)	0	2 (0·4)
Other (or no answer)	19 (4·9)	20 (19·2)	39 (7·9)
Total	387 (100)	104 (100)	491 (100)

Practices are classified into the most frequent update group. The "other" answers were mostly from practices with an age-sex register who updated fortnightly and from practices with plans to have one but had not yet decided.

TABLE IV—*What is the age-sex register used for now (or will be when established)? (n=491)*

Use	No (%) of practices with an age-sex register					No (%) of those with definite plans to establish an age-sex register within six months (n=104)	Total No (%)
	Loose leaf (n=54)	Card index (n=291)	Computer (n=37)	Other (n=5)	All (n=387)		
Research	11 (20)	61 (21)	13 (35)	1	86 (22)	23 (22)	109 (22)
Administration (for example, capitation check)	44 (81)	242 (83)	35 (95)	4	325 (84)	78 (75)	403 (82)
Disease recording (for example, epilepsy, diabetes)	13 (24)	142 (49)	23 (62)	1	179 (46)	64 (61)	243 (49)
Surveillance, screening, or health education	32 (59)	219 (75)	36 (92)	3	288 (74)	79 (75)	367 (75)
Other	6 (11)	34 (12)	8 (22)	2	50 (13)	5 (4)	55 (11)

Many practices made specific reference to their use of the age-sex register for cervical cytology call and recall, immunisation state (especially rubella), and blood pressure screening for certain age groups. Included among the "other" uses were: repeat prescribing, epidemiological surveys, paediatric and geriatric clinics, and "making money." One practice used that the sole reason was to enable it to apply to become a training practice. Three practices replied that no use was made of it.

Results

All 1260 practices were circulated with a questionnaire in late 1984 or early 1985, and 762 (60·5%) responded. One reply only was received from each practice. Of the respondents, 387 (50·8%) stated that they had an age-sex register. Practices with no age-sex register were asked to indicate whether or not they had definite plans to establish one within six months, and 104 (13·6%) replied affirmatively.

Of the 104 practices, a random sample of 20 practices was taken from those for which six months had elapsed between receipt of the questionnaire and the analysis. These were telephoned, and 9 (45%; ±18% for 95% confidence) stated that the plans had come to fruition. All 11 of the practices that had not set up their register within six months were either still doing so or still had plans to set one up. A stratified random sample of 60 practices by family practitioner committee area from the 498 non-responders was telephoned, and 26 of these 60 practices stated they did have a register. This represents 43·3% (±11% for 95% confidence) of all 498 non-responding practices. The finite population correction has been used in the calculation of confidence limits.

Tables I-IV give the results from the detailed questions (which apply to responders to the questionnaire only), and the table titles are the actual questions from the questionnaire. The doctors who replied were asked to tick the boxes that corresponded to the answers suggested (also shown in the tables). Where the boxes marked "other" were ticked space was provided for further written details or other written comments.

The following may be stated from the results of this study to ascertain the present prevalence of age-sex registers in the West Midlands. Of those who responded to the questionnaire 387 practices are known to have an age-sex register, and 35 practices are known to have a register from the random telephone sampling. These 422 (33·5% of the 1260 practices in the West Midlands) practices are now listed on a register, and this is being used as a database for research. Adding in the prevalence rates from the sampling results gives the overall number of 650 (52%±5% for 95% confidence) practices out of the 1260 practices in the West Midlands with an age-sex register.

Although the random sampling groups were not large, and therefore had wide confidence limits, the overall result is given to within 5% for 95% confidence since the numbers in the sampling frames for these samples (498 and 104) were less than half of all the practices in the West Midlands. Consequently, these results from the sampling have less effect on the overall result. Also, the sample for practices that had plans for an age-sex register was drawn only from the family practitioner committees that participated early in the study. This group, however, represented only 8·3% of all the practices in the West Midlands, and therefore any bias in its sampling frame would have little effect on the overall result for the prevalence of age-sex registers.

Discussion

A pattern for age-sex registers in Britain was first described in 1963[1] and a method for enabling practices to "evolve" an age-sex register outlined by Pinsent in 1968.[2] Their importance as a useful

tool in general practice has been discussed,[3] and it is now a requirement for every training practice to have one.

Suggested uses for age-sex registers fall into four main categories. It was considered useful to ascertain from this questionnaire what proportion of the age-sex registers is being used for each category.

(1) Research. Studies, for example, that investigate the prevalence of a phenomenon need accurate information about the population at risk.

(2) Administration. Item of service payments for cervical cytology, contraception, and immunisation mean that it can be financially rewarding to recruit patients using an age-sex register as well as providing a good service to patients on the list. Differential capitation fees for different age groups may mean that practices with an age-sex register can monitor their income.

(3) Morbidity index. Disease and condition recording can be used to set up special clinics or to target non-attenders who need follow up. Examples include patients with diabetes, hypertension, and epilepsy, and those who have had thyroid and gastric surgery who may be called or recalled.

(4) Surveillance, health education, and screening. Groups of patients can be targeted—for example, to identify girls aged 10-12 for rubella vaccination or to screen people aged between 30 and 60 for hypertension.

The accuracy of age-sex registers in general practice has been investigated,[4] but there is little information on the actual prevalence of such registers. Of 1260 practices in the West Midlands, 158 are training practices, and therefore at least 12·5% of practices should have age-sex registers. The overall conclusion from this study is that half of all practices currently have an age-sex register (52%±5% for 95% confidence). This is far more than I and colleagues had believed to be the case beforehand.

The high response rate to the postal questionnaire (60·5%) was attributed perhaps in part to the brevity of the reply form. Of 80 practices telephoned, none refused to answer the inquiry, and only one was unobtainable after more than five attempts. It is interesting that 50·8% of respondents had an age-sex register compared with 43·3% of the sample of non-responders, but this difference was not significant ($\chi = 0{\cdot}96$; $p > 0{\cdot}3$).

The most common reason among responders for not having a register was that it was too time consuming (table I). Most age-sex registers were in the form of a card index. Computerised registers made up only 9·6% of the current total, but 18·3% of those practices that intended to set up a register planned to use a computer. Updating was carried out daily by two fifths of the practices and weekly by two fifths. In retrospect, however, this question should perhaps have been applied to each of the answers in table IV, as, for example, a practice that undertakes disease recording might do this monthly and perform the administrative function daily.

Many people believe that existing age-sex registers are not actually being used. The responses shown in table IV indicate that a large proportion is being put to good use: 46% of practices with a register stated that it was used for disease recording, and 74% said that it was used for surveillance, screening, or health education. It is unlikely that practices would state anything other than "administration" if they were not using their register for the uses indicated. For each category of usage the computerised registers were used more than card indexes, which in turn were used more than loose leaf indexes.

It is a tribute to primary care in the West Midlands that half of all practices currently have an age-sex register. There is no reason to suppose that the West Midlands has a higher prevalence than other areas in Britain. The recent tendency for family practitioner committees to become computerised should facilitate practices starting an age-sex register using a printout from the family practitioner committee computer. This would overcome the largest stated barrier to setting up a register: that it is "too time consuming."

I thank all the family practitioner committee administrators and their staff for distributing and collecting the questionnaires; Rowan Goode for patiently entering the data from the responses on to the microcomputer; and Julie Grant for typing the manuscript.

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100 YEARS AGO

The publication of the official report of the Educational Department affords evidence of the opinion of the chief inspectors on the question of overpressure. According to the condensed extract published by the *Globe*, several of the chief inspectors manifest a disposition to minimise complaints on the subject, and one or two of them contend at length that the evil does not exist at all, or that it is of much smaller dimensions than has been commonly imagined. This appears to be Mr. Alderson's view, but he cites, nevertheless, the testimony of some of his colleagues on the other side. One of these, Mr. Howard, says "The working of the new code seems to be telling on the health of teachers generally. Complaints of overstrain are very general, and I have never known so much illness among the teachers in this district as during the past year." Mr. Burrows, reporting on the Southampton schools, is compelled to state it as his decided opinion "that, partly because many children now come to school in an absolute state of starvation, partly because many children are now to be prepared for examination who never attend regularly, the requirements in many cases, both in town and in country, bear too hardly both on teachers and children." He adds that he could give "a great deal of very painful evidence on this point." As an instance, he mentions that a very large number of children came to his inspection in Southampton who had not broken their fast since five o'clock on the preceding day and who had not eaten meat for three days. That it was "terribly painful" to have to examine such unfortunates will be readily believed. Another of Mr. Alderson's colleagues, Mr. Codd, has no hesitation in saying that the pressure is greater on girls than on boys. It is only fair, after quoting these extracts, for the opportunity of doing which we are indebted entirely to Mr. Alderson's candour, to add that he does not think they warrant the belief that overpressure exists in such a degree as to call for general anxiety. The practices of keeping and working overtime are, there is reason to hope, diminishing in frequency. Mr. Blakiston, reporting on the north-eastern counties, says that where teachers have followed the advice given them not to work overtime, the result has been increased efficiency in school, and the enjoyment by teachers of better health. But reform is still wanted in these respects in the districts concerned, for another inspector writes that keeping in is very largely practised, and that he often sees teachers going home late, and hears of schools where the average day's work lasts six hours and a half. One would have been glad to hear that the practice of enforcing home-lessons has been generally given up, but on that subject the reports are silent, so far as we are permitted to know their contents. That there is danger of over-pressure is admitted even by inspectors who do not believe in its widespread prevalence. For example, Mr. Fowler, inspector of the Stoke-upon-Trent district, thinks all will be well "where the teaching staff is strong, the management active and intelligent, and the instruction given in a steady, persistent fashion throughout the whole year." Doubtless; but one would like to have Mr. Fowler's opinion as to the percentage of schools in which all these conditions are realised. (*British Medical Journal* 1885;ii:457.)

The Town Council of Moscow having refused to water the streets, the Governor-General applied to the Society of Russian Physicians for their opinion on the subject. They replied that it was necessary for the public health that the streets should be watered. It remains to be seen whether the Town Council will accept the opinion of the profession, or act according to their own antiquated notions. (*British Medical Journal* 1885;ii:70.)

Essays on Practice

Should nurses practise prevention?

W REITH

In the lay and medical press recently it has been suggested that the role of the nurse in general practice should be extended. For example, patients should be able to refer themselves directly to the nurse, nurses should be able to prescribe medicines from a limited formulary, and they should provide more anticipatory care. Although many general practitioners have expressed opposition to these ideas, it is appropriate and important for such a discussion to take place for different models of care may follow and patient care may be improved.

The number of nurses employed by general practitioners has been steadily growing, and the changes which the practice nurse is bringing are far reaching. Her role in general practice, however, is still largely undefined. We know some of the reasons for the evolution of the practice nurse and some of her characteristics,[1] but do we know what her duties and responsibilities are? If the nursing and medical professions defined the nurse's role better her integration into general practice may be less haphazard than it has been and her full potential more likely to be realised.

District nursing staff who are attached to a general practice generally have well defined roles, facilities for further education, and an effective management structure. In contrast the special skills and needs of the practice nurse have received little attention from general practitioners and nurse managers. Her duties have developed idiosyncratically, depending on the general practitioner's perception of her role and her desire to do practical tasks to help ease the general practitioner's workload. She may have had little training in general practice either before or after starting work, she may have little personal or professional contact with other nurses in the practice, and she may find that there are difficulties relating to different general practitioners, the practice manager, the reception staff, and the attached nursing staff. All of these factors will hamper her work and development unless they are satisfactorily resolved.

Preventive care is undoubtedly a fundamental part of general practice in the 1980s. General practitioners have created a suitable environment for preventive work by improving premises and equipping treatment rooms, providing more effective management and communication within teams, and improving records and recall systems. To provide an effective preventive programme much information must be collected and recorded and advice and information given to patients. These tasks often appear overwhelming, and general practitioners themselves have been unable to fulfil them. Trained nursing staff, however, can carry out good preventive work.

The challenge of anticipatory care is greatest for coronary heart disease and smoking. More and more patients are seeking advice about diet and exercise. Nurses can make a considerable impact in activities such as screening and health education. They can record blood pressure readings and smoking, alcohol, and dietary habits and offer appropriate advice and follow up to patients. In fact all members of the primary health care team must participate more, agreeing on priorities and, working together, put across the same message in practical terms to the general public.

Pritchard has described a two day programme of training in prevention that was attended by 180 practice nurses.[2] Lectures on topics such as smoking (particularly appropriate to a nursing audience, as recent estimates suggest that over half of nurses smoke), nutrition, advice on exercise, immunisation, contraception, and prospects for avoiding cancer in the future were supplemented by a practical session on blood pressure measurement. Participants were encouraged to report on their work in preventive care in their practices.

Mrs Ainna Fawcett-Henesy, of the Royal College of Nursing, emphasised the need for further appropriate training and encouraged nurses to take more responsibility for their own education and development. She said that one of the main activities in which the nurse could make a valuable contribution was prevention. Further emphasising the nurse's importance in this, Miss Elaine Fullard, the director of the Oxford Prevention of Heart Attack and Stroke Project, reported on the role of the "facilitator," who trains reception and nursing staff in how to invite patients for an opportunistic health check. Nursing staff were given advice on how to measure blood pressure and training in health education counselling. Particular attention is being given to preventing arterial disease, and it seems that the facilitator has helped practices to improve the recording of risk factors. District health authorities might help general practitioners and primary care teams to reorientate their work towards anticipatory care by appointing a facilitator. The cost effectiveness is being assessed in the Oxford project. The project also aims at producing a model of anticipatory care that practices can use. In consultation with nurses general practitioners and nurse managers are identifying ways of extending the nurse's role, and they are then offering nurses suitable training. Thus nurses in the Oxford region are carrying out preventive work.

What of the rest of us?

I thank Mrs Sylvia Chrystal for secretarial help.

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100 YEARS AGO

Few persons, in this country at least, have any idea how terribly fatal the last Turkish war was to the medical officers of the Russian armies. A memorial of this fatality has just been erected in the Alexandrovski Square, Sophia, in the form of a pyramid of rough stones, on each of which is engraved the names of several of those who are commemorated. The base is of hewn stone, with the following inscription. "Meditsanskim Chinam Pogibshim v Turetskuyu Voinu, 1877-78." (To the medical officers who died in the Turkish war, 1877-1878.) The number of names is 531. (*British Medical Journal* 1885;ii:1125.)