

Group health education in general practice

MICHAEL WHITFIELD, M.A., M.B., M.R.C.G.P., D.P.H., D.C.H.

General practitioner, Bristol.

SUMMARY Two simple experiments in group health education in a general practice are described. The first was with parents of young children in which an attempt was made to encourage self-sufficiency and a better use of the health services. The second was with a group of male bronchitics who were encouraged to alter their behaviour in an attempt to improve their health.

Both experimental and control groups showed similar consultation rates after the educational sessions and there was little evidence of changed behaviour. I have found no evidence to encourage the use of such methods in general practice.

Introduction

Doctors have often felt that they ought to be able to influence the behaviour of patients towards healthier living. This feeling may have originated from a desire for less work on the part of the doctor or for the more altruistic reason of preventing ill-health. Whatever the reason there have been numerous attempts at altering patients' behaviour.

In the twentieth century the first major attempt was probably the publication of *Secret Remedies* by the British Medical Association in 1909. According to Dukes (1963) this was an attempt to reduce the amount of self-medication by showing in detail the content of these secret 'remedies', their ingredient costs and their likely effects. Dukes states that far from ensuring a reduction in self-medication the total money spent on self-medication continued to rise and some people found the recipes in the book suitable to compound themselves.

When a patient consults a doctor there are often instances when the doctor considers it appropriate to advise on a change in behaviour. He may consider it appropriate to advise the patient to stop smoking, to lose weight, or to move to a different climate. Some doctors have claimed success (Pike, 1965; Hasler, 1968), others complete failure (Porter and McCullough, 1972).

The Cohen Committee's report on Health Education (1964) commended the experimental group health education that Dr L. A. Pike was attempting in Birmingham (1959). Since then others (McCoy, 1968; Hasler, 1968) have also reported their attempts at influencing the behaviour of groups of their patients. All have reported the content of the sessions but there has been little attempt at evaluating their effect. One experimental clinic was described by Wood and Meadows (1963). Over a short period they claimed two thirds of their bronchitic patients stopped or reduced their cigarette smoking and that many patients followed the advice they had been given. This was not using a general-practice population.

Pike (1969) circulated a questionnaire to 526 general practitioners asking how many of them carried out some formal health education. Twenty-three per cent stated that they did some and eight per cent gave formal lectures to their patients.

It seemed appropriate to investigate the effect of group health education in general practice, for what is the purpose of expending effort unless there is a measurable effect resulting from it?

Two groups of patients were chosen: parents of children who were less than one year of age at the time and a group of 40 male bronchitics between the age of 40 and 65

years. The practice has been described in a previous paper (Whitfield, 1973) and the relatively small number of children mentioned.

EXPERIMENT (1)

AN ATTEMPT TO IMPROVE THE ABILITY OF PATIENTS TO MANAGE MINOR ILLNESS IN THEIR CHILDREN WITHOUT RECOURSE TO THE MEDICAL PROFESSION.

Method

In 1970 all children less than a year of age who were registered with the practice were divided randomly into two groups: the experimental and the control group.

The parents of the children in the experimental group were invited to attend the surgery on a Saturday morning or afternoon and were instructed in three main subjects:

- A. Management of the common cold, its natural history, complications and how to recognise them. The value and limitations of antibiotics and when to contact the doctor.
- B. Management of simple gastrointestinal upsets, i.e. diarrhoea and vomiting. Advice to restrict solids and when to call the doctor.
- C. The necessity to have immunisations and our willingness to do these at the surgery rather than attending the local infant welfare clinic.

I conducted the lecture and encouraged questions and discussion throughout. The session lasted one hour and the average number of parents attending each session was eight.

During the next year all the childrens' consultations were recorded for both the experimental and the control group. The children in the experimental group were subdivided into those whose parents had attended the sessions and those who had not. A similar experiment was conducted in 1971.

Results

(A) 1970 *experiment*

The 57 patients were randomly divided into two groups: 30 experimental and 27 control. Of the 30 families who were invited 15 were represented at the educational sessions. The results are shown in table 1. It is shown that there is no significant change in the consultations of the experimental group compared with those of the control group after the health education. Coryzal consultations were those where a parent has brought a child who had coryzal symptoms and was afebrile and not ill-looking. Gastrointestinal consultations were those where the child had had diarrhoea or vomiting or both and did not look ill.

(B) 1971 *experiment*

Of the 16 sets of parents who did not attend although invited, three included a parent who was a doctor. The results are shown in table 2.

It will be seen that in both years there is no consistent pattern following the health education sessions. The only thing that can be said is that fewer consultations were made by those children whose parents chose not to attend the educational sessions.

EXPERIMENT (2)

AN ATTEMPT TO IMPROVE THE KNOWLEDGE OF A GROUP OF MALE BRONCHITICS, TO MODIFY THEIR SMOKING HABITS AND BY DOING BOTH OF THESE TO REDUCE MORBIDITY.

Method

In 1971 all males in the practice aged between 40 and 65 years were invited to complete a modified Medical Research Council (1960) symptoms questionnaire. Eleven per cent of the 591 patients who were traced refused to be interviewed and eight per cent could

TABLE 1
RESULTS OF EDUCATING PARENTS IN 1970

	<i>Consultations 1970-71</i>					
	<i>Number of children</i>	<i>Coryza</i>	<i>Gastrointestinal upset</i>	<i>Other disease</i>	<i>Immunisation</i>	<i>TOTAL</i>
1. Experimental (parents attended)	15	8	2	28	23	61
2. Experimental (parents did not attend)	15	12	6	19	8	45
Total	30	20	8	47	31	106
3. Control	27	20	6	63	44	128

TABLE 2
RESULTS OF EDUCATING PARENTS IN 1971

	<i>Consultations 1971-72</i>					
	<i>Number of children</i>	<i>Coryza</i>	<i>Gastrointestinal upset</i>	<i>Other disease</i>	<i>Immunisation*</i>	<i>TOTAL</i>
1. Experimental (parents attended)	14	4	4	31	13	52
2. Experimental (parents did not attend)	16	2	4	33	9	48
Total	30	6	8	64	22	100
3. Control	23	9	9	37	15	70

*There may have been under-recording by the practice nurse in the patients' records for this year.

not be contacted. Four-hundred-and-forty-eight patients were interviewed and of these 41 were termed bronchitic, i.e. they coughed up sputum for a period of three months in a year. These figures can be compared with the population of a Smethwick (Birmingham) practice, contacted at the same time, where 101 out of the population of 342 had bronchitic symptoms.

This group of 41 bronchitics was randomly divided into two groups—the experimental group and the control group. The patients in the experimental group were invited to the surgery on two occasions six weeks apart. On the first occasion (a Saturday) I told them about the known causes of bronchitis and the way it is affected by smoking and environmental factors. Some mention was made of pathology. Emphasis was laid on stopping smoking, keeping bedroom windows shut at night, avoiding crowded places during influenza epidemics, treating the earliest signs of purulent sputum with

antibiotics and taking advantage of influenza immunisation. The Wright peak expiratory flow meter was used to demonstrate how much their lung function was reduced.

The second occasion, six weeks later, was an opportunity to invite the group to be immunised against influenza and to use the example of one of the group, who had fortunately stopped smoking and whose peak flow rate had increased, to encourage the rest of the group. Each session lasted one hour. The Health Education Council's booklet *How to stop smoking* was also distributed.

The morbidity of both groups was recorded during the next year.

Eighteen months after these sessions, members of both bronchitic groups were sent a questionnaire asking for their present smoking habits and for information about the cause, effects and treatment of bronchitis. This questionnaire was derived from questions used by Ley and Spelman (1967).

Results

Of the 41 bronchitics included in the experiment:

- One was a non-smoker,
- Eight were ex-smokers,
- Nine smoked the equivalent of 0-9 cigarettes a day,
- Ten smoked the equivalent of 10-19 cigarettes a day,
- Six smoked the equivalent of 20-29 cigarettes a day,
- Seven smoked the equivalent of more than 30 cigarettes a day.

Four patients were excluded from the experiment; two had moved from the area since the survey and two had misinterpreted the questionnaire and certainly did not have bronchitis. The remaining 37 patients were divided randomly into two groups. The 19 men in the experimental group had a mean date of birth of 1913·4; the 18 in the control group had a mean date of birth of 1913·0. During the previous year the men in the experimental group had attended the doctor on 89 occasions (25 of which were for respiratory disorders). The control group had attended 75 times of which 15 were for respiratory disease.

In the year after the health education sessions in 1971, when 80 per cent of the experimental group attended, the men of the experimental group attended 36 times (15 for respiratory disease) and there were, in addition, 16 attendances for influenza immunisation. The control group had 33 consultations of which 16 were for respiratory illness. Three attended for influenza immunisation.

The questionnaire sent to both groups 18 months after the sessions showed the following answers in reply to the following open-ended questions. They are compared with the figures quoted by Ley and Spelman.

A. *What is the cause of bronchitis?*

	Experimental group	Control group	Ley and Spelman
1. Air pollution	1	2	23
2. Cigarette smoking	4	4	12
3. Frequent colds	1	1	7
4. Dampness	-	3	2
5. Infection	-	-	1
6. Asthma	1	-	1
7. Lung damage	1	-	1
8. Don't know	2	3	9
9. Mucus in tubes/congestion	3	2	-
10. Hereditary	-	1	-

B. *What are the early symptoms of chronic bronchitis?*

1. Cough	7	6	36
2. Difficulty in breathing	6	7	13

3. Soreness in chest	2	—	3
4. Frequent colds	—	—	3
5. Phlegm	5	1	1
6. Fever	—	—	1
7. Do not know	1	4	6
C. <i>How is chronic bronchitis treated?</i>			
1. Drugs	5	5	12
2. Change of climate	3	1	7
3. Rest	—	—	7
4. Give up smoking	5	2	4
5. Cough mixture	—	—	4
6. Warmth	2	2	3
7. Oxygen	—	—	1
8. Keep free from colds	2	—	—
9. Physiotherapy (pummelling and breathing exercises)	—	3	—
10. Do not know	1	3	21

One of each group had died before the questionnaires were sent out and some respondents included more than one answer to the questions.

When the smoking history is examined the results are most disappointing. Of the experimental group only two had reduced their smoking substantially, i.e. more than one or two cigarettes a day; one from 30 to 20 per day and the other from 30 to 15. One had confessed to increasing from 10 to 20 a day.

Of the control group only one had reduced, from 50 cigarettes a day to none (but he had been severely ill with pancreatitis). Three had increased; one from 15 to 30, one from 15 to 18 and one had re-started smoking from nil to 15. The remaining patients had not changed.

Discussion

With increasing epidemiological expertise certain facts have become known about the causation of illness for which no effective cure exists. One such illness is chronic bronchitis. The association of heavy cigarette smoking with the illness is well established (Fletcher, 1968), as is atmospheric pollution.

Attempts to persuade healthy people to give up smoking cigarettes have had little success. In Edinburgh a major campaign for six months using a battery of publicity and educational techniques not only failed to bring about a decrease in smoking but even failed to change attitudes towards smoking. Schwartz (1969) reviewed many investigators who had tried numerous methods of reducing cigarette consumption. He concluded that "few have shown high success rates but their combined activities have contributed to the anti-smoking climate which affects non-participating smokers and youth who have not yet taken up the habit." Physical discomfort or illness was the leading cause for stopping cigarette smoking in 50 per cent of Trahair's survey (1967) and in 75 per cent of Mausner's (1970). All other reasons were cited much less frequently.

It has been shown (Pincherle and Wright, 1970) that individual doctors vary in their ability to persuade people to stop smoking. In their series there was a difference between "best" doctor and the "worst" at persuading people to stop smoking of 35 per cent stopping to 17 per cent stopping. The authors showed that the effectiveness of the doctor depended on his present and past smoking habits.

In general practice Porter and McCullough (1972) showed that over two years randomly selecting people to counsel against cigarette smoking and to leave uncounselled resulted in no significant difference between the two groups. It is worth noting that Porter was an ex-smoker and according to Pincherle and Wright less likely to have any effects.

What of the smokers themselves? Eysenck *et al.* (1960) claimed that they conform

to a different personality type from non-smokers. Dunnell and Cartwright (1972) state that "many smokers recognise that the habit causes such symptoms as cough, phlegm and bronchitis, but this understanding is not enough for them to give up smoking. They just never embark on, or they abandon any attempt to relieve their symptoms with medicines. Such fatalism may make them immune to logical arguments about risks."

With this depressing review of the literature in mind, this survey has shown a similar lack of success at altering patients' behaviour and knowledge despite all the patients having symptoms. The fact that the counselling and lecturing was being done by a doctor known to most of the patients, who was a non-smoker, and who was going to see them on occasions in the future did not make much difference. A few patients modified their behaviour and a few claimed they learned something. There was general agreement that the sessions were useful and there were no criticisms at the time.

The fact that the number of patients in the experiment was small and that the follow-up was unsophisticated and only over a short period of time is accepted. None the less I believe that this experiment shows that little obvious effect can come from occasional group sessions as described above. Whether education continued longer term and followed up over a longer period is more effective remains to be seen. These results differ from those found by Wood and Meadows (1963) who had much better effect on reducing cigarette consumption. This may have been because the course described was of six sessions, that patients were specifically selected for the clinic by general practitioners and chest clinics, or that they were encouraged by the beer in the interval! As they concede, the organisation of a clinic such as theirs is probably beyond the enthusiasm of most general practitioners.

General practitioners differ in their understanding of what constitutes a trivial consultation (Cartwright, 1967). Dunnell and Cartwright (1972) state that one tenth of the general practitioners they interviewed thought that nothing should be done to reduce the number of consultations for minor ailments. The most frequent suggestion made by the others was health education. Fifteen per cent suggested that education of patients by their own general practitioner was needed; 33 per cent suggested general health education by local authorities and other bodies. These educational means were more often mentioned than financial disincentives—some form of which was mentioned by a quarter of the doctors.

Dunnell and Cartwright also state that one fifth of doctors under 40 thought that education of the patients by the general practitioner would reduce consultations for ailments people could self-treat. This proportion diminished as the groups of doctors got older.

Consultations for the non-febrile common cold in children and for minor gastrointestinal upsets could well be considered trivial or minor complaints. Certainly education of the parents made no difference to the incidence of those consultations in my practice. This finding helps confirm the belief of many general practitioners that these 'trivial' complaints indicate a parental desire for consultation rather than any deep concern for the child's illness. It further emphasises the necessity for all doctors to examine fully the reasons for a consultation when a child's illness is presented as the primary complaint.

What then is the future for health education within general practice? Different doctors have different effects on single doctor-patient health education—some are successful, others unsuccessful. Clearly there is a need to evaluate these different results using advanced behavioural scientific techniques.

Group education, as described above, appears to have no more effect on behaviour than any of the other limited health education exercises. Whether health education continuing over a long period proves more effective remains to be seen.

Acknowledgements

I am grateful for the help of Dr J. Dale, Director of the Research Division of the Health Education Council in selecting patients for the study. I am grateful too for the financial assistance I received from the South West Regional Hospital Board.

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APPOINTMENT SYSTEMS

It was suggested by the Casualty Surgeons Association that one answer to the problem of casual attendance was some change in the appointments system. Patients wished to be seen by their doctor within 24 hours and if an inflexible appointments system did not allow this, they would naturally go to the accident and emergency department.

The Royal College of General Practitioners agree that many appointments systems were "not very efficiently operated" though there were also a great many which were operated extremely efficiently. A research unit at Birmingham had now devised an evaluation kit whereby doctors could apply a print-out showing the waiting intervals and how many casual attenders could or could not be fitted in. "We recommend that all general practitioners be encouraged to use this evaluation kit so that the most efficient appointments system possible might be achieved."

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