A study of patients attending without appointments in an urban general practice

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Abstract

Objective—To ascertain which social and psychological characteristics are associated with patients attending surgeries without appointments.

Design—Prospective study of patients attending an urban centre group practice.

Setting—Urban health centre group practice with five doctors and 12 000 patients in an area of high (>20%) unemployment and social deprivation.

Patients—All attenders at the open access surgery and one in four consecutive attenders by appointment, selected sequentially from the first three appointments, during 10 days in January 1989. Patients participating in the pilot study, reattending during the study period, or attending antenatal clinics were excluded.

Main outcome measures—Patients' attitude to making appointments and reasons for attending, including perception of urgency, with respect to sociodemographic and psychosocial data obtained from a self completed questionnaire before the consultation. Doctors' diagnosis and perception of urgency obtained from a separate questionnaire.

Results—86% (141/172) Of patients attending without appointments and 96% (139/145) with appointments responded to the questionnaire. The need for consultation was considered to be "very urgent" or "fairly urgent" in significantly more of the open access group than the appointments group (89%, 124/139 *v* 66%, 91/138; $\chi^2=27{\cdot}04$, df=3; $p<0{\cdot}001$), although the doctors did not share the same views. Significantly more patients had self limiting conditions of recent onset in the open access than in the appointments group (75%, 101/135 *v* 48%, 59/123: $p<0{\cdot}001$). Overall, open access attendance was significantly linked with social support (39%, 48/124 *v* 26%, 32/123; $p<0{\cdot}05$) and with marital separations or intentions to separate (10%, 9/87 *v* 0/92; 47%, 32/87 *v* 22%, 20/92 respectively; both $p<0{\cdot}001$), but the doctors recorded significantly fewer psychological and social problems in these patients ($p<0{\cdot}05$). Although almost half those in the appointments group considered that making appointments was inconvenient, more of those in the open access group agreed with this view (47%, 60/129 *v* 61%, 80/131).

Conclusions—There was an important link between social support problems and a negative attitude to making appointments. In our previous experience encouraging patients to make appointments has been unsuccessful; practices serving areas with a high prevalence of social deprivation providing a mixed open access and appointments system may better serve patients' needs.

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Introduction

Patients attending the surgery without an appointment are often reported as being a source of irritation[1] and sometimes acquire the derogatory label of "casuals." Such patients might have to be either fitted in as extras or seen in an open access surgery, and they constitute about 15% of the surgery workload (C J Watkins, unpublished data). Between 8% and 14% of practices operate a mixed system whereby some of the surgeries are open access.[2,3]

Studies comparing patients asking to be seen without an appointment (sometimes known as "fit ins") with those who make appointments show some interesting differences. Field showed that, although almost half of patients without appointments were children, patients with new problems were more likely to present in this way than those presenting for follow up.[1] Such patients also received more prescriptions than appointment attenders (but had the same rate of referral) and despite doctors considering them to be a source of annoyance they were not seen to have made inappropriate use of the services. Taylor found that there were notable differences between patients attending by open access and those attending by appointment, principally in age, social class, and presenting complaint.[2] Lower social class and acute illness were predisposing factors in patients attending without an appointment.

Although studies have described the social characteristics of open access attenders they have not examined the reasons for the propensity of such patients to seek medical help (or illness behaviour as it is more usually known[4]). This study was designed to investigate whether failure to make an appointment was associated with the presence of psychological problems and whether patients' perception of urgency provided a trigger resulting in the demand for professional advice.

Patients and methods

The study was conducted in a practice of five doctors serving 12 000 patients in Peckham, London. This is a socially deprived area with a high level of unemployment (>20%). Almost 80% of the practice population live in council accommodation, mainly high rise and of poor quality, and nearly 35% belong to the ethnic minorities and are mostly of Afro-Caribbean origin. For the past decade the practice has offered a daily open access session between 4 pm and 6 30 pm in which the duty doctor sees all patients wishing to be seen urgently without an appointment, leaving the other doctors to consult only those patients who have appointments.

A structured questionnaire for completion by the patients was designed and piloted for this study, and included questions on attitudes to making appointments (for example, "making appointments is a hassle"), perceived urgency and description of the index problem, and demographic details. A combination of the 12 item general health questionnaire and the

social problems questionnaire was used to detect psychosocial disturbance.[5 6] The social problems questionnaire is a 21 item self completion questionnaire that contains questions on housing, work, finances, social contacts and relationships, and marital problems.

All attenders at the open access surgery and one in four consecutive attenders by appointment were sampled over a 10 day period in January 1989. To avoid the bias of the first patient of each appointment surgery always being selected, the starting point was sequentially selected from the first three appointments. Patients were excluded if they had participated in the pilot study, reattended during the study period, or attended the antenatal clinics. Patients who attended during the morning appointment surgeries without a prior appointment and who could not return for the open access surgery in the afternoon were also excluded. Patients or parents, if the patient was a child, were asked to complete the questionnaire while waiting to see the doctor. After the consultation the doctors completed a short questionnaire in which they disclosed the main diagnosis and whether they considered the basic problem to be essentially biomedical, social, psychological, for certification, or other.

Unless stated otherwise, the χ^2 test with a significance level at 5% (with Yates's correction for the 2×2 case) was used for statistical analysis.

Results

A total of 141 out of 172 (82%) patients in the open access group and 139 out of 145 (96%) in the appointments group completed the questionnaire. There was therefore a lower response rate among the open access sample, mostly owing to mothers with small children who either found it impossible to complete the questionnaire or simply declined. Table I shows that there was no significant difference in the age and sex distribution or in the doctor's main diagnosis between the respondents and the non-respondents.

As consultation patterns are affected by sociodemographic characteristics of patients such as age and sex the distribution of these characteristics was compared between the patients in the open access and appointment groups. Table II shows that those in the open access group were significantly more likely to be female and that those aged over 45 showed a significant tendency to use the appointment system. Using midpoints of the age ranges and a value of 80 for the 75 and over age group calculated the arithmetic means and standard deviations for the two groups. A significant difference was found between the mean age in the two groups (30·8 *v* 40·3, $p<0·001$, *t* test). Marital state, ethnic group, and home tenancy or ownership were not significant. Married women with children showed no preference between open access surgeries and appointment only surgeries, but nearly twice as many single women with children attended open access surgeries in preference (whether accompanied or unaccompanied by a child) (table II), and this difference was significant ($\chi^2=5·89$, df=1; $p<0·05$). Ten single parent men who attended in the study period showed a reverse pattern: six came with an appointment and four came without. Open access was the preferred route for those accompanying a child needing medical attention.

The accessibility of the surgery was studied by asking patients whether they had used a car to get to the surgery; fewer patients in the open access group had done so. Patients were also asked whether they had a telephone at home to allow them to make appointments; there was no significant difference, however, in telephone ownership between the two groups (table III).

The perception of urgency between the two groups was significantly different (table IV): in the open access group 89% (124/139) considered their need for consultation to be "very urgent" or "fairly urgent" compared with only 66% (91/138) in the appointments group ($\chi^2=27·04$; df=3; $p<0·001$). Perception of urgency was also cross tabulated with the duration of the presenting problem. There was no difference between the two groups in perceived urgency when the onset of the presenting symptoms had been either zero to two

TABLE I—*Age, sex, and doctor's main diagnosis for respondents and non-respondents*

	Respondents	Non-respondents
*Sex and age characteristics**		
Male:		
No (%)	81 (30)	11 (30)
Average age (years)	39	31
Female:		
No (%)	190 (70)	26 (70)
Average age (years)	35	33
Total	271	37
Sex not disclosed	9	
Total usable sample	280	
Doctor's main diagnosis†		
Self limiting	160	20
Chronic	34	7
Psychosocial	18	3
Other	47	7
Total‡	259	

*$\chi^2=0·70$, df=1, NS.
†$\chi^2=1·17$, df=3, NS.
‡Some patients received no diagnosis.

TABLE II—*Sociodemographic characteristics of patients and whether consultation was for child or parent. Unless stated otherwise figures are numbers (percentages)*

Characteristic	Open access group (n=141)	Appointments group (n=139)	Significance
Sociodemographic data			
Sex:			
Male	34 (25)	47 (36)	
Female	105 (76)	85 (64)	p<0·05
Total	139	132	
Age (years):			
16-20	19	5	
21-24	29	18	
25-34	48	40	
35-44	28	22	
45-54	5	16	
55-64	4	13	
65-74	1	7	
≥75	1	7	
Mean (SD)	30·8 (11·2)	40·3 (16·8)	p<0·001*
Total	135	128	
Marital state:			
Married	61 (46)	73 (56)	
Single	49 (37)	42 (32)	
Divorced or widowed	23 (17)	16 (12)	NS
Total	133	131	
Ethnic group:			
White	92 (69)	94 (72)	
Afro-Caribbean	35 (26)	29 (22)	
Other	7 (5)	7 (5)	NS
Total	134	130	
Housing:			
Rented accommodation	122 (89)	114 (86)	
Owner occupier	15 (11)	19 (14)	NS
Total	137	133	
Attended for self or child			
Self	86 (61)	124 (91)	
Accompanied child	54 (39)	13 (10)	p<0·001
Total	140	137	
Women with children			
Single	37 (47)	18 (31)	p<0·05
Married	41 (53)	41 (70)	
Total women	78	59	

**t* test.

days or three to seven days previously but an appreciable difference when the symptoms had been present for more than seven days; nearly 85% (28/33) in the open access group considered the need for consultation urgent compared with only 57% (38/67) in the appointment group ($\chi^2=6{\cdot}60$; df=1; $p<0{\cdot}05$). When patients' perception of urgency was compared with that of the doctors with McNemar's test[7] there was a significant level of disagreement in both groups ($p<0{\cdot}001$) (table IV). Patients and doctors did not agree on the urgency of a presenting problem, patients being more likely to perceive their problem as urgent than the doctors.

The doctors' main diagnoses were grouped into four broad classifications—namely, minor and self limiting, chronic, psychosocial, and other. As expected, in the open access group significantly more patients had minor, self limiting ailments of a more recent onset (table V).

Overall, open access attendance was significantly linked with social support (39%, 48/124 *v* 26%, 32/123; $p<0{\cdot}05$) as identified by the social problems questionnaire and with marital problems in which separation had occurred recently or had been considered (10%, 9/87 *v* 0/92; 47%, 32/87 *v* 22%, 20/92 respectively; both $p<0{\cdot}001$). There were no significant differences between the two groups for other social characteristics—namely, finance and housing problems—or for scores in the general health and social problems questionnaires (table VI). Although almost half of those in the appointment group considered that making appointments was inconvenient, the open access group contained significantly more respondents who held this view (47%, 60/129 *v* 61%, 80/131; table IV). Similarly, when patients with social support problems were selected for analysis those with this view were significantly more likely to have attended without an appointment. When the groups were analysed separately in terms of their perception of urgency, however, inconvenience was no longer a significant determinant of attendance with or without appointments. On the other hand, in those patients who had social support problems a significantly heightened sense of urgency seemed to be linked with attending without an appointment. Identification of social problems by the doctor, however, was considerably lower than that recognised in the social problems questionnaire, and, particularly among the women, many more social problems were identified in the appointments group than in the open access group. In addition, overall, significantly more psychological problems were considered by doctors to be central to the consultation in the appointment only group than in the open access group ($p<0{\cdot}05$) (table VII).

TABLE III—*Means of transport to surgery and ownership of telephone. Values are numbers (percentages)*

	Open access group (n=141)	Appointments group (n=139)	Significance
Transport:			
Walk or bus	122 (90)	105 (79)	
Car	14 (10)	28 (21)	p<0·05
Total	136	133	
Telephone at home:			
Yes	87 (64)	99 (76)	
No	48 (36)	32 (24)	NS
Total	135	131	

TABLE IV—*Patients' and doctors' perceptions of urgency of consultations; time from onset of symptoms to presentation; and patients' attitude to making an appointment. Values are numbers (percentages)*

	Open access group (n=141)	Appointments group (n=139)	Significance
Patient perception of consultation:			
Very urgent	43 (31)	28 (20)	
Fairly urgent	81 (58)	63 (46)	
Not really urgent	6 (4)	36 (26)	p<0·001
Don't know	9 (6)	11 (8)	
Total	139	138	
Perception of urgency by patient compared with by doctor			
Doctor urgent, patient urgent	63 (47)	29 (22)	
Doctor urgent, patient not urgent	6 (5)	12 (9)	
Doctor not urgent, patient urgent	56 (42)	59 (44)	p<0·001
Doctor not urgent, patient not urgent	8 (6)	34 (25)	
Total	133	134	
Time from onset of symptoms to presentation (days):			
0-2	61 (45)	16 (14)	
3-7	42 (31)	29 (26)	p<0·001
>7	33 (24)	67 (60)	
Total	136	112	
"Making appointments is a hassle"			
Patients agreeing	80 (61)	60 (47)	
Patients disagreeing	51 (39)	69 (53)	p<0·05
Total	131	129	

*McNemar's test.

TABLE V—*Doctors' main diagnosis. Values are percentages (numbers)*

Diagnosis	Open access group (n=141)	Appointments group (n=139)	Significance
Self limiting	75 (101/135)	48 (59/124)	p<0·001
Chronic	9 (12/135)	18 (22/124)	
Psychosocial	4 (6/135)	10 (12/124)	
Other	12 (16/135)	25 (31/124)	

TABLE VI—*Psychosocial problems and associated inconvenience in making appointments and perceived urgency. Values are percentages (numbers)*

	Open access group (n=141)	Appointments group (n=139)	Significance
Overall distribution of problems			
General health questionnaire (12 items) (positive score)	50 (60/121)	50 (58/116)	NS
Social problems questionnaire (positive score)*	67 (94/141)	56 (78/139)	NS
Marital problems	20 (17/84)	14 (12/89)	NS
Considered marital separation	47 (32/87)	22 (20/92)	p<0·001
Recent separation	10 (9/87)	0 (0/92)	p<0·001
Social support problems	39 (48/124)	26 (32/123)	p<0·05
Housing problems	42 (57/136)	33 (44/135)	NS
Finance problems	41 (49/121)	36 (43/119)	NS
Inconvenience in making appointments (patients with social support problems)			
Agree	68 (32/47)	39 (12/31)	
Disagree	32 (15/47)	61 (19/31)	p<0·05
Perceived urgency (patients with social support problems)			
Urgent	68 (42/47)	32 (20/32)	
Not urgent	29 (5/47)	78 (12/32)	p<0·05

*Positive score denotes one or more social problems.

TABLE VII—*Problems identified by doctor (global diagnosis). Values are numbers (percentages)*

Global diagnosis	Open access group (n=141)	Appointments group* (n=139)	Significance
Medical	127 (90)	123 (89)	
Social	9 (6)	15 (11)	
Psychological	5 (4)	14 (10)	p<0·05

*Some patients received more than one diagnosis.

Discussion

The response rate, although satisfactory, was disproportionate between the two groups. This might be partly explained by the design of the study because only one in four of those attending by appointment were sampled compared with all the open access attenders, thus putting an unequal burden on the receptionists as well as on patients for completion of the questionnaire. Also, as found by other researchers,[8] it was probable that more of the non-responders were those with social problems, educational deficiencies, or defensive attitudes. This was apparent in this study because in a proportion of the non-responders (about one in three) literacy was

questionable or patients had difficulty with the questionnaire or were mothers with small children.

This study highlights the preference for an open access surgery by patients with a heightened sense of urgency about their problem or with social and marital problems, or with a negative attitude to making appointments. It is possible, however, that rationalisation after the consultation might have attributed to the perception of urgency in some of the open access attenders. Nevertheless, attendance without an appointment was strongly linked with a heightened perception of urgency despite the preponderance of self limiting conditions of recent onset detected in the open access surgeries. Moreover, illnesses with an onset of more than seven days were rated as being significantly more urgent by the open access group than by the appointment group.

Although the open access group heavily endorsed the view that making an appointment was inconvenient, urgency was found to be independent of patients' attitudes to making appointments. Those in the open access group were, however, more likely to have problems with social contacts, relationships, loneliness, and to have marital difficulties as disclosed by the social problems questionnaire. Those with social problems were also more likely to consider that making an appointment was inconvenient. It can therefore be argued that patients' preference for an open access surgery can be characterised by these "social triggers"[9]; by their inability to tolerate or accommodate symptoms, as represented by their sense of urgency; and by their attitudes to making appointments.

Scambler *et al* found that "sanctioning" from kinship networks resulted in a higher rate of consultation but that frequency of attendance was not increased through loneliness.[10] It is possible that loneliness, interpersonal difficulties, and poor social support might be linked with attending with urgent problems of recent onset, if possible, without the inconvenience of making an appointment, rather than with frequent attendance in itself. Severe marital problems also seemed to be important factors predisposing to this choice of route of access to primary care.

Morgan has reminded us that maximal stress "occurs in the later stages of marital breakdown rather than at the time of divorce action itself."[11] In the light of this assertion, the finding that women who had recently separated or were planning to separate were more likely to attend the open access surgery seems to support further the hypothesis that psychosocial (and marital) stress underlines open access attendance.

The large discrepancy detected in this study between psychosocial problems identified by the questionnaire and those disclosed by the doctors should not lead to the unqualified conclusion that the doctors were unaware of these problems. In a proportion of patients with known psychosocial disturbance the doctors might have felt justified in using purely biomedical labels to describe the features of the main presenting problem if the underlying social or psychological problem was considered not to be relevant. Nevertheless, as has been found by other researchers,[12] psychosocial problems are often missed by general practitioners. The patients seemed to be less reluctant to disclose their social and marital problems in a questionnaire than they were to their doctor. In the setting of the open access surgery the pressure of time might have also acted as a confounding factor. This difference may be partly explained by the greater tendency for the doctor and the patient to stick to a more manageable biological or physical problem in the shorter time available in the open access consultation. The patient might consider his or her attendance to be more justifiable as "urgent" if the basis of the interview has a respectable and tangible physical label. The doctor might collude in this process to avoid more lengthy and often frustrating psychosocial avenues. In a general practice study by Bridges and Goldberg, however, only 5% of patients presented with emotional problems.[12] Murphy cites evidence that patients trying to avoid the stigma of psychological diagnosis may present with physical symptoms, which still allow them to occupy the sick role.[13] General practitioners sometimes say that despite the existence of depression they are reluctant to diagnose it and acknowledge it to the patient.[14] On the other hand, patients may control the behaviour of their general practitioner by the timing, order, and nature of the symptoms they present.[13]

The open access group contained an appreciable number of mothers with children, and often many of the mothers' own problems were presented at the end of the children's consultation. Such timing and order of presentation in a busy open access surgery might ensure the doctor's immediate attention but here psychosocial problems tend not to be explored fully. The "illness," however, is legitimised by the seal of a biomedical diagnosis and a prescription. Balint, on the other hand, pointed out that in cases of mothers presenting with their children's illnesses, the child could be considered an evidence of the mother's illness in at least one third of them[15] and observed (as others have since) that a physical complaint is often an excuse for a visit to the doctor[12] and that patients might not always be looking for relief from their physical suffering by attending frequently but trying to gain the interest and empathy of the doctor. Medical care and, in the context of this study, open access might thus become a valued source of social support.[15]

The main thrust of the argument in this paper rests on being able to show not only that open access attenders have more acute medical problems (actual or perceived) and characteristically have different attitudinal and psychosocial profiles but also that a certain sector of the public might prefer to see the general practitioner without the barrier of appointments or receptionists.[16,17] Unless this second point can be satisfactorily shown, an open access slot in a mixed system might be perceived by critics merely as a means of providing an overflow clearance for a tight appointments schedule.

Conclusion

A rigid appointment system might be more of an advantage to doctors and receptionists than to patients. This study has provided some evidence to show that a lack of opportunity to attend without the constraint of a fixed appointment might disadvantage people who are socially handicapped, possibly lonely, or have interpersonal problems and who have an acute sense of urgency of common medical problems. The important link between social support problems and a negative attitude to making appointments needs to be emphasised. The derogatory label of casuals that is sometimes attached to those wishing to attend without an appointment is probably undeserved. Our attempts to encourage these patients to make appointments have been largely unsuccessful in the past, and improving the service that caters for their particular need would seem to be more worthwhile.

Those practices serving areas with a high prevalence of social deprivation might find that the provision of a mixed appointment and open access system is better suited to serve the needs of their patients. This might also relieve some of the burden that receptionists bear in trying to fit in extra patients, often against resistance from the doctors. It needs to be emphasised that nearly half of the appointments group found making appointments inconvenient, which highlights the need for

a more user friendly system. When the proposed changes to the NHS begin to take effect some practices may find that under budgetary pressures staffing levels have to be rationalised. Particularly for certain urban practices, organised open access surgeries might allow redeployment of staff or practices to function with fewer receptionists without having to compromise patient care.

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1 Field J. Problem of urgent consultations within an appointment system. *J R Coll Gen Pract* 1980;**30**:173-7.
2 Taylor B. Patient use of mixed appointment system in an urban practice. *Br Med J* 1984;**289**:1277.
3 Wilkin D, Hallam L, Leavey R, Metcalfe D. *Anatomy of general practice.* London: Tavistock, 1987:128.
4 Mechanic D, Volkart EH. Stress, illness behaviour and the sick role. *American Sociological Review* 1961;**26**:51-8.
5 Goldberg D, Williams P. *Manual of the general health questionnaire.* 2nd ed. Slouth: NFER-Nelson, 1987.
6 Corney RH. Development and use of a short self-rating instrument to screen for psychosocial disorder. *J R Coll Gen Pract* 1988;**38**:263-6.
7 Siegel S. *Non-parametric statistics for the behavioural sciences.* New York: McGraw-Hill, 1956.
8 Corney R, Murray J. The characteristics of high and low attenders at two general practices. *Society of Psychiatry and Psychiatric Epidemiology* 1988; **23**:45.
9 Zola IK. Pathways to the doctor: from person to patient. *Soc Sci Med* 1973;7:677-89.
10 Scambler A, Scambler G, Craig D. Kinship and friendship networks and women's demand for primary care. *J R Coll Gen Pract* 1981;**31**:746-50.
11 Morgan M. Marital status, health, illness and service use. *Soc Sci Med* 1980;**14A**:635.
12 Bridges KW, Goldberg DP. Somatic presentation of DSM III psychiatric disorders in primary care. *J Psychosom Res* 1985;**29**:563-9.
13 Murphy M. Somatisation: embodying the problem. *Br Med J* 1989;**298**:1331.
14 Tylee A, Freeling P. The recognition, diagnosis, and acknowledgement of depressive disorder by general practitioners. In: Herbst KR, Paykel ES, eds. *Depression, an integrative approach.* Oxford: Heinemann, 1989:216.
15 Balint M. *The doctor, his patient and the illness.* London: Pitman Medical, 1957:34.
16 Locker D. *Symptoms and illness.* London: Tavistock, 1981:178.
17 Arber S, Sawyer L. The role of the receptionist in general practice: a "dragon behind the desk?" *Soc Sci Med* 1985;**20**:911-21.

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Screening in Practice

Reducing the psychological costs

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For the foreseeable future screening will be an integral and growing part of our health care system. Technical advances, particularly in biogenetics; increasing expenditure on health; and, more recently, financial incentives for general practitioners to carry out some screening are resulting in more people being screened for more conditions over greater spans of their lives. But screening may sometimes do more harm than good. The way an effective screening test is implemented will influence how much good and how much harm it does. Many people undergo screening without understanding precisely what the test is for, the accuracy of the test, and the implications of any possible test results. These are the roots of many of the potentially avoidable adverse psychological consequences of screening.

What are the psychological costs of screening for patients?

High levels of anxiety have been reported in patients participating in many screening programmes, including cervical screening, breast cancer screening, and general health screening.[1] Anxiety is undesirable not just in itself but also because it can have "knock on" effects on patients' physical health,[2] increasing consultation rates while reducing patients' ability to recall and act on any advice offered.

For some, simply receiving an invitation to participate in a screening programme will induce anxiety.[3] Most of those participating in screening will receive a normal test result. Although this knowledge is usually reassuring, it does not always allay the anxieties and uncertainties raised by participation: some patients will be more anxious after screening than they were before.[4] Others will overgeneralise a normal result to mean a clean bill of health, and this may reinforce an unhealthy lifestyle.[5]

Some patients who receive a normal result will subsequently be shown to have the condition being screened for. We know comparatively little about how such patients cope with the aftermath of such a false negative result. It is possible that they may experience more difficulty in coming to terms with the disease than if they had received a positive result on their first screening test.

Some patients will receive a positive test result on first testing. This news invariably causes much distress. Depending on the sensitivity of the screening test, a proportion of patients with a positive test result will subsequently be found not to have the disease. Not all patients will be reassured by this: anxieties may remain for months or even years after a false positive result.[1]

How can these psychological costs be avoided or reduced?

The psychological effect of participating in a screening programme is often neglected both in research and practice. Many of the undesirable psychological effects of screening can be avoided or reduced by careful attention to patients' needs at each stage of the screening process—that is, inviting patients to participate in a screening programme, preparing those who decide to undergo the test, and giving results. Before setting up any screening programme a written protocol should be prepared. This should include details of how interactions with participants should be conducted at each of these stages.

Inviting people to participate in screening

There are two main methods of recruiting participants: by letter, and opportunistically (that is, when the health professional takes the opportunity to tell a patient about a screening test during a consultation for some other reason). To minimise anxiety, a letter should state why the patient is being invited. If it is a

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