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Women's preferences for cervical screening: who, where and when

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ABSTRACT

Three hundred and seven valid non-users and 307 matched users of cervical screening were interviewed about who they would prefer to take the smear test, where it was carried out and at what time. Fifty-five per cent of non-users and 48 per cent of users had no preference as to whether the smear taker was a doctor or nurse but these previously unscreened women who did state a preference preferred a nurse. A female smear-taker was preferred by most non-users (77 per cent) and most users (60 per cent), the stronger preferences among non-users being statistically significant ($\chi^2 = 20.9$, $p < 0.0001$). Only 2 per cent of non-users and 7 per cent of users specifically wanted a male to do the test while the remainder had no preference. Familiarity with the smear-taker was a more divided issue with 40 per cent of non-users and 42 per cent of users having no preference as to whether they knew the tester or not. The most popular place to have the test carried out was the GP surgery or health centre for all women. However, a minority of both groups requested a hospital well-woman or domiciliary service. There was little demand for a workplace service or weekend clinics from either group but 15 per cent of all women who wanted to attend on a weekday wanted an evening service. Preferences for smear-taker and location were not associated with age, social class or marital status. Service providers must take into account the needs of all women if they are to provide a service which will be suited to those women they want to use it. Above all, women need to know that there is a choice available if voluntary participation in the screening programme is to be encouraged.

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INTRODUCTION

Cervical screening in general practice has now been prioritised with the introduction of the new GP contract. As well as ensuring that adequate call and recall programmes are maintained, GPs must also provide a service which will suit women's needs and encourage their participation. It is therefore important that the views of those women who are reluctant to use the service are taken into consideration when designing such a service. The process of having a smear test can be particularly traumatic for some women. Many women feel extremely embarrassed about it while others are fearful that its outcome may be indicative of a fatal disease[1]. The association of cervical cancer with sexual intercourse only serves to heighten the feelings already surrounding the disease and the test[2]. Despite these issues, little has been written about what women want regarding service provision.

Early studies of non-attenders tended to blame the women themselves for their failure to take advantage of the service offered and looked for social or personality traits to explain their behaviour[3,4]. More recent studies however, have begun to look at service provision and have shown that badly organised screening programmes can impede attendance by presenting women with barriers they find difficult to overcome[5]. Those studies which have reported on women's preferences for screening have tended to look at single aspects of service provision or have been limited to single practices[6–10]. This paper presents findings from a large survey of users and non-users of a computerised cervical cytology call programme in the Tayside area of Scotland which attempted to ascertain the risk status of non-attenders and examined women's beliefs and attitudes towards the test[11,12]. Findings presented here will look at women's preferences regarding who takes the smear test, where the test is carried out and at what time.

METHODS

Attempts were made to contact 660 women who had not responded to at least three invitations for screening (non-users) and 417 women who had had a test within the previous three years, matched by age and GP (users), by a series of home visits from a research nurse, between September 1990 and July 1993[13]. All women were aged 20–65 and the sample was drawn from the computer lists of 23 GPs in Tayside for cervical screening. Ultimately, 307 non-users and 307 users were interviewed about their views of cervical screening. The interview was semi-structured and administered by the research nurse, usually in the woman's own home. Areas covered in the interview included demographic data, attitudes, beliefs and knowledge of the test, perceived benefits of, and barriers to, attendance and perceived risk of cervical cancer. Cue cards and open-ended questioning were used to prompt the interviewees.

RESULTS

Details of the characteristics of users and non-users in terms of age, marital status and social class are shown in *Table 1*. *Table 2* shows the preferences of

TABLE 1 Age, marital status and social class of respondents (%)

	Age group			All ages
	20–34 (*N* = 128)	35–49 (*N* = 43)	50+ (*N* = 136)	(*N* = 307)
*Marital status***				
Non-users				
Single	83	51	26	53
Married	15	42	51	35
Divorced/widowed/separated	2	7	23	12
Users				
Single	51	2	5	23
Married	45	75	82	66
Divorced/widowed/separated	4	23	13	11
Social class†*				
Non-users				
Class 1 and 2	18	30	24	23
Class 3	42	28	43	41
Class 4 and 5	10	28	30	21
Other	30	14	3	15
Users				
Class 1 and 2	28	41	28	30
Class 3	40	34	44	41
Class 4 and 5	14	16	25	19
Other	18	9	3	10

Chi-square statistic significant at *$P < 0.05$, **$P < 0.01$.
† Women were classified according to their own occupation if not married and according to their husband's occupation if married. 'Other' comprises students, armed forces and unclassifiable responses.

TABLE 2 Respondents preferences for selected characteristics of smear-taker (%)

	Never screened	Previously screened
Status		
GP	16	26
Any doctor	7	9
Nurse	23	16
No preference	55	48
Gender		
Male	2	7
Female	77	60
No preference	21	33
Familiarity		
Known	23	32
Not known	37	25
No preference	40	42

All percentages have been rounded.

TABLE 3 Preferred place for smear (% of women stating first choice)

Place	Never screened	Previously screened
Health centre/GP	58	78
Well-woman clinic	19	12
Family planning clinic	2	4
At home	10	2
At work	0.3	0.3
No preference	9	3
Not known	2	0.3

All percentages have been rounded.

women in the study regarding the role, gender and degree of familiarity with the smear-taker. Given a choice of smear-taker, 55 per cent of non-users and 48 per cent of users had no preference as to which health professional they wanted to do the test. Of those women who did state a preference, non-users were more likely to choose a nurse while users were more likely to want the GP to do the test ($\chi^2 = 14.2$ $p = 0.0026$). A female smear-taker was requested by 77 per cent of non-users and 60 per cent of users ($\chi^2 = 20.9$ $p < 0.0001$). However, 2 per cent of non-users and 7 per cent of users specifically wanted a male to do the test while the remainder had no preference. Familiarity with the smear-taker was a more divided issue. Forty per cent of non-users and 42 per cent of users had no preference as to whether they knew the person taking the smear or not. Thirty-seven per cent of non-users felt they would rather have the test done by someone they did not know ($\chi^2 = 12.01$ $p = 0.0025$).

The most popular place for screening was the GP surgery or health centre for all women with 58 per cent of non-users and 79 per cent of users stating this preference first (*Table 3*). Nevertheless, 19 per cent of non-users and 12 per cent of users preferred the all-female environment of the hospital well-woman clinic and a substantial minority of women, 10 per cent of non-users, would like the option of a domiciliary smear provided. A workplace service was extremely unpopular for both groups, with only one person in each group stating this preference first.

There was little demand for clinics to provide a weekend service, with 70 per cent of non-users and 68 per cent of users preferring an appointment from Monday to Friday. Seventeen per cent of non-users and 19 per cent of users had no preference for the day of the test. Only 2 per cent of non-users and users specifically wanted a weekend service (*Table 4*). Demand for time of day of the test was almost equally distributed throughout the day. Though 42 per

TABLE 4 Prefernce for day of test for all women (%) ($N = 614$)

	Monday to Friday	Monday to Saturday	Weekend only	No preference
Previously unscreened	70	10	2	17
Previously screened	68	12	2	19

TABLE 5 Preference for time of day for test for those women who wanted to attend on a weekday (%) ($N = 424$)

	Morning	Afternoon	Evening	No preference	Multiple preferences
Monday	17	13	15	42	13
Tuesday	17	13	14	42	14
Wednesday	17	13	15	43	12
Thursday	17	12	14	43	14
Friday	17	13	15	43	12

cent of women who wanted to attend from Monday to Friday had no preference for the time the test was taken, 15 per cent wanted an evening service (*Table 5*). The preferences of women for service provision were not influenced by age ($p > 0.5$), marital status ($p > 0.5$) or social class ($p > 0.5$).

Additional qualitative comments from both attenders and non-attenders show that, apart from fundamental choices like smear taker, timing and place of the test, there may be other more subtle ways of improving the service. Responses of women to the question 'Is there anything which would/does make it easier for you to attend for the test?' highlighted several areas in which the service could be made more attractive for women. These included organisational factors like providing clearer information about what the test involves, being assured of the privacy and anonymity of the test, and being sent a fixed appointment when next test was due or a clear reminder to make an appointment. Women thought access to the test could be improved by providing more creche facilities, disabled facilities, a less clinical atmosphere, help with the cost of transport and release from work to attend for the test. Women who perceived the test as painful or embarrassing commented that a self-administered test, analgesia before the test or a general anaesthetic would be helpful in facilitating their attendance.

DISCUSSION

This study required making contact with non-users of cervical screening and interviewing them about topics of a sensitive nature. It proved difficult to establish contact with some women, even when up to eight attempts were made to do so. Further, some women who were contacted declined to take part in the study[14]. It is not known whether the women who were not interviewed held different views to those who were. However, the main conclusion from this study – that there is a diversity of preferences about smear-taking – is valid whatever the views of those not interviewed.

Many authors argue that a preference for smear-taker stems, not from the feeling that one is more competent than the other, but rather from the feeling of embarrassment induced by the test and seemingly felt by both attenders and non-attenders. The majority of all women in our study wanted to have the test done by a female, irrespective of professional status and this preference was most marked among previously unscreened women. Having access to a female

smear-taker has also been found to be an important factor in dealing with the embarrassment associated with the test in several previous studies[5,7–9,15]. A national survey of Women's Institute membership by the Women's National Cancer Control Campaign found that although a male doctor was acceptable in the context of illness, for an optional examination such as the smear test, gender became a more important issue[16]. Women prefer a female doctor when consulting for female health problems for a number of reasons according to previous studies[8,17]. They were generally felt to be more approachable, take more time, and had a better understanding of women's psychological and gynaecological problems. An American study found that the use of female physicians in a screening programme reduced fear among reluctant participants and increased the level of satisfaction with the programme[18]. Nevertheless, 4 per cent of our sample specifically wanted a male to do the test.

This study contradicts the findings of previous research which reported that the woman's own GP was the preferred choice of smear taker[6,9,10]. In this study, the majority of non-users and users had no preference as to the status of the smear-taker. Similarly, despite other studies which have shown no demand for the nurse as smear-taker[7], in this study, non-users who did state a preference identified the practice nurse as their preferred choice. This may reflect the practice nurse's increasing role in cervical cytology in general practice. Many GPs now delegate the taking of smears to the nurse, who is often the person responsible for inviting women to come for the test. It may not be surprising therefore that non-attenders will identify the nurse when asked for a preference. It is difficult to ascertain however, in single-practice studies whether a preference for a particular person is influenced by the personalities of the people involved or indicates a geniune preference for the professional status of the tester. Nevertheless, the present findings suggest that some women who attend are reassured in the knowledge that the tester will be already known to them and see this as a benefit, whereas more non-attenders who stated a preference would prefer the test to be taken by someone they did not know.

The majority of women from both groups in the present study preferred to have the test done in the GP surgery or health centre, and this finding was also reported in the other studies[6,8]. However, one study found that women had equal preferences for health centres and local authority clinics[7] while another found a preference for local authority clinics especially among older women[19]. This change in attitude might reflect the growing trend among GPs in the light of the new contract to provide more specialist services like family planning and well-woman clinics independently from hospital and local authority. In a study of women who were offered a smear at a breast-screening clinic, it was found that screening might have more appeal if it were placed in the context of general health care[20].

Surprisingly, a domiciliary service was not as popular as might have been expected with non-attenders in our study. Some women stated that this would not help them since it still involved a health professional taking the smear and did not combat the embarrassing aspects of the test. A workplace venue did not appear to be a viable option in this study, with most women reporting that being released from work for an appointment was not a problem with

employers and that if it was they could be accommodated by evening clinics or arrange appointments for their days off. This confirms other research which showed mobile screening vans to be extremely unpopular with women[6,7]. We have found no other study which looked in detail at when women would prefer to have the test done, though one study found that a minority of non-attenders thought that the provision of evening and Saturday-morning clinics would make it easier for them to attend[9]. Further studies have suggested that barriers caused by children and work would indicate the need for clinics at unsocial times[5]. In fact the present study did not reveal this demand, with the majority of women wanting to attend from Monday to Friday. Part of the reason for this was that the test was not something women wanted to infringe on leisure time, although there was a demand for evening clinics on weekdays.

This diversity of preferences poses a problem for those who provide the service since it is obvious that women are not a homogeneous group with identical opinions. Doctors and health authorities must take into account the different needs of all women if they are to provide a service which will be popular and attractive to those women they want to utilise it. Although a large number of women prefer a female doctor to do the test, and the health centre appears to be the most favoured place to have the smear test, there are women with other preferences who need to be accommodated. Comments from the women show that even this service can be improved upon to make it more amenable to a larger number of women, for example by providing a greater choice of clinics or a counselling service. Women need to know that there is a choice available if voluntary participation in the screening programme is to be encouraged.

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References

1 King J. Women's attitude towards cervical smear. *Update* 1987 **34:** 160–68.
2 Quilliam S. *Positive Smear.* London: Penguin, 1992.
3 Richards ND, McEwan PJM. Sociological factors affecting use of cervical screening. *British Journal of Preventive Medicine* 1975 **27:** 65–6.
4 Davison RL, Clements JE. Why don't they attend for a cytotest? *Medical Officer* 1971 **125:** 329–31.
5 Elkind A, Eardley A, Haran D, Spencer B, Smith A. Computer-managed call and recall for cervical screening: a typology of reasons for non-attendance. *Community Medicine* 1989 **11**(2): 157–62.
6 Nicoll PM, Narayan KV, Paterson JG. Cervical cancer screening: women's knowledge, attitudes and preferences. *Health Bulletin* 1991 **49**(3): 184–90.

7 Rowarth M, Carter H. Screening for cervical cancer in Fife. *Public Health* 1988 **102:** 121–7.

8 Nichols S. Women's preferences for sex of doctor: a postal survey. *Journal of the Royal College of General Practitioners* 1987 **37:** 540–43.

9 Nathoo V. Investigation of non-responders at a cervical screening clinic in Manchester. *British Medical Journal* 1988 **296:** 1041–2.

10 Cullum DE, Savory JN. Patient preferences for cervical cytology. *British Medical Journal* 1983 **287:** 329–30.

11 Orbell S, Crombie I, Johnston G. Social cognition and social structure in the prediction of cervical screening uptake. *British Journal of Health Psychology* (in press).

12 Crombie IK, Orbell S, Johnston G, Robertson AJ, Kenicer M. Women's experiences at cervical screening. *Scottish Medical Journal* 1995 **40:** 81–2.

13 Crombie I. Cervical screening: the optimum visit plan for contacting users and non-users. *Journal of Epidemiology and Community Health* 1994 **48:** 586–9.

14 Orbell S, Crombie I, Robertson A, Johnston G, Kenicer, M. Assessing the effectiveness of a screening campaign: who is missed by 80% cervical screening coverage? *Journal of the Royal Society of Medicine* 1995 **88:** 389–94.

15 Schwartz M, Savage W, George J, Lawrence E. Women's knowledge and experience of cervical screening: a failure of health education and medical organisation. *Community Medicine* 1989 **11**(4): 279–89.

16 Burns A. *Cervical Cancer: National Survey of WI Membership.* London: Women's National Cancer Control Campaign (undated).

17 Haar E, Halitsky V, Stricker G. Factors related to the preference for a female gynaecologist. *Medical Care* 1975 **XIII**(9): 782–90.

18 Alexander K, McCullough J. Women's preferences for gynaecological exmainers: sex versus role. *Women and Health* 1982 **63**(4): 123–34.

19 Sansom D, MacInerney J, Oliver V, Wakefield J, Yule R. Recall of women in a cervical cytology screening programme. *British Journal of Preventive Medicine* 1975 **29:** 131–4.

20 Roberts MM, Loudon NB, Huggins A. Cervical screening at a breast screening clinic. *Health Bulletin* 1988 **46**(4): 213–16.