Consultations for women's health problems: factors influencing women's choice of sex of general practitioner

ATIE VAN DEN BRINK-MUINEN

DINNY H DE BAKKER

JOZIEN M BENSING

SUMMARY

Aim. *This study set out to examine the degree to which women choose to visit a woman doctor for women's health problems and the determinants of this choice. The differences between women and men doctors with regard to treating women's health problems were also studied.*

Method. *Data from the Dutch national survey of general practice were used. All group practices with both women and men general practitioners were selected. Analyses were restricted to consultations among women aged 15–65 years about menstruation, the menopause, vaginal discharge, breast examination and cervical smear tests.*

Results. *Given the size of their female practice population, women doctors saw considerably more women with women's health problems than did their male colleagues. Women were more likely to consult a woman general practitioner if she was more available (that is, working longer hours), and younger women were more likely than older women to choose women general practitioners. Sex differences in the treatment of women's health problems were small and mainly related to the verbal part of the consultation: counselling and providing information. The doctors' availability and their certainty about the working diagnosis explained differences in the verbal aspects of consultations. Women general practitioners had longer consultations than their male colleagues mainly because more health problems were presented per consultation.*

Conclusion. *In order to increase the possibility of patients choosing women general practitioners, policy should be directed towards the education of more women general practitioners and women general practitioners should be encouraged to work more days a week.*

Keywords: patient choice of doctor; women doctors; doctors' sex; women's health.

Introduction

ALL women are affected by menstruation and the menopause; some of them have problems with these physiological processes and consult their general practitioner. Many women undergo a vaginal examination in connection with these problems and other problems involving the genital system. Women also consult their doctor for sex-specific examinations such as breast examination and cervical smear tests, and for contraception and other sex-related issues. Earlier studies found that female patients, in general, have a preference for a doctor of their sex[1-3] and that they actually tend to choose a doctor of their own sex.[4-8] When consulting with problems of the female genital system, this preference is even stronger.[1,9,10] In one study, the preference for doctors of the same sex was strongest for items in which the complaint involved a sexual dysfunction and a thorough physical examination, for complaints of an intimate nature or where complete undressing was required.[2]

Why do women choose to visit a woman doctor for women's health problems? Women find it easier, or less embarrassing, to talk to a woman because of feelings of shame and fear, and taboos about genital problems.[1,9-11] Further, women are thought to have a better understanding of women's problems and are therefore easier to talk to.[10] Women doctors are also said to be more gentle when performing gynaecological examinations than men doctors.[11,12]

Patients' preference for a woman doctor could also be influenced by other factors, such as the general practitioner's experience and the patient's age and education. However, patient choice could be limited by the availability of women doctors. Women general practitioners are still in the minority, though their number has been increasing over recent years.[13-18] In addition, many of them work part-time and are therefore less frequently available than their mostly full-time male colleagues in the same group practices.[19]

Although much attention has been paid to women's health problems in the literature,[20-23] so far no data have been published about differences between women and men general practitioners in their treatment of these problems. Some studies indicate that counselling is an important factor in consultations,[14,24] particularly for gynaecological problems.[25,26] In consultations relating to women's health problems techniques such as reassurance and explanation have been advocated to reduce anxiety and to help patients relax.[27] As regards health problems in general, differences have been found in the treatment provided by women and men general practitioners.[19] Women doctors provided more counselling and advice on health education and lifestyle than male colleagues in the same group practices, while men more often gave information on health problems and treatment and offered more reassurance. The same study shows that women general practitioners admit to more uncertainty about their diagnoses than men general practitioners.

One could hypothesize that women and men general practitioners differ from each other in treating women's health problems. One reason could be that women doctors are more inclined to follow the two main principles of women's health care — consideration of the socialization and sexual identity of women and consideration of their social context.[28] Other principles of women's health care are showing respect for patients and encouraging them to cope with health problems and to take personal responsibility.[28] Following these principles can avoid medicalization of a problem. Advice on the integration of these principles into normal health care has been issued to the government.[29-31]

The number of women general practitioners is likely to increase in the future and this will have consequences for the accessibility and quality of care for women. The aims of this

A van den Brink-Muinen, MA, researcher; D H de Bakker, PhD, project leader; and J M Bensing, PhD, general director, Netherlands Institute of Primary Health Care (NIVEL), Utrecht, Netherlands.

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study were, therefore, to determine to what degree women choose women general practitioners for women's health problems and the determinants of this choice, and whether women and men general practitioners differ in treating women's health problems and, if so, how this can be explained.

Method

The data were derived from the Dutch national survey of general practice,[32] a large scale study of morbidity and interventions in general practice. The study was conducted among 161 general practitioners working in 103 practices. Selection of participating doctors was based on a stratified random sample of all Dutch general practitioners (according to region, urbanization and distance to a general hospital). The general practitioners recorded detailed information about all patient contacts in a three-month period, with four groups covering one year (April 1987 to April 1988). The data recorded included patient characteristics, characteristics of the consultation (such as first or repeat consultation, length of consultation), problems presented, doctor's diagnoses (classified using *International classification of primary care*[33]) and services provided (diagnostic services, treatment, prescriptions, referrals). Counselling and information provided were recorded using the following categories: counselling passive/listening; counselling active/exploring; reassurance; information on health problems/disease; and information about treatment/medication/referral/operation/diet. The extent to which general practitioners were certain of their working diagnosis was recorded on a five-point scale for each problem presented (one, very uncertain to five, very certain). Data on the general practitioners' characteristics — sex, availability and experience — were obtained by written enquiry. Patients' characteristics, such as age, education and length of acquaintance with the doctor, were derived from national survey data.[32]

To ensure maximum uniformity in the data collection process all participating doctors were trained in the use of the diagnostic classification system. Written instructions with definitions were provided to keep at hand during the consultation.[34] Before the recording period started all the elements of the registration form were tested in each practice while a research assistant was present. During the recording period each practice was visited once a week by a research assistant to check the data as regards completeness and irregularities and to discuss problems that might have arisen. During the recording period the doctors were asked to formulate a diagnosis on the basis of a clinical vignette in order to get an idea of the extent to which participating general practitioners assign and name similar diagnoses. There was a reasonable degree of conformity (approximately 90%) indicating that this was a reasonably reliable method of registration. The services provided by the doctors were not validated.

For this study only data from group practices with both women and men general practitioners were considered (21 practices with 27 men and 23 women doctors) in order to balance patients' opportunity of choosing between a man and a woman general practitioner. This allowed distance to the practice to be excluded as a possible explanation for differences between women and men doctors, as well as the composition of the patient population, the characteristics of the area and the availability of other health services in the area.

Analysis

The analyses were restricted to women's health problems most commonly presented — consultations about menstruation, the menopause and vaginal discharge, and for breast examination and cervical smears. Only consultations with women patients aged 15–65 years (1654 consultations) were included, because women's health problems mainly arose in this age group (96.2% in this study).

Only health problems presented on the initiative of the patient alone or the patient and doctor together were selected in order to exclude screening consultations (5.3% of 1654 consultations were excluded) from the logistic regression analysis concerning preferences for a woman or man general practitioner. The two dependent variables were the general practitioner's sex and treatment provided — counselling (active or passive), information (on health problems or treatment), reassurance, vaginal examination, prescription and referral (to secondary care or to other primary health care professionals). The independent variables were general practitioner's sex, availability, experience and certainty about working diagnoses; and the patient's health problem, age, education and length of acquaintance with her doctor. The availability of the doctors was defined as the number of full time equivalents which they worked in the practice per week (0.1 full time equivalent is a morning or an afternoon). Experience was defined as the number of years a general practitioner had been working in general practice. Certainty about the working diagnoses was calculated for each general practitioner by taking the mean of certainty for all the problems presented. Patient education was divided into three categories by the level at which full-time education was finished: low (primary education), middle (secondary education) and higher (higher vocational training and university). The length of acquaintance of a patient with her doctor (and vice versa) was the number of years she had been registered with her present doctor.

In order to compare the numbers of women consulting a woman or a man general practitioner for women's health problems the consultations with each general practitioner were expressed both as numbers and as percentages of the listed women patients because the female patient population of men general practitioners was bigger than that of women general practitioners (60.4% versus 39.6% of women patients). However, not all consultations in the group practices studied were with the doctor with whom the patient was registered; it is quite possible for a woman listed with a man general practitioner to go to a woman general practitioner in the same group practice. Differences in patient ages[19] were taken into account by performing a direct standardization for the age distribution of all women aged 15–65 years in the practice population of the participating general practitioners (in five categories of 10 years).

The consultation length was recorded by the general practitioners using six categories. In the analysis the midmarks of these categories were used in order to calculate the mean consultation length.

The percentages and mean values presented were tested for statistical significance by a difference of proportions test and by a *t*-test; both test for independent random samples.[35] Multiple and logistic regression analyses were performed in order to explain differences between women and men general practitioners.

Results

Comparison of the two groups of general practitioners revealed no significant difference in their ages: the mean age of the 23 women doctors was 38.2 years and of their 27 male colleagues 41.8 years. Women and men general practitioners differed significantly in availability and certainty, but not in experience. Women general practitioners were less available (mean 6.1 versus 8.9 full time equivalents, $P<0.001$) and less certain about working diagnoses (mean 4.4 versus 4.6, $P<0.01$) than their male colleagues

Preference for a woman general practitioner

Women general practitioners were more often consulted for women's health problems than their male colleagues: 53.8% of all such consultations were with a woman general practitioner (Table 1). Given the size of their personal female practice population women doctors saw considerably more women's health problems, especially consultations about menopause problems and involving a cervical smear, than men doctors.

Women presented additional health problems in more of the consultations with women doctors than with men doctors (46.1% of 890 versus 40.9% of 763). More than half of the patients consulting their woman doctor about menopause problems (60.8%) and for a breast examination (55.4%) presented one or more other health problem in the same consultation; this was significantly more than in consultations with men doctors (37.8% and 42.3%, respectively; both $P<0.001$). In two thirds of the consultations for a cervical smear other health problems were presented (65.5% to women doctors and 64.4% to men); for menstruation problems the figures were 35.8% and 31.5%, respectively, and for problems concerning vaginal discharge 41.3% and 40.5%.

Logistic regression analysis was performed to find the determinants for the preference for a woman doctor. The chance a woman will visit a woman doctor about women's health problems is higher if the general practitioner is more available (odds ratio 1.08, $P<0.001$, for a doctor working 0.1 full time equivalents more). Younger women patients (in 10 year age bands) will more often choose a woman doctor than older patients (odds ratio 0.82, $P<0.001$).

Treatment

The services provided by women and men general practitioners for women's health problems are presented in Table 2. Women doctors spent time listening to their patients in significantly more consultations for a cervical smear and breast examination than men doctors. Active counselling was provided in significantly more consultations for menstruation problems with men doctors than women doctors while the reverse was true for consultations for a cervical smear. In most cases, men general practitioners provided reassurance in consultations more often than women general practitioners did. Information on health problems and their treatment was generally provided more often by men doctors than their female colleagues. No significant sex differences were found for performing vaginal examinations and referring patients, although overall more referrals to medical specialists were made in consultations with men doctors. Finally, men general practitioners prescribed medication in more consultations about menopause problems than women general practitioners, but no significant differences in prescribing were found for the other women's health problems.

In order to explain these differences logistic regression analysis was performed (Table 3). The chance of a patient receiving information or reassurance was higher when she visited a man

Table 1. Number of consultations for women's health problems and age standardized rate of consultation among women patients.

	Women GPs		Men GPs		
Type of problem	Number of consultations	Number per 1000 women patients (n = 10 566)	Number of consultations	Number per 1000 women patients (n = 16 112)	Ratio of rate women:men
Menstruation	380	34.7***	321	20.3	1.7:1
Menopause	51	5.4***	37	2.1	2.6:1
Vaginal discharge	208	18.8***	195	12.5	1.5:1
Cervical smear	177	16.9***	132	8.2	2.1:1
Breast examination	74	7.0**	79	4.9	1.4:1
Total	890	82.7	764	48.0	1.7:1

n = total number of women patients aged 15–65 years on GPs' personal lists. **$P<0.01$; ***$P<0.001$.

Table 2. Services provided in consultations for women's health problems.

	% of consultations									
	Menstruation		Menopause		Vaginal discharge		Cervical smear		Breast examination	
Service	Women GPs (n = 380)	Men GPs (n = 321)	Women GPs (n = 51)	Men GPs (n = 37)	Women GPs (n = 208)	Men GPs (n = 195)	Women GPs (n = 177)	Men GPs (n = 132)	Women GPs (n = 74)	Men GPs (n = 79)
Counselling										
Passive/listening	*12.4*	*16.8*	*27.5*	*13.5*	*9.6*	*6.7*	*14.1****	*4.5*	*17.6***	*5.1*
Active/exploring	*16.8*	*25.5***	*27.5*	*35.1*	*12.5*	*12.3*	*13.6****	*4.5*	*17.6*	*12.7*
Information										
Health problems/ disease	*40.0*	*41.4*	*31.4*	*43.2*	*37.0*	*49.7****	*14.1*	*12.9*	*29.7*	*35.4*
Treatment/ medication/referral/ operation/diet	*30.5*	*39.9****	*21.6*	*40.5*	*37.5*	*44.1*	*12.4*	*9.8*	*23.0*	*21.5*
Reassurance	*16.1*	*24.3****	*11.8*	*10.8*	*10.1*	*21.0****	*7.3*	*15.2***	*28.4*	*38.0*
Vaginal examination	*36.8*	*34.0*	*15.7*	*13.5*	*51.0*	*56.9*	*52.5*	*47.0*	*32.4*	*40.5*
Prescription	*44.7*	*43.9*	*45.1*	*73.0****	*69.2*	*67.7*	*12.4*	*7.6*	*13.5*	*25.3*
Referral	*7.4*	*8.1*	*3.9*	*5.4*	*1.4*	*3.1*	*0.6*	*0.8*	*6.8*	*3.8*

n = total number of consultations. **$P<0.01$; ***$P<0.001$.

Table 3. Odds ratios of the chance that a service will be provided by a woman general practitioner.

Service	Odds ratio		
	Uncontrolled	Controlled for health problem and patient's characteristics	Controlled for health problem and patient's and GP's characteristics
Counselling[a]	0.97	1.11	1.54**
Information[b]	0.76**	0.78	0.58***
Reassurance	0.53***	0.48***	0.38***
Vaginal examination	0.99	0.89	0.84
Prescription	0.87	0.90	1.06
Referral	1.08	1.33	0.76

[a]Passive/listening and/or active/exploring. [b]Health problems/disease and/or treatment/medication/referral/operation/diet. **$P<0.01$; ***$P<0.001$.

doctor for women's health problems than when she saw a woman general practitioner. Although the provision of information seems to be explained by patients' characteristics and health problems (column two), when the data are also controlled for the characteristics of the doctor another picture emerges (column three). Women general practitioners were more likely to provide counselling. The sexes did not differ significantly in terms of prescribing, referring or performing vaginal examinations.

The contribution of the various characteristics of the general practitioners is shown in Table 4. General practitioners who were more certain about the working diagnosis were more likely to provide counselling and information; doctors who were more available were less likely to provide information. More experienced doctors were more likely to provide counselling but less likely to provide information. However, experience is unlikely to be of great relevance because the odds ratios were all about 1.0. It should be noted that the strength of relationships with general practitioner characteristics will be overestimated, because the number of consultations per doctor is high and therefore standard errors will be smaller and as a result, relationships are more likely to achieve statistical significance.

Consultation length

The mean consultation time for women's health problems was 10.3 minutes with women doctors and 9.7 minutes with men doctors ($P<0.01$). This difference can mainly be ascribed to problems concerning the menopause and vaginal discharge: with women general practitioners consultations for these problems lasted a mean of 12.1 and 10.8 minutes, respectively, while for men general practitioners the mean times were 8.5 and 9.5 minutes, respectively (both $P<0.01$). There was no significant difference between the sexes for length of consultations for menstruation, breast examination and a cervical smear. Women seeing their doctor with menopause problems had the longest consultations (mean for all women 10.6 minutes), those attending for a breast examination the shortest (mean 9.6 minutes).

The general practitioner's sex alone makes only a small contribution to explaining the longer consultation time with women general practitioners (0.5% of variance explained, $P<0.01$). If patient characteristics, type of health problem and the number of health problems presented in one consultation are taken into account 17.8% of the variance is explained ($P<0.001$).

The availability and experience of the general practitioner, the length of acquaintance between doctor and patient and the number of problems the patient presents explain 20.0% of the variance in consultation length (Table 5). However, the general practitioner's sex and patient's education do not contribute to this explanation, nor do the general practitioner's certainty and patient's age. Part-time doctors had longer consultations, as did less experienced doctors. The less doctors were acquainted with the patient, the more time they took for the consultation. However, the strongest explanatory factor remains the number of problems presented by the patient.

Discussion

The system of data collection used in this study has advantages and disadvantages. On one hand, a great deal of accurate information is produced but, on the other hand, certain areas such as counselling and provision of information and reassurance allow room for interpretation on the part of the doctors. Whether counselling is recorded as active/exploratory or passive/listening will depend in part on the assessment of the doctor; provision of information may be so much part of their routine that it may not be recorded. These verbal and non-verbal aspects of communication need further investigation by means of independent observation methods, which ensure the validity of recording.

Another restriction is imposed by the group of general practi-

Table 4. Odds ratios of the chance that a service will be provided, by characteristics of general practitioner.

Service	Odds ratio by GP characteristic		
	Availability	Experience	Certainty
Counselling[a]	0.97	1.03**	6.74***
Information[b]	0.85***	0.97***	3.39***
Reassurance	0.90	0.98	1.71
Vaginal examination	0.95	0.99	1.59
Prescription	1.03	1.01	1.63
Referral	0.90	0.94	0.41

[a]Passive/listening and/or active/exploring. [b]Health problems/disease and/or treatment/medication/referral/operation/diet. **$P<0.01$; ***$P<0.001$.

Table 5. Standardized and unstandardized regression coefficients (beta and *B*) for length of consultation.

	Beta	*B*
GP characteristics		
Sex	–0.01	–0.08
Availability	–0.12***	–0.24
Experience	–0.09**	–0.05
Certainty	–0.03	–0.64
Patient characteristics		
Age	0.05	0.02
Education	0.05	0.39
Length of acquaintance	–0.11***	–0.73
Number of problems presented	0.35***	2.52

**$P<0.01$; ***$P<0.001$.

tioners selected for this study. Only group practices with women and men general practitioners were investigated, so that, in theory, patients had the chance of consulting a woman doctor. General practitioners in such practices may differ from other colleagues in practice style and hence the generalizibility of the results may be limited. This applies particularly to men general practitioners, because while fewer than half of all Dutch men general practitioners (42%) belong to a group practice, 80% of women general practitioners work in a group practice.[36]

These limitations should be borne in mind when considering the results of this study. More than half of the women studied visited a woman general practitioner for women's health problems (54%). This percentage is considerably higher than the figure of 43% for all health problems.[19] When the number of women in the practice population is taken into account, women doctors saw many more women with women's health problems than their male colleagues. The embarrassing nature of these health problems did seem to influence the choice of sex of general practitioner. Consulting a woman doctor seemed to diminish women's reserve about mentioning health problems in general; more women presented additional problems in consultations with women doctors than with men doctors.

Determinants of the preference for a woman doctor were the availability of the doctor and the age of the patient: women are more likely to consult a woman doctor if the doctor is more available, and younger women patients were more likely to choose a woman general practitioner than older patients. The issue of availability is an important finding. Only 14% of all Dutch general practitioners are women, many working part time[37] and women's preference in general practice is for part-time work.[36] The demand for women general practitioners is likely to increase among the future generation, given the preference of younger women for a doctor of their own sex. The implications for health policy are clear. To enable women to consult a woman doctor more women medical students have to be encouraged to become general practitioners. Additionally, vocational retraining should be organized for women general practitioners returning to work after raising a family.

Small sex differences were found in the treatment of women's health problems by general practitioners, mainly relating to the verbal part of the consultation. The small numbers of consultations, especially for menopause problems and breast examination, may explain why some differences did not reach statistical significance. In general, women doctors listened more often to their patients than men doctors (passive counselling); this was especially true with women who had problems with the menopause and with women undergoing an examination for breast or cervical cancer. Men general practitioners undertook more active counselling than women doctors with women consulting them for menstruation problems, while women general practitioners undertook more active counselling with women undergoing an examination for breast or cervical cancer. Information seemed to be more commonly provided by men than women doctors, as did reassurance. Communication and information are important issues, particularly from the point of view of women's health care, but it cannot be concluded from these findings that the principles of women's health care with regard to communication and provision of information are better met by women than by men general practitioners in the group practices investigated.

Another factor seen to be important in women's health care is the avoidance of medicalization where possible.[28] This would be apparent in prescribing and referring. With the exception of prescriptions for menopause problems, which were provided in significantly more consultations with men doctors than women, there were no sex differences in prescribing and referring. However, this exception is an interesting one, because women's health care emphasizes the menopause (and menstruation) as a normal physiological phenomenon that needs no medication in most cases.[28] It seems that women doctors support this idea more than men doctors. Men doctors more often gave information than women doctors, but because the content of the information was not investigated it cannot be assumed that this led to less medicalization.

How can these differences between women and men general practitioners in the treatment of women with women's health problems be explained? Counselling appears to be related to certainty about the working diagnosis: for both sexes combined more certainty coincided with more counselling. However, women doctors provided more counselling, especially passive counselling, but were less certain about their diagnoses, or were more willing to admit such uncertainty. This uncertainty is also demonstrated by a greater tendency to order laboratory tests and to ask the patient to make a repeat visit.[19] Whether this uncertainty should be considered as enhancing quality of care, or as increasing medicalization, cannot be determined from these data. Provision of information about health problems and their treatment is also related to more certainty. The more certain doctors are about the diagnosis, the more specific information they can provide. Less involvement in the practice also influences the extent of provision of information. This is probably a matter of time: part-time general practitioners plan and take more time per consultation and therefore they have more time to provide information to their patients. Another possible explanation is that counselling and provision of information are sex-related behaviours. Counselling can be considered as passive and affective behaviour, and may therefore be a specific characteristic of women.[28] Provision of information is regarded as active and instrumental behaviour and hence can be ascribed to men. Finally, reassurance was only related to sex: men general practitioners tried to reassure their women patients more often then their female colleagues. Perhaps this can be ascribed to the opposite sex of doctor and patient or it may indicate that reassurance is a typically male characteristic. Another explanation may be that women only reassure their patients if they are certain about the diagnosis. It can be concluded that to some degree certainty about the diagnosis and availability explain differences in the verbal aspects of consultations for women's health problems. However, the results do not imply that men or women supply a higher quality of care.

The length of consultation also deserves attention: women general practitioners had longer consultations for women's health problems than men general practitioners. In trying to find an explanation for this it was ascertained that the number of problems presented, in particular, influenced the consultation length. Since women general practitioners were more often consulted by patients presenting more than one health problem, this partly explains the sex difference. However, it also can be argued that women general practitioners encourage their patients to present additional problems. Other factors relevant to the length of consultation were the availability and experience of the general practitioner and the length of acquaintance between doctor and patient. The less general practitioners were involved in the practice, the less experienced they were and the less acquainted with a patient, the longer the consultation was. These factors explain only 20% of the variance in consultation length. Other factors must have contributed to the length of the consultation, for instance the content of communication, information and examination, but these were not investigated in this study.

Women more often consulted a woman than a man general practitioner for women's health problems and, in view of this preference, these problems especially should be a task for

women general practitioners. However, once in the consultation room there were few differences in the treatment of these problems, except in terms of communication. More detailed studies, particularly of the verbal and non-verbal aspects of consultations, are needed to determine whether there are differences between women and men general practitioners in the quality of care provided.

References

1. Fennema K, Meyer DL, Owen N. Sex of physician: patients' preferences and stereotypes. *J Fam Pract* 1990; **30:** 441-446.
2. Ackerman-Ross FS, Sochat N. Close encounters of the medical kind: attitudes toward male and female physicians. *Soc Sci Med* 1990; **14A:** 61-64.
3. Weyrauch KF, Boiko PE, Alvin B. Patient sex role and preference for a male or a female physician. *J Fam Pract* 1990; **30:** 559-562.
4. Hopkins EJ, Pye AM, Solomon M, Solomon S. The relation of patients' age, sex and distance from surgery to the demand on the family doctor. *J R Coll Gen Pract* 1968; **16:** 368-378.
5. Kelly JM. Sex preference in patient selection of a family physician. *J Fam Pract* 1980; **11:** 427-430.
6. Preston-Whyte ME, Fraser RC, Beckett JL. Effect of a principal's gender on consultation patterns. *J R Coll Gen Pract* 1983; **33:** 650-658.
7. Cooke M, Ronalds C. Women doctors in urban general practice: the patients. *BMJ* 1985; **290:** 753-755.
8. Graffy J. Patient choice in a practice with men and women general practitioners. *Br J Gen Pract* 1990; **40:** 13-15.
9. Haar E, Halitsky V, Sticher G. Factors related to the preference for a female gynaecologist. *Med Care* 1975; **12:** 782-790.
10. Nichols S. Women's preferences for sex of doctor: a postal survey. *J R Coll Gen Pract* 1987; **37:** 540-543.
11. Wigersma L. Kwaliteit van de hulpverlening door de huisarts bij genitale en seksuele klachten [Quality of care-giving by the general practitioner for genital and sexual complaints]. *Huisarts en Wetenschap* 1992; **35:** 53-56.
12. Oppenheimer C, Catalan J. Counselling for sexual problems. Ethical issues and decision-making. *Practitioner* 1981; **225:** 1623-1633.
13. Cooke M, Ronalds C. Women doctors in urban general practice: the doctors. *BMJ* 1985; **290:** 755-758.
14. Ogle KS, Henry RC, Durda K, *et al.* Gender-specific differences in family practice graduates. *J Fam Pract* 1986; **23:** 357-360.
15. Wakeford RE, Warren VJ. Women doctors' career choice and commitment to medicine: implications for general practice. *J R Coll Gen Pract* 1989; **39:** 91-95.
16. Hopper J. Full-time women general practitioners — an invaluable asset. *J R Coll Gen Pract* 1989; **39:** 289-291.
17. Kletke PR, Marder WD, Silberger AB. The growing proportion of female physicians: implications for US physician supply. *Am J Public Health* 1990; **80:** 300-304.
18. Maheux D, Dufort F, Béland F, *et al.* Female medical practitioners. More preventive and patient orientated? *Med Care* 1990; **28:** 87-92.
19. Bensing JM, van den Brink-Muinen A, de Bakker D. Gender differences in practice style: a Dutch study of general practitioners. *Med Care* 1993; **31:** 219-229.
20. Baart I, Baerveldt M (eds). *Dokteren aan vrouwen. De medicalisering van vrouwenlevens [Practice with women: medicalization of women's lives].* Amsterdam, Netherlands; SUA, 1986.
21. Horstman K, Brinkgreve C, van Lenning A, *et al.* Vrouwenkwalen? Feministische perspectieven op ziekte en gezondheid [Women's diseases? Feminist perspectives of illness and health]. *Tijdschr Vrouwenstudies* 1990; **11:** 175-183.
22. Meeuwesen L, Ruiter M, Westerbech-van Eeren J, *et al. Vrouwen en gezondheid [Women and health].* Hague, Netherlands: STEO, 1991.
23. Bransen E. Has menstruation been medicalised? Or will it never happen? *Soc Health Illness* 1992; **14:** 98-110.
24. Roter D, Lipkin S, Lortgaard A. Sex differences in patients' and physicians' communication during primary care visits. *Med Care* 1991; **29:** 1083-1093.
25. Petravage JB, Reynolds LJ, Gardner HJ, *et al.* Attitudes of women toward the gynecological examination. *J Fam Pract* 1979; **9:** 1039-1045.
26 Keane D, Woodward CA, Ferrier MB, *et al.* Female and male physicians. Different practice profiles. *Can Fam Physician* 1991; **37:** 72-81.
27. Haar E, Halitsky V, Stricker G. Patients' attitudes toward gynecological examination and to gynecologists. *Med Care* 1977; **15:** 787-795.
28. Ministerie van Sociale Zaken en Werkgelegenheid. Projectgroep vrouwenhulpverlening. *Vrouwenhulpverlening in de huisartsenpraktijk [Women's health care in general practice].* Hague, Netherlands: Ministerie van Sociale Zaken en Werkgelegenheid, 1986.
29. Ministerie van Sociale Zaken en Werkgelegenheid. Projectgroep vrouwenhulpverlening. *Eindadvies [Final advice].* Hague, Netherlands: Ministerie van Sociale Zaken en Werkgelgenheid, 1986.
30. Willemsen-Heddes ThM. Vrouwenhulpverlening en huisarts: een geïntegreerde visie [Women's health care and general practitioners: an integrated vision]. *Medisch Contact* 1990; **45:** 1470-1472.
31. Adviesgroep Vrouwenhulpverlening. *Advies functies van de vrouwenhulpverlening [Advice functions of women's health care].* Rijswijk, Netherlands: Ministerie van Welzijn en Volksgezondheid, 1990.
32. Foets M, van der Velden J, de Bakker D. *Dutch national survey of general practitioners: survey design.* Utrecht, Netherlands: NIVEL, 1992.
33. Lamberts H, Wood M (eds). *ICPC. International classification of primary care.* Oxford University Press, 1987.
34. Foest M, van der Velden J. *Een nationale studie van ziekten en verrichtingen in de huisartsprektijk. Basisrapport: meetinstrumenten en bijlagen [Dutch national survey of general practitioners. Base report: measuring instruments and appendices].* Utrecht, Netherlands: NIVEL, 1991.
35. Blalock HM. *Social statistics.* Toyko, Japan: McGraw-Hill, 1979.
36. Pool JB. *Cijfers uit de registratie van beroepen in de eerstelijnsgezondheidszorg 1991 [Numbers from registration of professions of primary health care 1991].* Utrecht, Netherlands: NIVEL, 1992.
37. Pool JB, Hingstman L. *Cijfers uit de registratie van beroepen in de eerstelijnsgezondheidszorg, deel I [Numbers from registration of professions of primary health care, part 1].* Utrecht, Netherlands: NIVEL, 1990.

Address for correspondence

Mrs A van den Brink-Muinen, NIVEL, Postbus 1568, 3500 BN Utrecht, Netherlands.