Effect of a principal's gender on consultation patterns

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SUMMARY. This report describes a study of consultation patterns of male and female partners in a group practice. It was found that full-time principals of both sexes had similar levels of workload; that patients chose to consult a doctor of the same sex not only for sex-specific disorders but also for conditions which were not sex-linked; that female partners were seeing a different age distribution of patient; and that doctor-initiated appointments varied not only between individual partners but were also related to both the sex of the doctor and the sex of the patient.

Introduction

THERE have been few reports of the difference in work patterns of male and female general practitioners. Cartwright and Anderson[1] commented on the lack of difference between men and women practitioners as far as their qualifications, type of practice or attitude were concerned. They found 'surprisingly' that women doctors were less likely to say they fitted intrauterine contraceptive devices (IUCDs) and that women patients had no greater preference to consult a doctor of the same sex than male patients. As their sample included only 36 women doctors their findings may not be representative of women in general practice as a whole.

Hopkins[2] studied the patients' choice of doctors in an urban practice of four doctors—two male and two female. Data was included for only one of the women doctors, however, but the conclusions were that she saw twice as many female patients as male patients compared with her young male partner and that there was a marked sex difference in attendance rates for possibly embarrassing conditions, female patients choosing to consult the female doctor in these circumstances.

Gray[3] reviewed the preferences which patients express for male and female doctors and highlighted the factors which predispose women to prefer female doctors. Gynaecological problems were a major reason, and she quoted Haar and colleagues[4] who found that 40 per cent of the women they surveyed preferred female gynaecologists.

In the management of family planning problems, Cartwright and Waite[5] found that female doctors were more likely to consider alternatives for women who were worried by the health implications of oral contraception while male doctors were more likely to reassure the woman and to persuade her to continue with the Pill.

Gray[3] suggested that preference as to sex of doctor is at present influenced by the distribution of women and men in the medical specialities. Male patients who wish to consult a male general practitioner have usually no problem in doing so, while women patients may seek a woman doctor without success.[6] It may be difficult therefore for a woman to express a preference if she has never had the opportunity to consult a woman doctor and thus to compare this experience with that of consulting a male doctor.

Because our practice is unusual in having two full-time women principals whose work commitments are directly comparable with the male principals, we decided to investigate whether the findings of Hopkins[2] and Gray[3] were applicable to our practice.

Aims

The aims of the investigation were to compare the consultation patterns of male and female principals in terms of: workload; age and sex distribution of patients; recorded morbidity.

Hypotheses

1. Full-time principals of either sex have similar levels of workload.
2. That 'sex-specific' patient morbidity influences the decision of the patient to consult either a male or female doctor—in other words, women tend to consult women doctors for female-specific complaints, and vice versa.
3. There is no such trend for conditions which are not sex-specific.

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4. That male and female principals see the same age distribution of patients.

5. That doctor-initiated appointment rates vary according to the individual principal and are unrelated to either the sex of the doctor or the patient.

The practice

At the time of the survey, the practice comprised six principals—four male (three of whom were full-time and one part-time) and two full-time female partners. The total list size at the mid-point of the study was 12,774 patients (46 per cent male, 54 per cent female). The practice had the full range of attached staff, and all consultations were by appointment. It was practice policy that patients could elect to consult the doctor of their choice subject to availability. There were no special family planning clinics but the male principals tended to refer patients who required family planning advice (other than for the Pill) to the female principals, who were responsible for all the IUCD fittings performed in the practice.

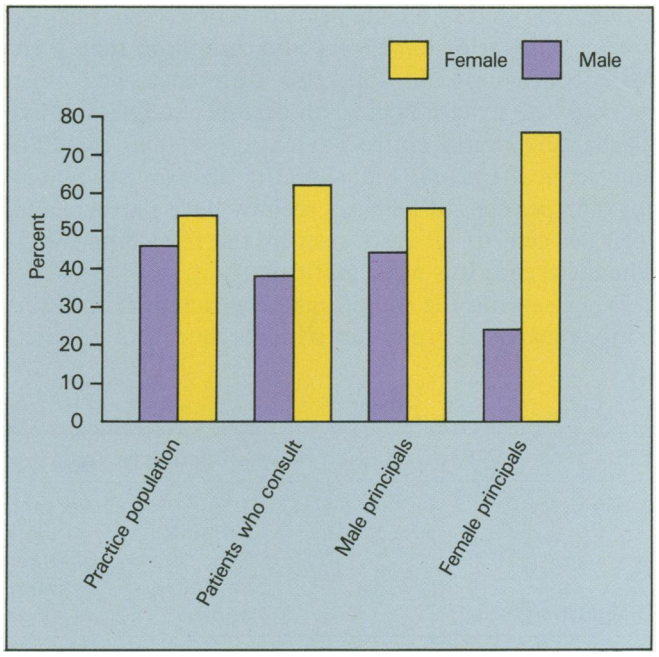

Figure 1. *Sex distribution of patients consulting principals.*

Method

The survey was carried out over an 11-month period between June 1979 and May 1980. Before each consulting session, the clerical staff completed a specially designed proforma containing such details as patient identification and mode of appointment. The doctor recorded the principal diagnoses or reason for contact using the RCGP version of the *ICD Code*. Antenatal consultations were excluded.

Results

Workload comparisons

When male and female principals with the same sessional commitment were compared, one woman partner was found to have carried out significantly more consultations than her male colleague. There was no difference in the consultation workload of the second woman partner and her comparable male colleague.

Sex-distribution of patients between principals

Of the total number of consultations (21,324) in the 11 months of the survey, 38 per cent were with male patients and 62 per cent with female (Figure 1). The consultation rate for a female patient (2.6 per annum) was significantly higher than the rate for a male patient ($\chi^2_1 = 748.3$, $P < 0.001$).

Male principals were consulted 13,776 times; 44 per cent of consultations were with male patients and 56 per cent were with female patients (Figure 1). Female principals were consulted 7,548 times; 24 per cent of consultations were with male patients and 76 per cent with female patients (Figure 1). Both male and female principals saw more female patients ($\chi^2_1 = 31.2$, $P < 0.001$; and $\chi^2_1 = 1484$, $P < 0.001$) than would be expected from the male and female list sizes in the practice. However, when the observed higher consultation rate for female patients is taken into account, male principals are shown to have seen fewer female patients (and therefore more male patients) than expected, and conversely the female principals saw more female patients than expected and less males ($\chi^2_1 = 841$, $P < 0.001$).

Age-distribution of patients consulting principals

The patients were grouped for age into one of eight categories: 0–4, 5–14, 15–24, 25–34, 35–44, 45–64, 65–74, and 75 + years.

The age profiles of patients seen by the male and female principals were significantly different ($\chi^2_7 = 150$, $P < 0.001$). Female principals saw proportionately more patients in the 15–44 years of age range than the male principals. This effect was repeated when only female patients were considered ($\chi^2_7 = 132$, $P < 0.001$). However, when considering only male patients, the profiles were again significantly different ($\chi^2_7 = 61.2$, $P < 0.001$) but now female principals saw proportionately more patients in the 0–34 years of age range and less in the 35 + years of age range than the male principals.

Gender of doctor consulted and morbidity

Table 1 outlines the distribution of morbidity between male and female principals for the major diagnostic groups. The female principals saw fewer patients in the majority of the diagnostic groups but they saw about 65 per cent more patients than their male colleagues in the genitourinary and prophylactic procedures group. These two groups contain the majority of the male-specific and female-specific conditions (see Appendix).

Table 2 shows that female principals saw a significantly greater number of female-specific conditions than their male colleagues and that this difference was most marked for gynaecological disease (excluding vaginal discharge), contraceptive advice (other than the Pill) and cervical smears. Male-specific diseases accounted for 0.65 per cent of all cases seen by male partners and 0.53 per cent of all cases seen by the female partners. The difference was not significant.

When sex-specific conditions were excluded, in all the major diagnostic groupings patients tended to polarize towards a doctor of the same sex (except group 4 where there was a slight but non-significant preference for a doctor of the opposite sex). The most extreme examples were group 7, circulatory disorders, where male principals saw an equal number of male and female patients but female principals saw three female patients for every male patient and group 18, prophylactic procedures, where again male principals saw equal numbers of male and female patients but female principals saw six female patients for every male. Both differences were highly significant ($P<0.001$).

Table 1. Morbidity distribution between male and female principals for all diagnostic groups.

Diagnostic group*		Number of consultations	Percentage of patients seen by female principals	Rate standardized per female principal month**	Percentage of patients seen by male principals	Rate standardized per male principal month**
1	Communicable	588	*32*	9	*68*	10
2	Neoplasms	341	*25*	4	*75*	7
3	Allergic/endocrine	943	*36*	15	*64*	16
4	Blood	171	*42*	3	*58*	2
5	Mental	2,281	*34*	35	*66*	39
6	Nervous system	1,619	*30*	22	*70*	29
7	Circulatory	2,825	*33*	43	*67*	49
8	Respiratory	3,024	*30*	41	*70*	55
9	Gastrointestinal	1,319	*35*	21	*65*	22
10	Genitourinary	1,432	*48*	31	*52*	19
12	Skin	1,367	*32*	20	*68*	24
13	Musculoskeletal	1,917	*33*	29	*67*	33
16	Ill-defined symptoms	132	*38*	2	*62*	2
17	Accident	654	*26*	8	*74*	12
18	Prophylactic	2,422	*49*	53	*51*	32

*Groups 11, 14, 15 were omitted because of small numbers.
**Presentation of results are standardized by male and female months because female principals worked a total of 22 months compared with male principals' total of 38 months during survey period.

Table 2. Morbidity distribution between male and female principals for specific categories.

Category	RCGP Code	Number of consultations	Percentage of patients seen by female principals	Rate standardized per female principal month	Percentage of patients seen by male principals	Rate standardized per male principal month	Difference between consultation rates for male and female principals
Genitourinary							
Acute cystitis	313	237	*35*	3.7	*65*	4.1	NS
Vaginal discharge	335	172	*45*	3.5	*55*	2.5	$P<0.05$
Gynaecological disease (except vaginal discharge)	323–334	697	*59*	18.8	*41*	7.4	$P<0.001$
Family planning							
Sterilization	578	29	*31*	0.4	*69*	0.5	NS
Oral contraception	585	735	*42*	14.0	*58*	11.2	$P<0.01$
Other contraceptive advice	586	204	*94*	8.7	*6*	0.3	$P<0.001$
Cervical smear	500	223	*85*	8.6	*15*	0.9	$P<0.001$

NS = not significant.

Doctor-initiated appointments related to gender of principal

Because the recording of consultations did not identify episodes of illness, analysis of follow-up rates was undertaken to determine whether the greater number of women patients seen by the women principals was a result of a higher rate of doctor-initiated appointments.

Doctor-initiated appointment rates varied from 7.2 to 18.1 per cent between individual doctors. However, a similar analysis for male and female principals shows that the doctor-initiated appointment rate for male partners averaged 10.8 per cent and for female partners it averaged 13.8 per cent. This difference was significant at the 0.1 per cent level ($\chi_1^2 = 43.83$).

Table 3. Doctor-initiated appointments by gender of doctor and of patient.

Gender of patient	Percentage of doctor-initiated appointments: Male principals ($n=1,470$)	Female principals ($n=1,040$)	Significance level
Male	*11.4*	*11.6*	NS
Female	*10.3*	*14.5*	$P<0.001$

NS = not significant.

Doctor-initiated appointments related to gender of patient and doctor

Table 3 shows that male and female principals had the same follow-up rate for male patients ($\chi_1^2 = 0.09$) but that women principals had a significantly higher follow-up rate ($\chi_1^2 = 53.61$) for female patients.

When these rates were related to morbidity (Table 4), it was in the female-specific group of problems that the particularly large differences in the proportion of doctor-initiated appointments were recorded. The other group where a significantly large difference occurred was the allergic and endocrine group which contains the patients suffering from obesity.

Discussion

The increasing number of women being accepted by medical schools will inevitably mean a rapid increase in the number of women doctors seeking employment. Parkhouse[7] has demonstrated that women put general practice high on their list of career choices, and Swerdlow and colleagues[8] have evaluated the reasons for this. An editorial in the *Journal of the Royal College of General Practitioners*[9] pointed to the need to demonstrate to practices that the employment of a woman as a principal could bring benefits to that practice thus encouraging group practices to appoint women as partners.

Table 4. Doctor-initiated appointments related to morbidity, gender of doctor and patient.

Diagnostic group*	Number of consultations	Percentage of doctor-initiated appointments for male patients: Male principals	Female principals	Significance level	Percentage of doctor-initiated appointments for female patients: Male principals	Female principals	Significance level
1 Communicable	587	*10.8*	*1.5*	0.05	*9.0*	*7.3*	NS
2 Neoplasms	239	*14.7*	*25.0*	NS	*4.7*	*12.9*	NS
3 Allergic/endocrine	941	*13.0*	*17.6*	NS	*12.8*	*31.5*	0.001
4 Blood	171	*25.8*	*26.9*	NS	*20.6*	*26.7*	NS
5 Mental	2,278	*20.3*	*25.7*	NS	*19.3*	*23.5*	0.05
6 Nervous system	1,616	*7.1*	*10.9*	NS	*7.1*	*11.4*	0.05
7 Circulatory	2,821	*19.1*	*19.8*	NS	*12.9*	*18.1*	0.01
8 Respiratory	3,017	*4.8*	*5.2*	NS	*3.6*	*3.1*	NS
9 Gastrointestinal	1,314	*8.0*	*9.0*	NS	*7.8*	*10.0*	NS
10 Genitourinary (sex-specific problems excluded)	169	*5.4*	*18.8*	NS	*15.4*	*15.7*	NS
12 Skin	1,362	*6.7*	*4.8*	NS	*8.3*	*7.2*	NS
13 Musculoskeletal	1,914	*11.1*	*10.3*	NS	*9.2*	*11.8*	NS
16 Ill-defined symptoms	132	*11.4*	0	NS	*8.5*	*31.6*	0.01
17 Accident	652	*6.1*	*4.5*	NS	*3.5*	*4.8*	NS
18 Prophylactic (sex-specific problems excluded)	1,229	*15.2*	*8.6*	NS	*15.7*	*9.8*	0.05
**Male problems	149	*9.8*	*16.3*	NS			
**Female problems	2,402				*9.3*	*15.8*	0.001

*Groups 11, 14 and 15 were omitted because of small numbers.
**See Appendix.
NS = not significant.

Our study has demonstrated that in our practice the women partners have a higher, or at least as equal, a consultation workload as their male colleagues with the same sessional commitment, thus dispelling the fear that a woman doctor does not 'pull her weight' with regard to the number of consultations carried out.

While we have confirmed Hopkins' findings that women patients particularly choose a doctor of the same sex when the complaint is possibly an embarrassing one, we have also shown that even when the complaint is not of this nature a woman patient tends to choose a doctor of her own sex and that this trend is also true for the men patients.

One of the distinguishing characteristics we found between male and female principals was the difference in doctor-initiated appointment rates. Women doctors follow up their male patients to the same extent as their male colleagues but have a significantly higher follow-up rate for their female patients. This difference is particularly evident for the female-specific problems and may be an expression of the woman doctor's preferred management of such problems. The male doctor is less likely to initiate a further appointment and this action may be interpreted by some women as a dismissal of their problem. The design of our study does not enable us to confirm this theory but we suggest that future research might explore this aspect of the behaviour of doctors towards their patients.

We confirmed that the women doctors enjoyed almost a monopoly of consultations for family planning advice other than the Pill. We suspect that this was due in part to the male doctors' recognizing that their female colleagues had developed a special expertise in this field and therefore directing their women patients to the women doctors for advice when an alternative method of contraception was needed. However, it might equally be true that the women patients naturally regarded the women doctors as having more expertise in these matters. Again the study allows us only to hint at the reasons for these findings.

Another interesting finding was that younger rather than older men chose to consult a woman doctor. This may be interpreted as the young man having no difficulty in consulting an older woman (who may be seen as fulfilling a maternal role) whereas an older man is more resistant to consulting a young woman doctor whom he may regard as a daughter.

Conclusions

We are aware of the fact that the results of this study describe only the situation which prevailed in our practice during the observation period and that they cannot be assumed to apply to other practices. We would hope, nevertheless, that practices with women partners might be stimulated to discover whether the same traits are evident in their consultation patterns, thus providing the objective evidence which is called for to demonstrate the role of the female doctor in general practice. Furthermore, we admit that we have not uncovered the reasons why patients decide to consult a doctor of the same sex as themselves, and suggest that this could be the basis for further research. What is clear, however, is that female patients would welcome increased opportunities to consult doctors of their own sex.

References

1. Cartwright A, Anderson R. *General practice revisited.* London: Routledge and Kegan Paul, 1981.
2. Hopkins EJ. A study of patients' choice of doctor in an urban practice. *J R Coll Gen Pract* 1967; **14:** 282.
3. Gray J. The effect of the doctor's sex on the doctor–patient relationship. *J R Coll Gen Pract* 1982; **32:** 167-169.
4. Haar E, Halitsky V, Stricker G. Factors related to the preference for a female gynaecologist. *Med Care* 1975; **13:** 782-790.
5. Cartwright A, Waite M. General practitioners and contraception in 1970–71. *J R Coll Gen Pract* 1972; **22:** Supplement 2.
6. McPherson A, Small J. Women general practitioners in Oxfordshire. *J R Coll Gen Pract* 1980; **30:** 108-111.
7. Parkhouse J, Palmer MK. Career preferences of doctors qualifying in the United Kingdom in 1977. *Health Trends* 1979; **11:** 35-37.
8. Swerdlow AJ, McNeilly RN, Rue ER. Women doctors in training: problems and progress. *Br Med J* 1980; **281:** 754-758.
9. Anonymous. Women general practitioners. (Editorial) *J R Coll Gen Pract* 1979; **29:** 195-199.

Appendix

Codes are in accordance with the RCGP Classification of Morbidity for National Morbidity Survey 1970–71.

1. Disorders or prophylactic procedures specifically related to women patients

325–328, 330, 334: Disorders of menstruation
324: U/V prolapse
329: Menopausal symptoms
323, 332, 335: Infections associated with genital system
342: Dyspareunia
331, 333: Unclassified disease of genital system
58, 70, 322: Disease of breast
313: Acute cystitis (predominantly female)
500: Cervical smear
578: Sterilization
585: Oral contraceptive advice
586: Other contraceptive advice

2. Diseases specifically associated with men patients

61, 318: Prostatic disease
319: Hydrocele
320: Orchitis and epididymitis
321: Other disease of male genital system

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