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Prevalence and associations of gender concordance in general practice consultations: a cross-sectional analysis

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Abstract

Rationale, aims and objectives: Gender effects on physician-patient interactions are well-established and gender concordance of the physician-patient dyad influences consultation dynamics, person-centeredness and outcomes. We aimed to establish the prevalence and associations of gender-concordant and gender-discordant consultations of general practice (family medicine) trainees and to compare outcomes of gender-concordant and gender-discordant consultations.

Method: A cross-sectional analysis from an ongoing cohort study. The outcome measure was whether a consultation included a gender concordant (female-female, male-male) or discordant (male-female, female-male) physician-patient dyad. Independent variables related to patient, physician (registrar), practice, consultation content and consultation outcome.

Results: Five hundred and ninety-two general practice (GP) registrars (trainees) in 4 of Australia's 17 regional training programs provided data on 56,234 individual consultations. Sixty-two point nine percent of consultations were gender-concordant (73.5% female-female, 26.5% male-male) and 37.1% were gender-discordant (47.0% male physician-female patient, 53% female physician-male patient). Associations of having a gender-concordant consultation were patient female gender and younger age (<55), the patient not being new to the registrar and the registrar being part-time, younger and having worked at the practice previously. Addressing a reproductive/contraceptive/ genital problem was associated with gender concordance. Gender-concordant consultations were 'complex': significantly longer than gender-discordant consultations, addressed a greater number of problems, resulted in more pathology ordered, more follow-up organised and more learning goals generated.

Conclusions: Gender-concordant consultations may be more complex and gender-concordance is 'sought' by patients rather than being random. Thus, efforts could be made in general practice to provide access to both male and female GPs, especially for female patients or groups or patients with particular needs.

Keywords

Consultation dynamics, cultural sensitivity, dyadic preference, family medicine, general practice, patient choice, personcentered healthcare, physician's practice patterns, physician-patient relations, physicians, women patients

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Introduction

Gender effects on physician-patient interactions are well established, with most evidence derived from studies in primary care [1]. Variability in interactions has been found when viewed from both the physician and patient perspective. Primary care consultations with female physicians are longer [1-3] and female physicians, compared to male physicians, are more likely to engage in active partnership behaviour, positive talk, psychosocial question asking and counselling and emotionally focussed talk [1,2], to organise follow-up and make referrals and to perform screening procedures [3]. Similarly, primary care patients speak more to female physicians than to male physicians, disclose more biomedical and psychosocial information, are more assertive towards female physicians and make partnership statements more frequently to female physicians [4].

Not only the gender of the physician, but the gender concordance of the physician-patient dyad, influences consultation dynamics, person-centeredness and outcomes [5]. The background to consideration of these dyads is that female patients are more likely to consult female physicians [3,6,7] and female physicians are preferred by female patients for overall healthcare as well as for gynaecological or 'emotional' problems [7-10]. Less research has explored the preferences of male patients, but gender-preference may be less important for male patients [7,11].

Gender-concordant consultations have been found to be longer than gender-discordant consultations [3,12], but other differences in outcomes are complex. Much of the literature in this area concerns communication and the patient-centredness of consultations. Female-female concordant consultations have been associated with greater patient-centred care [12,13] and gender-concordant dyads with greater understanding of the whole patient [14], greater communication [12] and more shared decision-making [15].

Other outcomes related to gender-congruence are less well-studied and evidence is mixed. Gender-concordance has been found to be inconsistently associated with delivery of various preventative care activities [16-20]. In primary care, gender concordance has been associated with better diabetic control [21], but not with quality of mental healthcare (except for drug or alcohol issues) [22], nor with assessing depression in the elderly.

While gender preference in physician-patient dyads has been demonstrated across a range of ethnic and cultural contexts [8-10,13] and dyadic preference may be more prominent in some ethnic groups [8,24,25], a singular consideration is that of Australian Aboriginal and Torres Strait Islander patients in whom a desire to be seen by a practitioner of the same sex regarding gender-specific issues is related to strong cultural and spiritual reasons [26,27].

We aimed to establish the prevalence and associations of gender-concordant and gender-discordant general

practice (family practice) consultations. We also sought to compare outcomes of gender-concordant and gender-discordant consultations. We studied Australian general practice registrars' ('trainees' or 'residents' in other programs) consultations. This is a particularly appropriate physician population for study as physician-gender related differences in patient satisfaction have been found to be greater with physician inexperience and in 'newly acquainted' dyads [28].

Methods

This study took place within the Registrar Clinical Experiences in Training (ReCEnT) study. ReCEnT is an ongoing multi-site cohort study of GP registrars. Participants are GP registrars training with 4 of Australia's 17 GP Regional Training Providers (RTPs) across 4 of Australia's 6 states. Registrars have recourse to clinical supervisors for advice and support when required, but function as independent practitioners (including for prescribing, referrals and billing).

The methodology has been described elsewhere [29]. GP registrars undertake data collection once during each 6-month training term (or 12-month term for part-time registrars) as part of their educational program. This results in registrars collecting data on 3 or 4 occasions during their training.

Initial data collection involves demographic, education and work experience of participating registrars as well as characteristics of the practice in which they are working. These parameters are recorded by each registrar *via* a paper-based questionnaire, each term. Registrars then record the details of 60 consecutive clinical consultations at approximately the mid-point of each term on a paper-based encounter form. Data collection is performed midway through the registrar's training term. As data collection is designed to reflect a 'normal' week of general practice, consultations in a specialised clinic, for example, vaccination clinic or Pap smear clinic, are excluded. Only office-based (not home visits or nursing home visits) consultations are recorded.

The collected data encompass 4 broad areas: (1) patient demographics; (2) diagnoses (or problems managed); (3) investigations/management (including referral and follow-up) & (4) educational training aspects (whether the trainee sought in-consultation advice from their trainer or information from other sources, or generated learning goals). Problems managed/diagnoses are coded according to the International Classification of Primary Care, second edition classification system (ICPC-2 plus) [30].

Outcome factor

The outcome factor in this study was whether a consultation involved a concordant (female-female, male-

male) or discordant (female-male, male-female) patient-physician dyad.

Independent variables

Independent variables related to registrar, patient, practice and consultation. Registrar factors were age, gender, training term, place of medical qualification (Australia/International), full-time/part-time status and whether the registrar previously worked at the practice. Patient factors were age, gender, Indigenous (Aboriginal or Torres Strait Islander) status, NESB (non-English speaking background), new patient to the practice and new patient to the registrar.

Factors related to the diagnosis or problem dealt with in the consultation were whether these were male/female sexual or reproductive diagnoses/problems (ICPC-2 Chapters: W (Pregnancy, Childbearing, Family Planning), X (Female Genital) and Y (Male Genital)), psychological diagnoses/problems (ICPC-2 plus Chapter: P (Psychological)) or chronic disease diagnoses/problems (classified according to the methodology of O'Halloran *et al*) [31].

Practice factors included rurality/urbanicity, practice size (number of Full-time equivalent GPs) and if the practice routinely bulk-bills (that is, there is no financial cost to the patient for the consultation). Practice postcode was used to define the Australian Standard Geographical Classification-Remoteness Area (ASGC-RA) classification (the degree of rurality) of the practice location [32] and to define the practice location's Socioeconomic Index for Area (SEIFA) Relative Index of Disadvantage [33].

Consultation-level factors included duration of consultation, number of problems addressed in the consultation, number of investigations ordered, if inconsultation information/advice/assistance was sought, if follow-up was organised and whether learning goals were generated for the registrar's post-consultation attention.

Statistical Analysis

This was a cross-sectional analysis of patient consultations from the longitudinal ReCEnT study. Analysis was performed on 7 rounds of data from 2010-2013. Only consultations involving patients 14 years or older were included, as gender concordance issues are less likely to operate in consultations with younger patients.

Percentage of registrars' consultations involving each of the 4 dyads was calculated, with 95% confidence intervals. To test registrar, patient and practice associations of a consultation involving a concordant patient-physician gender dyad, simple and multiple logistic regression was used with robust standard errors to account for the repeated measures on registrars. All variables with a p-value < 0.20 in the univariate analysis were included in the multiple regression model.

Univariate analyses (chi-square, t-tests or One-way Analysis of Variance, as appropriate) were used to test associations of gender-congruence with consultation-level variables (consultation duration, number of problems dealt with, referrals made, pathology ordered, follow-up organised, information or advice sought and learning goals generated).

In a *post-hoc* analysis, the individual type of pathology tests ordered were examined to assess the influence of paptest ordering on rates of pathology ordering. Statistical analyses used SAS v9.3. Predictors were considered statistically significant if the p-value was < 0.05

Ethical approval

The ReCEnT project has approval from the University of Newcastle Human Research Ethics Committee, Reference H-2009-0323.

Results

Five hundred and ninety-two individual trainees (response rate 93.4%) contributed 1167 trainee-rounds of data (including details of 56,234 individual consultations with patients 14 years or older). The demographics of the participating trainees and practices are presented in Table 1

Of all consultations, 62.9% (95% CIs 62.5-63.3) were gender-concordant (73.5% female-female, 26.5% malemale) and 37.1% (95% CIs 36.7-37.5) were gender-non-concordant (47% male physician-female patient, 53% female physician-male patient).

Associations of physician, patient and practice factors with having a gender-concordant consultation are presented in Table 2 and predictors of having a gender-concordant consultation in the logistic regression model are presented in Table 3. In the adjusted model, younger patient age (<55) and patient female gender and the registrar being part-time, younger and having worked at the practice prior to the current term were associated with having a gender-concordant consultation. A reproductive/contraceptive/genital problem addressed in the consultation was associated with gender concordance.

Both the patient being new to the practice and new to the registrar were associated with less chance of a gender-concordant consultation. Rather than Indigenous (Aboriginal or Torres Strait Islander status) being associated with gender-concordance of the consultation, there was, in fact, a non-significant trend (OR 0.82, p = 0.06) for these consultations to be gender-discordant.

Univariate consultation level variable (consultation content and outcomes) associations with gender concordance are presented in Table 4 and the associations of the 4 dyad-compositions of consultations are presented in Table 5. Gender-concordant consultations were significantly longer than gender-discordant consultations. Other associations were a greater number of problems addressed (though the effect size was small), more pathology ordered, more follow-up organised and more learning goals generated. Pap-smears constituted 5.5% of female-female dyad pathology tests and 0.9% of male physician-female patient dyad pathology tests.

Table 1 Participating registrar (trainee), registrar-term and practice characteristics

Variable	Class	n	%	(95% Cls) Or Mean (SD)
Registrar variables				` ,
Registrar Gender	Male Male	202	34.1%	(30.3-38)
-	Female	390	65.9%	(62-69.7)
Pathway registrar enrolled in	General	453	76.7%	(73.2-80.1)
, -	Rural	138	23.4%	(19.9-26.8)
Qualified as a doctor in Australia	No	138	23.8%	(20.3-27.2)
	Yes	443	76.3%	(72.8-79.7)
Registrar age (years)	Mean (SD)		32.9	(6.8)
Registrar year of graduation	Mean (SD)		204.9	(5.7)
Registrar-term or practice-term variable (n=1167)	s			
Registrar Training Term	Term 1	515	44.1%	(41.3-47)
	Term 2	328	28.1%	(25.5-30.7)
	Term 3	266	22.8%	(20.4-25.2)
	Term 4	58	5%	(3.7-6.2)
Registrar worked at the practice previously	No	859	74.8%	(72.3-77.3)
	Yes	289	25.2%	(22.7-27.7)
Registrar works fulltime	No	259	22.7%	(20.3-25.1)
-	Yes	882	77.3%	(74.9-79.7)
Does the practice routinely bulk bill	No	969	84.1%	(82-86.2)
	Yes	183	15.9%	(13.8-18)
Number of GPs working at the practice	1-4	375	32.8%	(30.1-35.5)
· ·	5-10+	769	67.2%	(64.5-69.9)
Rurality of practice	Major City	674	57.8%	(55-60.6)
• •	Inner Regional	348	29.9%	(27.2-32.5)
	Outer regional or remote	144	12.4%	(10.5-14.2)
SEIFA* Index (decile) of practice	Mean (SD)		5.6 (

^{*} Socioeconomic Index for Area (SEIFA) Relative Index of Disadvantage

Table 2 Characteristics associated with having a Gender Congruent Consultation (n=56,234)

		Gender Congruence		
		No	Yes	
Variable	Class	(n=20864)	(n=35370)	Р
Patient age group	14-24	3187 (35%)	5988 (65%)	<0.001
	25-39	4827 (35%)	9010 (65%)	
	40-54	4947 (37%)	8538 (63%)	
	55+	7903 (40%)	11834 (60%)	
Patient gender	Male	11054 (54%)	9364 (46%)	< 0.001
-	Female	9810 (27%)	26006 (73%)	
Patient Aboriginal or Torres Strait Islander	No	19633 (37%)	33492 (63%)	0.068
•	Yes	211 (42%)	297 (58%)	
Patient non-English speaking Background (NESB)	No	18853 (37%)	31895 (63%)	0.14
	Yes	1094 (35%)	2015 (65%)	
Patient status re. practice	Old Patient	8670 (36%)	15687 (64%)	< 0.001
•	New to Registrar	10282 (38%)	16582 (62%)	
	New to Practice	1356 (38%)	2194 (62%)	
Registrar full-time or part-time	Part-time	4173 (34%)	8202 (66%)	< 0.001
·	Full-time	16249 (38%)	26375 (62%)	
Registrar Training term	Term 1	9244 (37%)	15410 (63%)	0.4
	Term 2	5823 (37%)	10018 (63%)	
	Term 3	4694 (36%)	8203 (64%)	
	Term 4	1103 (39%)	1739 (61%)	
Registrar worked at the practice previously	No	15003 (37%)	26040 (63%)	0.024
	Yes	5487 (39%) [′]	8758 (61%) [´]	
Registrar qualified as a doctor in Australia	No	5560 (39%)	8708 (61%)	0.053
	Yes	14874 (36%)	25926 (64%)	
Practice size*	Small	7072 (39%)	11284 (61%)	0.025
	Large	13392 (36%)	23389 (64%)	
Does practice routinely bulk bill	No	17334 (37%)	29219 (63%)	0.6
, , , , , , , , , , , , , ,	Yes	3274 (37%)	5691 (63%)	
Practice location	Major City	11685 (36%)	20407 (64%)	0.0018
	Inner Regional	6179 (36%)	10812 (64%)	
	Outer Regional	3969 (42%)	4130 (58%)	
	Remote, Very Remote	(/	()	
Chronic problem	No.	13937 (36%)	24266 (64%)	< 0.001

	Yes	6927 (38%)	11104 (62%)	
Male/Female or sexual or reproductive diagnose/problem	No	18565 (41%)	26746 (59%)	<0.001
•	Yes	2299 (21%)	8624 (79%)	
Psychological problem	No	18157 (37%)	30753 (63%)	0.81
	Yes	2707 (37%)	4617 (63%)	
Socioeconomic status of practice location: SEIFA Index (decile)	Mean (SD)	5 (3)	6 (3)	0.15
Registrar age	Mean (SD)	34 (7)	33 (7)	0.0031

^{*} Large practice size ≥ 6 Full-time equivalent GPs

Table 3 Predictors of having a Gender Congruent Consultation, logistic regression model (n=56,234)

		Univariate		Adjusted	
Variable	Class	OR (95% CI)	Р	OR (95% CI)	Р
Patient age group	25-39	0.99 (0.93, 1.06)	0.83	0.98 (0.92, 1.05)	0.6
(Referent 14-24 years)	40-54	0.92 (0.86, 0.98)	0.007	1.01 (0.94, 1.08)	0.8
,	55+	0.8 (0.75, 0.85)	< 0.001	0.93 (0.87, 0.99)	0.03
Patient gender	Female	3.13 (2.14, 4.58)	< 0.001	2.77 (1.86, 4.14)	< 0.001
Aboringinal or Torres Strait Islander	Yes	0.83 (0.67, 1.01)	0.068	0.82 (0.67, 1.01)	0.06
Non-English Speaking Background	Yes	1.09 (0.97, 1.22)	0.14	1.06 (0.94, 1.2)	0.33
Patient status in relation to registrar and practice	New to Practice	0.89 (0.82, 0.98)	0.015	0.91 (0.83, 1)	0.04
(Referent: seen by registrar previously)	New to Registrar	0.89 (0.85, 0.94)	< 0.001	0.87 (0.83, 0.91)	< 0.001
Registrar Full-Time or Part-Time	Part-Time	1.21 (1.11, 1.32)	< 0.001	1.17 (1.07, 1.27)	< 0.001
Registrar worked at the practice previously	Yes	0.92 (0.85, 0.99)	0.024	0.91 (0.85, 0.98)	0.01
Qualified as a doctor in Australia	Yes	1.11 (1, 1.24)	0.053	0.98 (0.88, 1.1)	0.73
Practice size*	Large	1.09 (1.01, 1.18)	0.025	1.08 (1, 1.16)	0.05
Rurality	Inner Regional	1 (0.91, 1.11)	0.97	1.07 (0.97, 1.18)	0.16
(Referent: major city)	Outer Regional Remote of Very	0.8 (0.7, 0.91)	<0.001	0.89 (0.78, 1.02)	0.098
Chronia problem	Remote Yes	0.92 (0.88, 0.96)	<0.001	1.01 (0.96, 1.06)	0.67
Chronic problem		, , ,		, , ,	
Male/Female problem [®]	Yes	2.6 (2.32, 2.92)	< 0.001	1.92 (1.8, 2.05)	< 0.001
Registrar age		0.99 (0.98, 1)	0.0031	0.99 (0.99, 1)	0.024
SEIFA Index (decile) [#]		1.01 (1, 1.03)	0.15	1 (0.99, 1.02)	0.6

Table 4 Univariate associations of gender congruence of consultations

	Gender Congrue		
	Yes	No	Р
Consultation Duration [mean (SD)]	17.7 (9.4)	16.8 (9.2)	<0.001
Number of Problems [mean (SD)]	1.7 (0.9)	1.6 (0.8)	< 0.001
Referral Made	18.1 (17.7-18.5)	17.5 (17-18)	0.12
Pathology Ordered	28.5 (28-29)	22.1 (21.5-22.7)	< 0.001
Sources of Assistance Used in Consultation	20.5 (20.1-20.9)	20.1 (19.6-20.7)	0.34
Follow-up Organised	60.3 (59.8-60.8)	57.7 (57-58.3)	< 0.001
Generated Learning Goals from the consultation	22.4 (21.9-22.8)	21.2 (20.6-21.7)	0.001

Table 5 Univariate associations of consultation factors and gender dyads

	Gender Congruence (Dr-Patient) [% (95%CI)]				
	Female-Female	Male-Male	Male-Female	Female-Male	
		% (95	5%CI)		Р
Consultation Duration [mean(SD)]	18.2 (9.4)	16.4 (9.1)	16.4 (8.9)	17.1 (9.5)	< 0.001
Number of Problems [mean(SD)]	1.7 (0.9)	1.5 (0.8)	1.5 (0.8)	1.6 (0.8)	< 0.001
Referral Made	18.5 (18.0-19)	16.8 (16.1-17.6)	16.2 (15.4-16.9)	18.7 (18.0-19.5)	< 0.001
Pathology Ordered	31.2 (30.6-31.8)	21.0 (20.1-21.8)	22.5 (21.7-23.3)	21.8 (21.0-22.5)	< 0.001
Sources of Assistance Used in Consultation	21.7 (21.2-22.2)	17.3 (16.5-18)	17.3 (16.6-18)	22.7 (21.9-23.5)	<0.001
Follow-up Organised	61.8 (61.2-62.4)	56.1 (55.1-57.1)	54.7 (53.7-55.7)	60.3 (59.4-61.2)	< 0.001
Generated Learning Goals from the consultation	23.7 (23.1-24.2)	18.8 (18.0-19.6)	18.0 (17.2-18.7)	24.0 (23.2-24.8)	<0.001

^{*} Large practice size ≥ 6 Full-time equivalent GPs

* Large practice size ≥ 6 Full-time equivalent GPs

* ICPC-2 plus chapters: W (Pregnancy, Childbearing, Family Planning), X (Female Genital) and Y (Male Genital)

* Socioeconomic Index for Area (SEIFA) Relative Index of Disadvantage

Discussion

Gender-concordant consultations were more common than discordant consultations in this population of GP registrars. The prevalence of gender-concordant consultations may have been even somewhat higher had 'special' clinics such as pap-smear and 'well-women' clinics not been excluded by our methodology.

Gender-concordance was associated with a number of patient and registrar demographic factors and with a reproductive or genital problem being dealt with in the consultation. Contrary to an hypothesised positive association of Aboriginal or Torres Strait Islander status with gender-concordance, these patients were less likely to have gender-concordant consultations (with non-significant trends on both univariate and multivariate analyses).

There was evidence of gender-concordant consultations being more 'complex' than gender-discordant: being longer, dealing with slightly more problems, generating more pathology-testing (not accounted for by pap-testing), being followed-up more frequently and generating more learning goals for post-consultation attention.

Our findings of a high prevalence of genderconcordant consultations (62.9%) compares with 51.9% in a large US study [17], but comparisons are limited as this outcome will be influenced by the proportion of male and female physicians (the patient gender proportion being relatively consistent between primary care studies). Our study had a higher proportion of female physicians than other studies in this area. Though not a direct comparison, previous findings of 70.5% of female residents' consultations being with female patients versus 63.1% of male residents' consultations being with female patients [34] are relevant. Similarly, male primary care physicians are more likely than female physicians to see a male patient (31.6% versus 22.3% of consultations) [3]. Also relevant are the findings of female patients in family practice being more likely to see a female physician (26.4%) than are male patients (15.2%) [16].

The finding of older patients (aged > 55 years) being less likely than younger patients to have gender-concordant consultations is consistent with previous literature on younger age being associated with greater gender-concordance [6].

That female patients are more likely to have gender-concordant consultations is not surprising. Preferences of female patients for female physicians for general care, preventative health and gynaecological issues [8,10,23] and female patients' greater trust of female physicians [20] have been found previously. Preference for choice of a gender-congruent GP by female, but not male, patients has also been demonstrated in the United Kingdom (UK) [7] and gender-concordance was not a priority for adolescent males in a US study [11].

The association of genital and/or reproductive problems and gender-concordance is consistent with

previous research, including research involving US family practice residents [34,35] (equivalent to Australian GP registrars). In a UK general practice study, genital but not reproductive problems were associated with gender-concordance [7].

Markers of the patient not being 'new' to the registrar or practice (that is, the registrar having worked at the practice prior to the current term and the patient having been seen by the registrar, or at the practice, before) being associated with gender-concordance may indicate that gender concordance is something that is 'sought' by the patient rather than being random [7]: patients new to the practice or who have not seen the registrar before would be less likely to be able to nominate the GP of their choice. The borderline significance (p=0.05) and non-significant trend (p=0.098), respectively, of smaller practices and rural and remote practices having less gender congruent consultations is consistent with this in that there might be less scope for choice of doctor in smaller practices and towns.

A concerning finding was the lack of association of patient Aboriginal and Torres Strait Islander status with gender-concordant consultations (in fact, a non-significant trend to non-concordant consultations was found). Despite the cultural importance of 'men's business' and 'women's business' [26,27], the gender concordance of Aboriginal and Torres Strait Islander consultations has not, to our knowledge, been examined previously.

In terms of consultation content and outcomes, previously established findings of greater consultation length for gender-congruent consultations, particularly for female-female dyads [3,12], are consistent with our findings. The several other consultation level associations in our study have not been demonstrated previously, but our interpretation of these as markers of 'complexity' can be seen as consistent, to some extent, with previous literature of gender-concordant consultations being associated with patient-centred care [12,13] greater understanding of the whole patient [14], communication [12] and shared decision-making [15].

The generalizability of the study is strong, given the participation of 4 of Australia's 17 RTPs, in 4 of Australia's 6 states, the registrar demographics resembling those of Australian registrars overall and the reach of practice location across all urban/rural classifications. Additionally, our response rate (93.4%) is singularly high for a study of GPs [36]. The large number of independent variables collected contemporaneously enables a more detailed examination of the associations of gender concordance of consultations than provided by previous studies. A limitation of the study is that data were not recorded for the purpose of examining gender effects and so patient and physician attitudes to the role of gender in the consultation and attribution of consultation outcomes to gender effects are beyond the scope of the study.

The findings related to patient 'choice' of practitioner gender in this study should be considered together with the findings regarding greater 'complexity' (duration, number of problems, more pathology-testing, more follow-up and generating more learning goals) of gender-concordant consultations. The implication is that gender-concordant

consultations may be sought by the patient in order to accommodate clinical complexity. Thus, our findings of these consultations being both 'sought' and 'complex' suggest a need for appropriate access. Efforts should be made in general practice to provide access to gender-congruent consultations. Provision of such access may involve structural and procedural changes that promote availability of both male and female GPs within practices and patient choice regarding the gender of their doctor for a particular consultation. The observed temporal trend to larger general practices [37-39] might be thought to facilitate implementation of these policies, though the effect of practice size on access may be complex [38,39].

Nowhere is the issue of gender-concordance more acute than in the area of Aboriginal and Torres Strait Islander health in Australia. The cultural imperatives of gender-congruence, especially concerning consultations involving 'women's business' [27], do not appear to be being met in our study population and should be an area for policy review.

Conclusions

We have established the prevalence and associations of gender concordance in the consultations of physicians and patients in general practice training. The findings regarding 'complexity' of consultations and 'choice of practitioner' suggest that this is an area that should be addressed *via* specific practice policies in order to increase this particular facet of the person-centeredness of family doctor consultation and relationships.

Acknowledgements and Conflicts of Interest

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