

Preferences for gender of family physician among Canadian European-descent and South-Asian immigrant women

Ahmad F, Gupta H, Rawlins J & Stewart DE

"This is a pre-copyedited, author-produced PDF of an article accepted for publication in Family Practice following peer review. The version of record

Ahmad F, Gupta H, Rawlins J & Stewart DE. Preferences for gender of family physician among Canadian European-descent and South-Asian immigrant women. Family Practice 2002. 19(2):146-53.

is available online at: <https://dx.doi.org/10.1093/fampra/19.2.146>."

ABSTRACT

Objective. The aim of this study was to investigate expressed preferences for family physician (FP) gender among Canadian European-descent (CED) and Canadian South-Asian (CSA) immigrant women.

Method. An 'on-site' survey was conducted in community-based institutions in Toronto in order to determine preferences for the gender of FP under various health care scenarios: overall health care; gender-sensitive examinations; emotional problems; general ailments; and life-threatening conditions.

Results. Ninety-four women responded to this survey (CED = 50, CSA = 44), response rate 77.3%. For all health care scenarios, CED and CSA women similarly expressed either a preference for a female FP or no preference. More than two-thirds of women preferred a female FP for gynaecological examinations (CED, 72.9%; CSA, 83.7%) or examinations with private body part exposure (CED, 72%; CSA, 81.8%). For 'emotional problems', half of the women preferred a female FP and the other half had no preference. A similar pattern was observed for 'overall health care', with some shift to female physician preference among CSA women (60.5%) compared with CED women (53.2%). For the 'overall health care' scenario, CED and CSA women who preferred a female FP had a higher frequency of seeing female physicians within the last 5 years (CED, $P \leq 0.01$; CSA, $P \leq 0.05$), and attributed 'positive' social skills more to female physicians (CED, $P \leq 0.01$; CSA, $P \leq 0.01$) compared with women with no preference for the gender of the FP. Yet, CED women with a female FP preference were more likely to have a concurrent female FP ($P \leq 0.01$), and to rate past experiences with female physicians as high ($P \leq 0.01$) and with male physicians as low ($P \leq 0.05$) compared with CED women with no preference. In the CSA group, women with a preference for a female FP were more likely to be unemployed ($P \leq 0.01$) and have low social support ($P \leq 0.01$).

Conclusions. Despite similar physician gender preference patterns, factors associated with these preferences show some differences between CED and CSA women.

Key Words

Family physician; Gender; Preferences; Women

Introduction

Preferences for same-gender physicians are expressed by 20–45% of men and women patients.^{1–4} However, women express stronger preferences for same-gender physicians when choosing family physicians and/or gynaecologists.^{1,3,4} Moreover, the lower proportion of females in the medical profession may impact optimal use of health services by women who prefer female

physicians.³ This is demonstrated by several studies on women's preventive health behaviours, such as breast and cervical cancer screening, suggesting women's lower compliance and/or satisfaction with the recommended regime if their physician is of the opposite gender.⁵

A number of recent studies have explored women's preferences for the gender of their physicians. Possible explanations for this preference include the nature of the required clinical care;^{1,3,4,6} physician's attitudes and communication style;^{7,8} patients' stereotyping of physicians;¹ patient's prior contact with same-gender physicians;^{1,3} the quality of patient's past experiences with male and female physicians;³ and the age of patients.^{3,9} However, most of these explanations are specific to majority culture populations of North America and Europe. Very little is

known about women's preferences for physician gender among different ethnic groups, including immigrant women.

Cultural beliefs, norms and values affect the manner in which health, illness prevention and sources of treatment are perceived.¹⁰ This is important for countries where a significant segment of the population is comprised of immigrants, such as Canada, the USA, the UK and New Zealand. In Canada, one out of five women is an immigrant.¹¹ Furthermore, there is an increasing influx of immigrants from Asia¹² who may have less linguistic, ethnic and cultural congruence with the majority culture population which is comprised of European descendants. For example, one of the most fundamental cultural differences is the distinction between individualistic and collectivistic values.¹⁰ In general, Asian cultures are collectivistic in nature where people are motivated by the 'common good'. Therefore, patterns of health-seeking behaviours, including preferences for physician gender, may be modelled entirely within the extended family, unlike their North American and European counterparts whose priority may lie with individualistic perspectives.¹³ Furthermore, societal values influence the nature and consequences of patient autonomy and medical paternalism.¹⁴ Physician-training models in Asian countries are relatively traditional, with a marked power hierarchy between the doctor and patient. The magnitude of this hierarchical physician-patient relationship may increase for women from patriarchal cultures. Hence, migrants from these countries may have different preferences for the gender of their family physician or different sets of reason for these preferences.

This study was developed to examine preferences for the gender of family physicians among Canadian-born European-descent (CED) and Canadian South-Asian (CSA) immigrant women. The study aimed to investigate similarities and differences across targeted groups with respect to (i) preferences for gender of family physicians in different health care scenarios; and (ii) factors associated with the preference for family physician gender. It was hypothesized that women's sensitive health care needs, increased exposure to female physicians, better past experiences with female physicians and positive stereotyping of female physicians will be associated with an expressed preference for female physicians. It was also hypothesized that CSA immigrant women will express a stronger preference for a female family physician compared with CED women, especially for gynaecological examinations and emotional or family problems.

Methods

Participants

Participants in this study included CED and CSA immigrant women over 18 years of age. Recruitment criteria for the CSA group comprised of being a first-generation

immigrant from South Asia who had parents born in South Asia. For the CED group, Canadian-born women of European descent with Canadian-born parents were eligible to participate. Study subjects were selected from community institutions such as immigration and settlement agencies for CSA women, and schools, universities, senior day-care and fitness centres for CED women. A total of 130 women were invited to participate in the study, 65 for each targeted group.

Study design and questionnaire

The data were collected by 'on-site' survey at the community agencies within the Greater Toronto Area. The survey tool comprised a self-administered English questionnaire. Prior to survey administration, the questionnaire was pre-tested for language simplicity and clarity followed by appropriate research ethics approval. Two medical students gathered data at the community agencies. All eligible clients, physically present at the agencies, were invited to participate in the study. After an expressed willingness to participate, written consent was obtained from each participant. South-Asian immigrant women with English language difficulties were offered assistance to complete the questionnaire by one of the medical students who spoke Hindi.

The questionnaire obtained information about socio-demographic characteristics, perceived health, preferences for the gender of family physician and factors associated with these preferences. Socio-demographic information included age, marital status, education, employment status, annual household income and perceived social support. The outcome variable, women's preferences for the gender of family physician, was measured for six health care scenarios by offering five options of 'prefer a female physician' ('somewhat' or 'a lot'), 'no preference' and 'prefer a male physician' ('somewhat' or 'a lot'). The six health care scenarios were overall health care, gynaecological examinations, examination with private body part exposure, family and emotional problems, general ailments and life-threatening conditions. The section on factors which were hypothesized to have associations with gender preferences consisted of exposure to female physicians in the last 5 years (one item), quality of overall experiences with male and female physicians (two items), gender of current family physician (one item) and beliefs about physician attributes (16 items). Beliefs about physician's attributes (BPA) were derived from the literature under the themes of caring qualities, democratic and traditional attitudes, professional competence and hurriedness. This section was operationalized through options of 'not gender specific'; 'somewhat like a male or female physician'; and a 'lot like a male or female physician' (coded as 0, 0.5 and 1).

Statistical analysis

Comparative analyses between and within CED and CSA groups were carried out using chi-square analyses

and Student *t*-test (two-tailed) for the outcome variable, i.e. preferences for gender of family physician. As very few women reported a preference for male family physicians, the analyses focused on preference for female family physician versus no preference for gender. To predict the outcome variable, direct logistic regression analyses were performed separately for CED and CSA groups; predictor variables were derived from comparative analyses. Prior to comparative analysis, the structural relationship of the 16 variables in the BPA section was factor analysed using principal component analysis with varimax rotation. For interpretation of factors, criteria of eigenvalues >1, scree plot, rotation sums of squared loadings >18% and factor loadings >0.68 were used. This resulted in identification of two factors 'social skills' and 'hurriedness'. The factor 'social skills' consisted of four physician attributes: 'makes patients feel secure and comfortable'; 'interested in patients' total situation'; 'concerned about patients' emotions'; and 'invites patients' participation in treatment decision'. The factor 'hurriedness' consisted of four physician attributes: 'interrupts the patient'; 'leaves the patient with unanswered questions'; 'chooses treatment without consulting the patient'; and 'seems disorganized'. For further analysis, the total scores of 'social skills' and 'hurriedness' were computed separately, followed by the acquisition of their

mean scores. The data were analysed using Statistical Package for the Social Sciences (SPSS) version 10.1.

Results

Overall, 94 women participated in the study with a response rate of 72.3%. Participants included 50 (53.2%) CED and 44 (46.8%) CSA immigrant women. The CED and CSA women were similar in mean age, education level, employment status, annual household income, self-perceived health and having a regular family physician (Table 1). However, 77.3% of the CSA women currently were married or living with partner compared with 38% of the CED women. Similarly, 93.2% of the CSA women had children compared with 36% of the CED women. The mean number of years as residents of Canada for CSA women was 10.7 years (SD, 8.86), and 54.5% of women reported good or excellent English language skills.

For six health care scenarios, women expressed either a preference for a female family physician or no preference. Preference for a male physician was expressed by a maximum of three women in any scenario; hence, responses of these participants were not analysed further. Comparison of female preference and no preference for

TABLE 1 Women's sociodemographic characteristics by ethnicity

Variables	CED women (<i>n</i> = 50)	CSA women (<i>n</i> = 44)
Age in years, mean	41.7 (SD ± 19.8)	43.9 (SD ± 14.4)
Marital status, %*		
Married/living with partner	38.0 (CI 24.6–51.5%)	77.3 (CI 64.9–89.7%)
Separated/Divorced/Widowed	16.0 (CI 5.8–26.2%)	13.6 (CI 23.7–35.0%)
Single, never married	46.0 (CI 32.2–59.8%)	9.1 (CI 0.06–17.6%)
Had children, %*	36.0 (CI 22.7–49.3%)	93.2 (CI 85.8–100%)
Education, %		
School, some or complete	16.0 (CI 5.8–26.2%)	32.6 (CI 18.6–46.6%)
College, some or complete	32.0 (CI 19.1–44.9%)	23.3 (CI 10.7–35.9%)
University, some or complete	52.0 (CI 38.2–65.8%)	44.2 (CI 29.3–59.1%)
Employment status within last year, %		
Not employed	20.0 (CI 8.9–31.1%)	40.5 (CI 25.7–55.3%)
Part-time employed	20.0 (CI 8.9–31.1%)	19.0 (CI 30.9–71.0%)
Full-time employed	60.0 (CI 46.4–73.6%)	40.5 (CI 25.7–55.3%)
Annual household income, %		
Less than 30 000	22.2 (CI 10.1–34.5%)	45.0 (CI 30.0–60.4%)
30 001–40 000	15.6 (CI 5.0–26.2%)	15.0 (CI 39.0–26.1%)
40 001–50 000	15.6 (CI 5.0–26.2%)	5.0 (CI 1.80–11.8%)
50 001–60 000	17.8 (CI 6.6–29.0%)	12.5 (CI 22.7–23.0%)
More than 60 000	28.9 (CI 15.7–42.1%)	22.5 (CI 9.60–35.4%)
Had a regular family physician, %	92.0 (CI 85.4–100%)	95.5 (CI 87.4–100%)
Self-perceived health, ^a mean	3.64 (SD ± 1.14)	2.69 (SD ± 0.84)

CED, Canadian-born European-descent; CSA, Canadian immigrant South-Asian; CI, 95% confidence interval.

*Statistically significant differences, *P* ≤ 0.001.

^aScale 1–5: poor to excellent.

the gender of family physician (Table 2) revealed that approximately two-thirds of CED and CSA women had no gender preference when health care needs were for general ailments or life-threatening conditions. However, a strong preference for a female family physician was expressed when visits involved gynaecological examinations (CED, 72.9%; CSA, 83.7%), and examinations with private body part exposure (CED, 72%; CSA, 81.8%). For emotional and family problems, half of the women preferred a female family physician and the other half had no preference. A similar pattern was observed for 'overall health care', with some shift to female physician preference among CSA women (60.5%) compared with CED women (53.2%). CED and CSA women did not differ statistically in their gender preferences for family physician for any of the six health care scenarios.

Overall health care scenario

Group-specific bivariate and regression results are included for women with an expressed preference for a female family physician versus women with no preference.

CED women who preferred a female family physician for overall health care (Table 3) were more likely to be single (chi-square = 7.52, d.f. = 2, $P \leq 0.01$), and to have a female family physician (chi-square = 6.91, d.f. = 2, $P \leq 0.01$) compared with CED women with no preference. Also, they had a higher frequency of seeing a female physician in the last 5 years ($t = 2.08$, d.f. = 44, $P \leq 0.05$). In terms of overall quality of past experiences with physicians, women with a female physician preference rated female physicians higher ($t = 2.61$, d.f. = 43, $P \leq 0.01$) and male physicians lower ($t = 2.11$, d.f. = 45, $P \leq 0.05$). CED women with a female physician preference perceived the physician's positive 'social skills' attribute as more typical of female physicians compared with women with

no preference ($t = 3.51$, d.f. = 44, $P \leq 0.01$). A direct logistic regression analysis was performed on preference status with the predictor variables mentioned above, except 'frequency of seeing a female physician'; the latter variable was not entered because of its strong correlation with having a concurrent female family physician (Pearson correlation coefficient 0.7). A test of the full model against the constant-only model was statistically reliable, chi-square (5, $n = 40$) = 25.79, $P \leq 0.000$. The predictor variables, as a set, accounted for 63.4% of variance (Nagelkerke R^2) in the outcome variable, with prediction success of 75% for female preference and 80% for no preference. Table 5 shows regression coefficients, Wald statistics, odds ratio and significance of odds ratio for each of the predictor variables.

CSA women with a preference for a female family physician for overall health care (Table 4) were less likely to be employed (chi-square = 6.56, d.f. = 2, $P \leq 0.01$) and rated their self-perceived social support as low ($t = 2.89$, d.f. = 40, $P \leq 0.01$). CSA women with a preference for a female physician reported a higher frequency of seeing a female physician in the last 5 years ($t = 1.99$, d.f. = 37, $P \leq 0.05$) and characterized positive 'social skills' as more typical of female physicians compared with women who had no preference ($t = 3.03$, d.f. = 40, $P \leq 0.01$). In direct logistic regression analysis, predictor variables included: employment status; social support; frequency of seeing a female physician; and physician's social skills. A test of the full model against the constant-only model was statistically reliable, chi-square (4, $n = 37$) = 15.7, $P \leq 0.01$. The model explained 45.5% of the variance (Nagelkerke R^2) in the outcome, with the prediction success of 53.8% for no preference and 87.5% for a female preference. A regression model with inclusion of marital status did not change the outcome variance significantly. For details on each predictor variable, see Table 5.

TABLE 2 Preferences for family physician gender

Health care scenarios	Preferred female FP		No gender preference	
	CED %	CSA %	CED %	CSA %
Overall health care	46.8	60.5	53.2	39.5
Gynaecological examinations (including Pap test)	72.9	83.7	27.1	16.3
Examinations with private body part exposure (e.g. clinical breast exam)	72.0	81.8	28.0	18.2
Family problems and emotional problems (e.g. abuse, depression)	52.0	50.0	48.0	50.0
General ailments (e.g. cold, flu, stomach pain)	25.0	30.0	75.0	70.0
Life-threatening conditions	29.2	20.5	70.8	79.5

CED, Canadian-born European-descent ($n = 47$); CSA, Canadian immigrant South-Asian ($n = 43$); FP, family physician. None of the chi-square tests were significant at $P \leq 0.05$.

TABLE 3 Determinants of preference for female family physician of Canadian-born European-descent women (n = 47) and overall health care

Variables	Preferred female FP (n = 22)	No gender preference (n = 25)	Test significance	
			χ^2	t-value
Age in years, mean	39.1 n = 21	45.0 n = 25		
Marital status, %				
Ever married/living with partner	36.4 n = 8	76.0 n = 19	7.52**	
Never married	63.6 n = 14	24.0 n = 6		
Had children, %	31.8 n = 7	40.0 n = 10		
Education, %				
School, some or complete	18.2 n = 4	12.0 n = 3		
College/University, some or complete	81.8 n = 18	88.0 n = 22		
Employment status within last year, %				
Not employed	22.7 n = 5	20.0 n = 5		
Part-time/Full-time employed	77.3 n = 17	80.0 n = 22		
Chose regular family physician alone, %	45.0 n = 9	55.0 n = 11		
Had female family physician, %	76.2 n = 16	36.4 n = 8	6.91**	
Perceived social support, ^a mean	4.05 n = 22	4.08 n = 25		
Seeing a female physician in last 5 years, ^b mean	3.57 n = 21	2.72 n = 25		2.08*
Overall experience with male physicians, ^c mean	2.86 n = 22	3.48 n = 25		2.11*
Overall experience with female physicians, ^c mean	4.05 n = 22	3.39 n = 23		2.61**
Perceived physician social skills, ^d mean	1.48 n = 21	0.26 n = 25		3.51**

Statistically significant differences, * $P \leq 0.05$ and ** $P \leq 0.01$.

^aScale 1–5: weak to strong.

^bScale 1–5: never, 25%, 50%, 75%, always.

^cScale 1–5: poor to excellent.

^dScale 0–1: not gender specific, somewhat like a female physician, more like a female physician.

Interpretation of logistic regression analyses requires caution as the case to variable ratio was 8 and 9 per variable for the CED and CSA group, respectively, which is fewer than 10 subjects per predictor as suggested by Norman and Streiner.¹⁵

Discussion

The results of the study have several implications for future research and initiatives to facilitate physician–patient communication, although the generalizability of the findings is limited by the recruitment strategy. Irrespective of ethnicity, participant women highly preferred a female family physician for visits that require gender-specific examinations such as gynaecological examinations. Although this has also been demonstrated by other studies,^{1–4,6,7,9} our findings are unique in revealing similar patterns and lack of statistically significant differences between South-Asian immigrant and European-descent Canadian-born women. However, there are group-specific factors associated with these similar preferences. This study emphasizes the relationship of culture-specific

values, norms and experiences with preferred use of health services such as visits to female family physicians.

It is acknowledged that country-specific migration policies may lead to regional differences among immigrants, as a group, and even within specific immigrant subgroups such as South-Asians. For example, immigration to Canada is an ongoing national policy based on a scoring system where primary applicants are assessed for the professional skills required by the country. Therefore, the principal migrants arriving in Canada under the ‘independent’ category are likely to be educated and skilled. This policy brings homogeneity within Canadian immigrants but, Canadian immigrants, as a group, may differ from immigrants of other countries where waves of migrants arrived only during certain years under labour contracts. However, these cross-country differences are likely to be less conspicuous for immigrant women especially from South Asia because the majority arrive as dependants with no scoring requirements for education or professional skills.

Our hypothesis that South-Asian women would have significantly higher preference for female physicians in various health care scenarios compared

TABLE 4 Determinants of preference for female family physician of Canadian immigrant South-Asian women (n = 43) and overall health care

Variables	Preferred female FP (n = 26)	No gender preference (n = 17)	Test significance	
			χ^2	t-value
Age in years, mean	46.6 n = 26	39.8 n = 15		
Marital status, %				
Ever married/living with partner	88.5 n = 23	94.1 n = 16		
Never married	11.5 n = 3	5.9 n = 1		
Had children, %	96.2 n = 25	88.2 n = 15		
Education, %				
School, some or complete	40.0 n = 10	23.5 n = 4		
College/University, some or complete	60.0 n = 15	76.5 n = 13		
Employment status within last year, %				
Not employed	53.8 n = 14	13.3 n = 2		
Part-time/Full-time employed	46.2 n = 12	86.7 n = 13	6.56**	
Chose regular family physician alone, %	26.1 n = 6	50.0 n = 8		
Had female family physician, %	52.2 n = 12	46.7 n = 7		
Perceived social support, ^a mean	2.27 n = 26	3.13 n = 16		2.89**
Seeing a female physician in last 5 years, ^b mean	3.33 n = 24	2.69 n = 16		1.99*
Overall experience with male physicians, ^c mean	2.77 n = 26	2.94 n = 17		
Overall experience with female physicians, ^c mean	3.38 n = 26	3.06 n = 17		
Perceived physician social skills, ^d mean	1.93 n = 26	0.81 n = 16		3.03**

Statistically significant differences: * $P \leq 0.05$ and ** $P \leq 0.01$.

^aScale 1–5: weak to strong.

^bScale 1–5: never, 25%, 50%, 75%, always.

^cScale 1–5: poor to excellent.

^dScale 0–1: not gender specific, somewhat like a female physician, more like a female physician.

TABLE 5 Logistic regression analysis: preference for gender of physician in overall health care (female preference = 1 and no preference = 0)

Variable	B	Wald test	Odds ratio	Significance
CED women (n = 40)				
Marital status (single, never married = 1)	2.65	6.77	14.45	0.01
Gender of doctor (female = 1)	1.27	1.49	3.57	0.22
Overall experience with male physicians	-0.48	0.63	0.62	0.43
Overall experience with female physicians	0.75	1.15	2.12	0.28
Perceived physician social skills	1.03	4.68	2.79	0.03
(Constant)	-4.12	3.16		
CSA women (n = 37)				
Employment status (not-employed = 1)	1.93	3.66	6.89	0.06
Social support	-0.69	1.94	0.49	0.16
Seeing female physician in last 5 years	0.63	2.15	1.87	0.14
Perceived physician social skills	0.93	4.07	2.54	0.04
(Constant)	-1.28	0.38		

CED, Canadian-born European-descent; CSA, Canadian immigrant South-Asian; B, coefficient estimated for the model.

with European-descent Canadian born women was refuted. This finding points to the universality in women's preference for same-gender physicians. The culture-specific norms or values mean little when it comes to personal preference for the gender of a family

physician. However, transformation of a personal preference to actual selection of a physician may encounter socio-cultural influences and systemic barriers. As our study illustrates, South-Asian immigrant women who preferred a female physician were less likely to select a

female family physician compared with European-descent women with a similar preference. Based on other studies, one possible explanation might be the greater value given to the languages spoken by the family physician rather than the gender of the physician among immigrant women.¹⁶⁻¹⁸ In our study, just over half of the South-Asian participants had good or excellent English-speaking abilities. Nevertheless, the mismatch between preferred and accessible health services is of concern, especially for the uptake of preventive gender-sensitive screenings when health benefits may appear to be far in the future to patients. The study results suggest a need to improve physician-patient communication (including better interpreter services) to help in improving equitable access to preferred health care providers among women of all backgrounds.

Study participants of either background who expressed a preference for a female family physician for overall health care had a higher frequency of seeing a female family physician in the last 5 years and perceived positive social skills as a more typical attribute of female physicians. This is consistent with other published studies conducted with western majority culture women;^{7,8} however, our study also reports a parallel pattern among South-Asian immigrant women. The attribution of positive social skills to female physicians reflects the importance of physician-patient communication style among women of both groups. In addition, CED and CSA women with a female preference rated the quality of past experiences with female physicians better compared with women with no preference; although the difference was statistically significant for European-descent women only. The explanation might lie in results of some other studies indicating that female family physicians provide more counselling,¹⁹ have a longer consultation time, spend more time listening to their patients and give selective attention to preventive health care^{20,21} and female health issues⁹ than male physicians. Analysis of the literature by Roter and Hall¹⁴ reports that female physicians show a greater affinity for collaborative models of physician-patient relationship than do their male colleagues. Further research would be helpful in establishing strategies to address women's concerns about physician-patient communication style.

South-Asian participants with a preference for a female family physician were more likely to be unemployed and have limited social support (i.e. friends and relatives) as compared with women with no gender preference. Migration inevitably is associated with a period of significant adjustment and re-orientation. During early years of immigration, people encounter not only cultural, socio-economic and systemic barriers but also separation from family and community which may lead to inadequate emotional and social support.²² When inadequate social support is factored into women's multiple care-giving responsibilities in the patriarchal and collectivistic nature of South-Asian culture (which gives priority to

family rather than self), social isolation outside the family sphere is likely to perpetuate.²³ Hence, South-Asian immigrant women may perceive their encounters with same-gender physicians as a source of psychosocial support and empowerment. This emphasizes the importance of social support and integration opportunities for South-Asian immigrant women, and how social influences relate to use of health services. Future research would be useful in directly testing some of these hypotheses and in-depth exploration of socio-cultural determinants of preferences for family physician gender across ethnic groups.

Conclusions

This study contributes to the existing knowledge on similarities and differences across ethnic groups with respect to gender preferences for family physicians. Among study participants, preferences for same-gender family physicians were similar among European-descent Canadian-born and South-Asian immigrant women. Two-thirds of women preferred female physicians for gender-sensitive examinations. In both groups, higher appreciation of a physician's social skills was associated with preference for a female physician. Moreover, among South-Asian immigrant women, preference for a female family physician was associated with their integration status, such as employment and psychosocial support. The study results have implications for improving means of physician-patient communication.

References

- 1 Fennema K, Meyer DL, Owen N. Gender of physician: patients' preferences and stereotypes. *J Fam Pract* 1990; **30**: 441-446.
- 2 Weyrauch KF, Boiko PE, Alvin B. Patient gender role and preference for a male or female physician. *J Fam Pract* 1990; **30**: 559-562.
- 3 Kerssens JJ, Bensing JM, Andela MG. Patient preference for gender of health professionals. *Soc Sci Med* 1997; **44**: 1531-1540.
- 4 Gaffly J. Patient choice in a practice with men and women general practitioners. *Br J Gen Pract* 1990; **40**: 13-15.
- 5 Lurie N, Margolis KL, McGovern PG, Mink PJ, Slater JS. Why do patients of female physicians have higher rates of breast and cervical cancer screening? *J Gen Intern Med* 1997; **12**: 34-43.
- 6 Schmittiel J, Selby JV, Grumbach K, Quesenberry CP Jr. Women's provider preferences for basic gynecology care in a large health maintenance organization. *J Women's Health Gender-Based Med* 1999; **8**: 825-833.
- 7 Elstad JJ. Women's priorities regarding physician behavior and their preference for a female physician. *Womens Health* 1994; **21**: 1-19.
- 8 Bertakis KD, Helms J, Callahan EJ, Azari R, Robbins JA. The influence of gender on physician practice style. *Med Care* 1995; **33**: 407-416.
- 9 van den Brink-Muinen, Bakker DH, Bensing JM. Consultations for women's health problems: factors influencing women's choice of gender of general practitioner. *Br J Gen Pract* 1994; **44**: 205-210.
- 10 Pasick RJ, D'Onofrio CN, Otero-Sabogal R. Similarities and differences across cultures: questions to inform a third generation for health promotion research. *Health Educ Q* 1996; **23**: S142-S161.

- ¹¹ Statistics Canada. *Women in Canada 2000: A Gender-based Statistical Report*. Ottawa: Ministry of Industry, 2000.
- ¹² Statistics Canada. Immigrant Population by Place of Birth, 1996 Census, Canada, the Provinces and Territories. <http://www.statcan.ca/english/Pgdb/People/Population/demo35a.html> 2000.
- ¹³ True RH, Guillermo T. Asian/Pacific Islander American women. In Bayne-Smith M (ed.). *Race, Gender, and Health*. Thousand Oaks (CA): Sage, 1996: 94–120.
- ¹⁴ Roter DL, Hall JA. Why physician gender matters in shaping the physician–patient relationship. *J Womens Health* 1998; **7**: 1093–1097.
- ¹⁵ Norman GR, Streiner DL. Logistic Regression. In Norman GR and Streiner DL (eds). *Biostatistics: the bare essentials*. Hamilton: B.C. Decker Inc., 2000: Ch. 15.
- ¹⁶ Ahmad WI, Kernohan EE, Baker MR. Patients' choice of general practitioner: influence of patients' fluency in English and the ethnicity and gender of the doctor. *J R Coll Gen Pract* 1989; **39**: 153–155.
- ¹⁷ Naish J, Brown J, Denton B. Intercultural consultations: investigation of factors that deter non-English speaking women from attending their general practitioners for cervical screening. *Br Med J* 1994; **309**: 1126–1128.
- ¹⁸ Kelaher M, Gillespie AG, Allotey P *et al*. The Transtheoretical Model and cervical screening: its application among culturally diverse communities in Queensland, Australia. *Ethn Health* 1999; **4**: 259–276.
- ¹⁹ Bensing JM, van den Brink-Muinen A, Bakker DH. Gender differences in practice style: a Dutch study of general practitioners. *Med Care* 1993; **31**: 219–229.
- ²⁰ Woodward CA, Hutchison BG, Abelson J, Norman G. Do female primary care physicians practice preventive care differently from their male colleagues? *Can Fam Physician* 1996; **42**: 2370–2379.
- ²¹ Osbon EH, Bird JA, McPhee SJ, Rodnick JE, Fordham D. Cancer screening by primary care physicians. Can we explain the differences? *J Fam Pract* 1991; **32**: 465–471.
- ²² WHO Regional Office for Europe. *The Solid Facts: Social Determinants of Health*. WHO Regional Office for Europe, 1998.
- ²³ George U. Caring and women of colour: living the intersecting oppressions of race, class, and gender. In Baines C, Evans P and Neysmith S (eds). *Women's Caring*, 2nd edn. Oxford: Oxford University Press; 1998: Ch. 4.