Reconstructive or cosmetic plastic surgery? Factors influencing the type of practice established by Canadian plastic surgeons

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BACKGROUND: Some argue that the specialty of plastic surgery is facing a changing identity. Challenged by factors such as increasing competition in the cosmetic marketplace and decreasing reimbursement for reconstructive procedures, many American plastic surgeons have increasingly adopted cosmetic-focused practices. The present study investigated the currently unknown practice profiles of Canadian plastic surgeons to determine the reconstructive-cosmetic mix, as well as factors that influence practice type to determine whether a similar pattern exists in Canada.

METHODS: An anonymous online survey regarding practice profiles was distributed to all 352 Canadian plastic surgeons with e-mail accounts registered with the Canadian Society of Plastic Surgeons and/or the Canadian Society for Aesthetic Plastic Surgery.

RESULTS: The survey response rate was 34% (120 responses), of which 75% of respondents currently had a reconstructive practice and 25% had a cosmetic practice. Reconstructive surgeons had more educational debt following their training, spent more time on emergency call, academics and teaching and, when deciding which type of practice to establish, were more influenced by academic opportunities and less influenced by financial and nonfinancial metrics. Similarities between the groups included hours worked per week and academic achievements.

CONCLUSIONS: The field of reconstructive plastic surgery appears to be thriving in Canada. While a transition from reconstructive to cosmetic practice is common, compared with their American colleagues, a greater proportion of Canadian plastic surgeons maintain reconstructive practices. Differences between reconstructive and cosmetic plastic surgeons are discussed.

Key Words: *Canada; Cosmetic surgery; Plastic surgery; Practice profile; Reconstructive surgery*

Unlike many areas in medicine, the field of plastic surgery offers surgeons the option of both an insured reconstructive and noninsured cosmetic practice. While the future of plastic surgery hinges on both systems of clinical practice, an optimal workforce balance has yet to be elucidated. In the United States, plastic surgery has been described as a specialty in transition; many plastic surgeons have decreased their presence in hospital-based reconstructive practices to spend more time in offsite private offices and surgical centres (1,2). Several hypotheses explaining these changes exist, including decreasing reimbursement for reconstructive procedures, rising malpractice and overhead costs, and increasing competition from other practitioners for both reconstructive and cosmetic procedures, among others (1,2).

The current supply and demand model for Canadian plastic surgery manpower is unclear. Published evidence suggests that Canada may encounter a future shortage of reconstructive plastic surgeons (3). We

La chirurgie reconstructive ou la chirurgie esthétique? Les facteurs influant sur le type de pratique mis sur pied par les chirurgiens plasticiens canadiens

HISTORIQUE : Certains prétendent que la spécialité de la chirurgie plastique subit un changement d'identité. Remis en question par des facteurs comme la concurrence croissante sur le marché de l'esthétique et le recul du remboursement des interventions reconstructives, de nombreux chirurgiens plasticiens américains se tournent vers une pratique de chirurgie esthétique. La présente étude portait sur le profil de pratique des chirurgiens plasticiens canadiens, jusqu'alors inconnu, afin de déterminer la combinaison entre la reconstruction et l'esthétique ainsi que les facteurs qui influent sur le type de pratique, de manière à d'établir si le Canada connaît une évolution similaire.

MÉTHODOLOGIE : Les auteurs ont distribué un sondage virtuel anonyme au sujet des profils de pratique aux 352 chirurgiens plasticiens canadiens détenteurs d'une adresse de courriel auprès de la Société canadienne des chirurgiens plasticiens ou de la Société canadienne de chirurgie plastique et esthétique.

RÉSULTATS : Le taux de réponse au sondage s'élevait à 34 % (120 réponses), dont 75 % avaient une pratique en reconstruction et 25 % en esthétique. Les chirurgiens reconstructeurs avaient une dette d'études plus élevée après leur formation, consacraient plus de temps aux appels d'urgence, aux tâches universitaires et à l'enseignement et, lorsqu'ils choisissaient leur type de pratique, étaient davantage influencés par les perspectives universitaires et moins par des calculs financiers et non financiers. Pour ce qui est des similarités entre les groupes, soulignons le nombre d'heures travaillées par semaine, les réalisations universitaires et le désir d'effectuer les interventions qu'ils préféraient.

CONCLUSIONS : Le domaine de la chirurgie reconstructive semble prospère au Canada. Le passage d'une pratique de reconstruction à une pratique esthétique est courant, mais par rapport à leurs collègues américains, une plus forte proportion de chirurgiens plasticiens canadiens maintient une pratique reconstructive. Les différences et les similarités entre les chirurgiens plasticiens reconstructeurs et esthétiques sont exposées.

hypothesize that, compared with surgeons in the United States, a greater proportion of Canadian plastic surgeons have predominantly reconstructive practices, although this has not been adequately evaluated or characterized in the medical literature. Properly evaluating these practice patterns is important for workforce analyses and surgical resource planning to ensure that the supply of reconstructive plastic surgeons in the public domain will meet the demand for clinical problems such as burns, oncological reconstruction, trauma and congenital anomalies.

Given the limited number of training positions for plastic surgeons in both Canada and the United States, residency programs face a difficult task when trying to recruit and select the best candidates among a large pool of applicants (4,5). If programs desire to select candidates who will establish a particular type of practice (ie, reconstructive or cosmetic), it would be advantageous to learn which personal attributes

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TABLE 1
Demographic and general information for Canadian plastic surgeons

	Overall, n (%)	Practice, n (%)		P
		Reconstructive	Cosmetic	
Sex				
Male	101 (86)	71 (82)	30 (100)	<0.01
Female	16 (14)	16 (18)	0 (0)	
Age, years				
30–39	24 (20)	20 (22)	4 (13)	NS
40–49	26 (22)	21 (24)	5 (17)	
50–59	50 (42)	36 (41)	14 (47)	
60–69	16 (13)	10 (11)	6 (20)	
≥70	3 (3)	2 (2)	1 (3)	
Years working				
0–9	33 (28)	28 (32)	5 (17)	AS (P=0.08)
10–19	39 (33)	31 (35)	8 (26)	
20–29	31 (26)	19 (22)	12 (40)	
≥30	15 (13)	10 (11)	5 (17)	
Practice location according to city population				
<100,000	9 (8)	9 (10)	0 (0)	<0.01
100,000–249,999	19 (16)	18 (21)	1 (3)	
250,000–499,999	19 (16)	15 (17)	4 (14)	
500,000–999,999	11 (9)	7 (8)	4 (14)	
≥1,000,000	59 (51)	39 (44)	20 (69)	
Marital status				
Single	11 (9)	10 (11)	1 (3)	NS
Common law/married	102 (86)	76 (86)	26 (87)	
Divorced	6 (5)	3 (3)	3 (10)	
Timing of marriage				
Before or during residency	75 (73)	52 (69)	23 (82)	<0.05
After residency	28 (27)	23 (31)	5 (18)	
Children				
Yes	104 (90)	77 (86)	27 (93)	NS
No	12 (10)	10 (14)	2 (7)	
Timing of children				
Before or during residency	53 (51)	34 (45)	19 (68)	<0.05
After residency	51 (49)	42 (55)	9 (32)	

AS Approaching statistical significance ($0.05 < P < 0.1$); NS Not statistically significant (ie, $P > 0.05$)

and characteristics are associated with those practices and what other factors influence this career decision. Reports from the United States have identified several factors that appear to be associated with different practice profiles among plastic surgeons, such as research experience, academic publications and marital status, among others (4,6,7). It is currently unknown which factors have the greatest impact among Canadian plastic surgeons. The aim of the present study was to describe the practice patterns of Canadian plastic surgeons and to determine the factors associated with individuals who establish reconstructive or cosmetic practices.

METHODS

An online survey was developed by a group of four plastic surgeons and a medical student, all who are affiliated with the University of British Columbia (Vancouver, British Columbia). The survey questions were not validated; several were developed based on previous American studies (4,6–8) while many were unique. Approval to conduct the present study was obtained by the University of British Columbia Clinical Research Ethics Board. All Canadian plastic surgeons with

Figure 1 Type of practice initially established by Canadian plastic surgeons in the first few years following the completion of training compared with current practice

valid e-mail addresses registered with either the Canadian Society of Plastic Surgeons (CSPS) and/or the Canadian Society for Aesthetic Plastic Surgery (CSAPS), were e-mailed an invitation to participate in the online survey. The survey invitation was sent out three times. A \$5 donation to a charitable organization was offered as an incentive.

Respondents were informed that for the purpose of the survey, cosmetic surgery was defined as any privately funded aesthetic procedure, while reconstructive surgery was defined as all other types of plastic surgery. A self-identified practice type, either fully/mainly reconstructive or fully/mainly cosmetic, was used for the statistical analysis, which compared results of reconstructive and cosmetic surgeons. Respondents were also asked to indicate the proportion of their practice that was spent on reconstructive procedures. Using a previously published definition (9), reconstructive surgeons were defined as those whose practice was at least 50% reconstructive based, and cosmetic surgeons were defined as those whose practice was less than 50% reconstructive based. Consistency between the two different definitions was evaluated using a one-way ANOVA that compared the self-identified reconstructive surgeons with those whose practice was at least 50% reconstructive based.

Variables were evaluated for all respondents, and a subgroup analysis comparing reconstructive and cosmetic surgeons, based on the self-identified classification, was performed using a χ^2 test with statistical significance established at $P < 0.05$.

RESULTS

Response rate

In 2010, there were 481 plastic surgery fellows registered with the Royal College of Physicians and Surgeons of Canada. Of those, 352 had valid e-mail accounts on file with either the CSPS and/or the CSAPS. A total of 120 surveys were completed, yielding a response rate of 34%.

Demographics and type of practice

The majority of respondents were male (86%), married (86%), had children (90%) and were working for at least 10 years (72%) (Table 1). The average age of the male respondents was 51 years, whereas female respondents were slightly younger, with an average age of 44 years. Additionally, male respondents had been in practice longer than female respondents, a mean of 18 and 12 years, respectively. Both male and female respondents initiated practice, on average, at 34 years of age. Most respondents worked in medium- to large-size cities, 92% worked in a city with a population of at least 100,000 and 51% worked in a city with at least 1,000,000 residents (Table 1).

Based on the self-identified classification, 98% of respondents started their careers in a reconstructive practice, while currently 75%

TABLE 2
Practice migration trends among Canadian plastic surgeons

Initial practice	Current practice			
	Fully cosmetic	Mainly cosmetic	Mainly reconstructive	Fully reconstructive
Fully cosmetic	0	0	0	0
Mainly cosmetic	1 ←	1 (2)	0	0
Mainly reconstructive	6 ← ←	17 ←	44 (73)	→ 6
Fully reconstructive	1 ← ← ←	4 ← ←	16 ←	23 (44)

Data presented as n. Values in parentheses represent the type of practice initially established by Canadian plastic surgeons in the first few years following the completion of their training. Values without parentheses indicate current type of practice. Red arrows demonstrate migration trends

Figure 2) Proportion of reconstructive-based procedures (as opposed to cosmetic based) performed by Canadian plastic surgeons

of respondents had a reconstructive practice and 25% had a cosmetic practice (Figure 1, Table 2). A comparison was made using a one-way ANOVA, and a strong correlation was found between the self-identified practice and percentage of time spent on reconstructive surgery ($P < 0.0001$). The results also showed that the majority of respondents (71%) had some form of mixed practice, and only a minority had an exclusively reconstructive or cosmetic practice (Figure 2). Examining the practice migration trends in more detail, of the 73 respondents who initially established a mainly reconstructive practice, 44 (60%) did not change their practice, six (8%) currently had a fully reconstructive practice and 23 (32%) had a fully or mainly cosmetic practice (Table 2). Similarly, of the 44 respondents who initially established a fully reconstructive practice, 23 (52%) did not change their practice, 16 (37%) currently had a mainly reconstructive practice and five (11%) had a fully or mainly cosmetic practice (Table 2).

In comparing reconstructive and cosmetic surgeons, all cosmetic surgeons were male, tended to have been in practice for longer than reconstructive surgeons, with no statistical difference in age between either group (Table 1). The majority of cosmetic surgeons practice in large Canadian cities, whereas a greater proportion of reconstructive surgeons work in medium- to small-size cities (Table 1). Marital status and the presence of children were similar among respondents of both types of practice; however, respondents who married or had children before or during residency were more likely to have a cosmetic practice (Table 1).

Education, research and training

Overall, 29% of respondents had either a Master's or doctorate (PhD) degree, and the majority did not have any research experience or academic publications before starting residency (Table 3). There were no statistical differences between reconstructive or cosmetic surgeons regarding these academic achievements.

The average educational debt of Canadian plastic surgeons following residency was \$25,700: \$28,500 among reconstructive surgeons and \$17,200 among cosmetic surgeons. Overall, 43% of respondents had no educational debt following the completion of their residency

TABLE 3
Research and training profiles of Canadian plastic surgeons

	Overall, n (%)	Practice, n (%)		P
		Reconstructive	Cosmetic	
Master's degree or PhD				
Yes	35 (29)	29 (33)	6 (20)	NS
No	84 (71)	60 (67)	24 (80)	
Research experience preresidency, months				
0	69 (58)	48 (54)	21 (70)	NS
1–11	29 (24)	23 (26)	6 (20)	
≥12	21 (18)	18 (20)	3 (10)	
Publications preresidency, n				
0	69 (59)	49 (56)	20 (67)	NS
≥1	48 (41)	38 (44)	10 (33)	
Educational debt following residency – all respondents, \$				
0	51 (43)	33 (37)	18 (60)	<0.05
<24,000	26 (22)	21 (24)	5 (17)	
24,000–49,000	17 (14)	13 (15)	4 (13)	
50,000–99,000	12 (10)	12 (13)	0 (0)	
≥100,000	13 (11)	10 (11)	3 (10)	
Educational debt following residency – recent graduates*, \$				
0	13 (40)	9 (32)	4 (80)	NS
<24,000	4 (12)	4 (14)	0 (0)	
24,000–49,000	2 (6)	2 (7)	0 (0)	
50,000–99,000	5 (15)	5 (18)	0 (0)	
≥100,000	9 (27)	8 (29)	1 (20)	
Fellowship training				
Yes	87 (73)	64 (72)	23 (77)	NS
No	32 (27)	25 (28)	7 (23)	
Type of fellowship				
Cosmetic	17 (20)	8 (13)	9 (39)	<0.05
Other	70 (80)	56 (87)	14 (61)	

*Recent graduates defined as surgeons who have been working for fewer than 10 years ($n=33$). NS Not significant ($P > 0.05$)

(37% of reconstructive surgeons and 60% of cosmetic surgeons [Table 3]). Of the 33 recent graduates, 85% had reconstructive practices and an average debt of \$45,900 following residency. The remaining 15% had cosmetic practices and a lower average debt (\$20,000) following residency.

Among respondents, 96% completed their residency training at a Canadian university and most (73%) obtained postresidency fellowship training, with microsurgery (42%) and hand surgery (29%) being the most common fellowships (Table 3, Figure 3). Having obtained fellowship training was not associated with having either a reconstructive or cosmetic practice, with the exception being that a greater proportion of cosmetic surgeons obtained cosmetic fellowship training (Table 3). Notably, of the 17 respondents who obtained cosmetic fellowship training, 13 (76%) also obtained fellowship training in other areas.

Figure 3) Fellowship training profile of Canadian plastic surgeons

General practice profile

Overall, respondents spent 79% of their practice time in clinical care, 15% of their time teaching, 12% on academic pursuits and 10% on administrative tasks (note that categories are not mutually exclusive) (Table 4). Comparing reconstructive and cosmetic plastic surgeons, there was no statistical difference in the proportion of their time spent working clinically or on administrative tasks; however, reconstructive surgeons spent relatively more time teaching and on academic endeavours.

Most respondents (74%) attended meetings for zero to two weeks per year; reconstructive surgeons spent less time at meetings than cosmetic surgeons (Table 4). Overall, 69% of respondents had a university appointment and, of those, 83% obtained fellowship training. Conversely, among respondents without university appointments, fewer (49%) had obtained fellowship training ($P < 0.0005$). The majority (84%) of respondents worked with residents, fellows and medical students. Having a university appointment or working with trainees was not associated with practice type.

The majority of respondents (62%) worked more than 50 h per week, and few respondents (8%) worked part-time (Table 4). The majority of respondents (59%) took five or more weeks of vacation per year and, overall, 35% of respondents had been on at least one volunteer mission related to reconstructive plastic surgery, with participation being more common among reconstructive surgeons (Table 4). No statistical difference was noted between reconstructive and cosmetic surgeons in terms of hours worked per week or vacation time per year. The majority of respondents with reconstructive practices were on emergency room call five to seven times per month (Table 4). Respondents with cosmetic practices took less call, with the majority not ever on call.

DISCUSSION

Demographics and general findings

Our study demonstrated that the majority of Canadian plastic surgeons have reconstructive-based practices and that there are numerous differences in the demographics of reconstructive and cosmetic plastic surgeons. Because plastic surgeons often transition from a reconstructive to cosmetic practice (Figure 1), it was not surprising that cosmetic surgeons had been in practice longer. Most Canadian plastic surgeons are married with children and, unlike the results from studies of American plastic surgeons (4,6), neither was associated with having a reconstructive or cosmetic practice.

Research, education and debt

Because the practice of a reconstructive surgeon is often more integrated with teaching and academia (Table 4), it is logical to expect that signs of personal interest in academic areas may be more prevalent in residency applicants who will have future reconstructive practices. While our results showed that research-based degrees (Master's or PhD), research experience and/or publications before residency were slightly more prevalent among reconstructive plastic surgeons, unlike findings among American plastic surgeons (4,6), our results did not

TABLE 4

General practice profile of Canadian plastic surgeons

	Overall, n (%)	Practice, n (%)		P
		Reconstructive	Cosmetic	
Meetings per year, weeks				
0–2	87 (74)	70 (80)	17 (57)	<0.05
≥3	31 (26)	18 (20)	13 (43)	
University appointment				
Yes	82 (69)	64 (73)	18 (60)	NS
No	36 (31)	24 (27)	12 (40)	
Work with residents				
Yes	99 (84)	77 (87)	22 (76)	NS
No	19 (16)	12 (13)	7 (24)	
Hours worked per week				
<40	9 (8)	7 (8)	2 (7)	NS
40–49	35 (30)	25 (28)	10 (33)	
50–59	29 (24)	23 (26)	6 (20)	
≥60	45 (38)	33 (38)	12 (40)	
Emergency call(s) per month, days				
0	14 (12)	4 (4)	10 (33)	<0.001
1–4	12 (10)	5 (6)	7 (23)	
5–7	55 (46)	47 (53)	8 (27)	
8–13	30 (25)	26 (29)	4 (13)	
≥14	8 (7)	7 (8)	1 (3)	
Vacation time per year, weeks				
1–4	47 (41)	35 (40)	12 (41)	NS
5–6	48 (41)	35 (40)	13 (45)	
≥7	21 (18)	17 (20)	4 (14)	
Volunteer reconstructive missions, n				
0	77 (65)	54 (61)	23 (77)	AS ($P = 0.08$)
≥1	41 (35)	34 (39)	7 (23)	
Practice characteristics, %				
Clinical	79	78	83	NS
Teaching	15	16	10	<0.05
Academic	12	14	5	<0.01
Administrative	10	10	10	NS

AS Approaching statistical significance (ie, $0.05 < P < 0.1$); NS Not statistically significant (ie, $P > 0.05$)

reach statistical significance. This suggests that academic- and research-based achievements might not be predictive of whether Canadian residency applicants will have reconstructive- or cosmetic-based careers. The specific areas of fellowship training found among respondents were similar to those of recent plastic surgery graduates (10). Our results suggest that Canadian plastic surgeons with greater educational debt following residency are more likely to enter a reconstructive practice (Table 3). Reconstructive plastic surgery may be viewed as a more secure option given the compensation models in Canada.

Evolution of practice profiles

The fact that some plastic surgeons transition from a reconstructive practice to a cosmetic practice later in their career is well known (11) and our results reflected this trend (Figure 1, Table 2). It is also clear that this is not an abrupt, all-or-nothing decision because only 29% of respondents had an exclusively reconstructive (22%) or cosmetic (7%) practice, and 71% of respondents had a mixed practice (Figure 2). There are common beliefs regarding the advantages and disadvantages of either type of practice. For example, the career of a reconstructive surgeon is believed to hold greater opportunities to train residents and undertake research, and is associated with the prestige of a university affiliation (4). Conversely, it is often believed that a cosmetic practice

offers the clinician a greater financial reward and a more flexible lifestyle because they are able to operate autonomously and are often insulated from hospital bureaucracy (6).

While our results support some of these beliefs, for instance, reconstructive surgeons take more emergency call, participate in more reconstructive volunteer missions and spend more time teaching and on academic endeavors (Table 4), not all of these beliefs were supported by the results. For example, there was no statistical difference in the number of hours worked per week, vacation time taken per year, proportion of surgeons who have university appointments or who work with residents (although reconstructive surgeons spend more time teaching) (Table 4). Finally, considering that almost all cosmetic surgeons had initially established reconstructive careers (Figure 1, Table 2), the results also suggest that factors that influence surgeons may change over the course of their careers. Alternatively, it is possible that cosmetic surgeons believe it is prudent to start out in a reconstructive practice and slowly progress to a more cosmetic practice over time, thereby enabling them to bypass the risks associated with establishing a cosmetic practice at an early stage of their careers.

Differences in practice profiles of Canadian and American plastic surgeons

In the United States, reconstructive plastic surgery is undergoing a transition amid decreasing reimbursement from insurance providers, rising malpractice and overhead costs, a reduction in the number of residency training programs and increasing competition from nonplastic surgeons (1,12-14). In the recent past, American plastic surgery training program positions were reduced substantially, the result of which has been fewer plastic surgeons in both reconstructive and cosmetic practices, and greater expansion of other specialists into a domain that was traditionally occupied by plastic surgeons (1). Furthermore, plastic surgery divisions at many American universities have been eliminated or significantly downsized by a small reconstructive workforce as well as off-site offices removed from the hospital setting, resulting in a decreased presence of plastic surgeons at medical centres and an expanded scope of practice among other surgical specialists (1).

While the identity and demographic of American reconstructive plastic surgeons may be changing, in Canada, where plastic surgeons face different medical, legal and economic climates, our results suggest reconstructive plastic surgery is thriving. Our study showed that 75% of Canadian plastic surgeons had reconstructive practices compared with 50% among American plastic surgeons (11). Various factors can be speculated to explain the difference. First, reconstructive plastic surgery may be more financially viable in Canada. For instance, over time, the government-funded health care model in Canada has maintained and/or increased reimbursement for insured services provided by most Canadian physicians, meaning, unlike American plastic surgeons, Canadian plastic surgeons have not been subjected to consistently decreasing reimbursement for reconstructive procedures. Canadian plastic surgeons also generally incur lower overhead and malpractice insurance costs. Additionally, American reconstructive plastic surgery divisions generate less income for hospitals compared with other surgical specialties (15), are less visible because their members are spending increasing amounts of time at private facilities and are potentially viewed as providing a noncritical medical service (2). Therefore, from a hospital management point of view, American plastic surgery divisions are often lower on the priority list (1).

Second, the workforce is less saturated with providers in Canada compared with the United States. Counting only diplomats of the American Board of Plastic Surgery and, therefore, excluding unregistered plastic surgeons and those who are certified via the Doctor of Osteopathic Medicine pathway, in 2009, there was approximately one plastic surgeon for every 39,466 Americans (16,17). There is also a large number of nonplastic surgeon cosmetic providers adding competition to the cosmetic field. For example, it has been estimated that fewer than 30% of cosmetic practitioners in Los Angeles and San Diego (California, USA) are plastic surgeons (18). In Canada,

TABLE 5

Apparent differences between Canadian and American plastic surgeons

Canadian	American
Fewer plastic surgeons per capita	More plastic surgeons per capita
75% reconstructive: 25% cosmetic	50% reconstructive: 50% cosmetic
Less time spent clinically	More time spent clinically
More time teaching	Less time teaching
More time on academics/research	Less time on academics/research
More time on administration	Less time on administration
Less debt following completion of training	More debt following completion of training

there was approximately one plastic surgeon for every 70,726 Canadians in 2010 (19,20). These numbers suggest that Canadian plastic surgeons may have an easier time balancing a mixed practice compared with American plastic surgeons who, through working in a highly competitive market with decreasing reimbursement for reconstructive procedures, feel compelled to focus their efforts in the cosmetic arena. Additionally, some American plastic surgeons may be unable to obtain sufficient reconstructive operating room time, patient referrals or are unable to be placed on a call schedule.

Finally, compared with American plastic surgeons, Canadian plastic surgeons spend less time working clinically and more time on academic pursuits, teaching and administration (9) (Table 4). This may be due to the fact that compensation in the United States is increasingly based on relative value units, while in Canada, such metrics are yet to be adopted. In fact, increasingly, there has been a transition away from a fee-for-service model and toward a service contract compensation model.

Study limitations

While the present study suggests there are differences in the prevalence of certain factors among reconstructive and cosmetic plastic surgeons, the survey was not tested for validity. The present study was designed to be descriptive and hypothesis generating and, therefore, some of the conclusions made based on the data are preliminary and should be followed by future research with validated questions, if possible. While the present study suggests that Canadian plastic surgeons are currently more engaged in reconstructive plastic surgery than their American colleagues, because this was a cross-sectional survey, these data are only evaluating a moment in time. A response rate of 34%, while low enough to potentially miss a significantly different subgroup of respondents, is consistent with recent survey-based studies among Canadian plastic surgeons (21). Finally, our survey may have a selection bias toward reconstructive plastic surgeons because our results suggested they spend more time on academic matters, which would likely include survey participation.

CONCLUSIONS

1. The field of reconstructive plastic surgery in Canada appears to be maintaining a strong reconstructive focus. While some plastic surgeons believe the specialty of reconstructive surgery is at risk of losing its identity in the United States, at the moment, this does not appear to be the case in Canada.
2. The vast majority of Canadian plastic surgeons initially establish a reconstructive practice and a proportion transition to a cosmetic practice later in their career.
3. A summary of the apparent differences between Canadian and American plastic surgeons is presented in Table 5.
4. A summary of the apparent differences between Canadian reconstructive and cosmetic plastic surgeons is presented in Table 6.

TABLE 6
Apparent differences (ie, $P < 0.05$) between Canadian reconstructive and cosmetic plastic surgeons

Reconstructive	Cosmetic
Male and female	Male
Marry later	Marry earlier
Children later	Children earlier
More educational debt	Less educational debt
Fewer cosmetic fellowships	More cosmetic fellowships
Practice in small and large cities	Practice in large cities
Have been practicing for fewer years*	Have been practicing longer
More reconstructive volunteer missions*	Fewer reconstructive volunteer missions
More academic focused practice	Less academic focused practice
More time spent teaching	Less time spent teaching
Less time at meetings	More time at meetings
More time on emergency room call	Less time on emergency room call

* $P = 0.08$

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