## Female Genital Cosmetic Surgery: A Critical Review of Current Knowledge and Contemporary Debates

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### Abstract

Female genital cosmetic surgery procedures have gained popularity in the West in recent years. Marketing by surgeons promotes the surgeries, but professional organizations have started to question the promotion and practice of these procedures. Despite some surgeon claims of drastic transformations of psychological, emotional, and sexual life associated with the surgery, little reliable evidence of such effects exists. This article achieves two objectives. First, reviewing the published academic work on the topic, it identifies the current state of knowledge around female genital cosmetic procedures, as well as limitations in our knowledge. Second, examining a body of critical scholarship that raises sociological and psychological concerns not typically addressed in medical literature, it summarizes broader issues and debates. Overall, the article demonstrates a paucity of scientific knowledge and highlights a pressing need to consider the broader ramifications of surgical practices.

"Today we have a whole society held in thrall to the drastic plastic of labial rejuvenation."<sup>1</sup> "At the present time, the field of female cosmetic genital surgery is like the old Wild, Wild West: wide open and unregulated"<sup>2</sup>

N THE DECADE OR SO SINCE the first Western media reports of L the "designer vagina," there has been extensive and often overwhelmingly positive<sup>3</sup> media coverage about this cluster of genital procedures, which are better termed "female genital cosmetic surgery" (FGCS) or "vulvovaginal esthetic surgery."<sup>2</sup> FGCS covers a range of procedures that aim to change aesthetic (or functional) aspects of women's genitalia but that are not medically indicated.<sup>4</sup> It includes labia minora reductions, vaginal tightening ("rejuvenation"), labia majora "augmentations", pubic liposuction (mons pubis, labia majora), clitoral hood reductions, hymen "reconstruction", perineum "rejuvenation", and "G-spot amplification". A confusing array of terms associated with even the same procedure has led to calls for standardized nomenclature in this area, which eschews terms that are proprietary<sup>2,5</sup> and strongly linked to commercialized medicine, such as "laser vaginal rejuvenation". It excludes genital surgery for intersex or trans people, traditional female genital cuttings, or repair of obvious anomalies. Procedures are performed mainly by gynecologists/ obstetricians and plastic surgeons,<sup>6</sup> as well as some urologists and various others (depending on local regulations related to who can perform surgery).

We are frequently told this surgery is increasing rapidly in the West, and the number of surgeons promoting these procedures—and setting up specialist clinics—certainly appears to have increased substantially. Within the last few years, however, two professional bodies, the American College of Obstetricians and Gynecologists (ACOG) and the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG), have issued public position statements against FGCS,<sup>4,7</sup> and less formal but nonetheless insider/professional critiques have appeared in both the U.K.<sup>8,9</sup> and Germany.<sup>10</sup> (The literature around FGCS expands beyond the English language,<sup>10–18</sup> but my focus is on the English-language publications.)

The idea of surgery to "improve" women's genitalia is far from new, although a focus (just) on aesthetics is. From "husband stitches" and Dr. James Burt's "love surgery" through to "revirginations" and clitoridectomies,<sup>19–23</sup> women's genitalia have long been seen as a surgically alterable part of the female body. Such surgeries were intended to resolve "problems" of a sexual or psychological nature. With some, the woman's or girl's consent was not always deemed necessary; sometimes she was not even informed. Given this context, FGCS has been framed as "the latest chapter in the surgical victimization of women in our culture."<sup>24,25</sup> The alternative account, promoted by some surgeons and media, is that, finally, women's genitalia and sexual problems are getting the attention they deserve.

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Following a call to debate FGCS now, even though it might appear to be "on the fringes of obstetrics and gynecology"<sup>26</sup> and cosmetic surgery, this article examines the tensions between these different accounts. My first aim is to summarize and evaluate what we currently know about FGCS, as performed in Western countries, and what we do not. My second aim is to raise a series of concerns/critiques in relation to the procedures in order to stimulate further debate. Although labia reduction has been reviewed recently,<sup>6,27</sup> I engage more critically with FGCS and the issues it raises and integrate literature from biomedical and social science/humanities scholarship. I argue that the scope of the debate needs to go beyond medical practice, beyond a narrow view of ethics and choice, to consider a range of psychological and societal factors affecting women. The emergence of these procedures as material practice and, particularly, their entrance into public discourse raise significant concerns for women's sexual and reproductive health and well-being.

#### The Emergence of FGCS

Stemming from the work of J. Marion Sims in the mid-1800s to repair vaginal fistulas<sup>19</sup> and subsequent ongoing surgical repair of vaginal vault/uterine prolapse, vaginal tightening procedures emerge from a long (Western) history of gynecological repair. They also link into a wider long-standing crosscultural valuing of the "tight" vagina.<sup>28</sup> In contrast to that long history, the idea of surgical labial alteration appears relatively new. The first report of cosmetic labiaplasty procedures appeared in 1984.<sup>29</sup> In the late 1990s and early 2000s, with the appearance of more clinical reports<sup>30-35</sup> and considerable media coverage in the glossy women's magazines (driven in part by high-profile surgeons with websites and public relations agents), "the designer vagina" entered public discourse. Since then, various clinical case studies and commentaries have reported on or promoted different techniques for labial reduction<sup>31,36–41</sup>; some reports have been specifically oriented to functional repair<sup>42,43</sup> or to specific populations, such as youth<sup>44,45</sup> or patients with certain illnesses.<sup>45,46</sup> The method of simple amputation of labial tissue, identified as the traditional approach,<sup>37,41</sup> is still common<sup>47</sup> but is frequently condemned by other surgeons, for both aesthetic and functional reasons.31,37,38,41,47,48 The pros and cons of different techniques of labial reduction are not considered here but are reviewed elsewhere.27,48

### The Evidence of FGCS

There are few comprehensive or reliable data with regard to frequency or outcome of FGCS. Labiaplasty appears to be the most popular procedure, based on media and surgeon<sup>37</sup> claims, surgeon advertising, and published surgeon reports.<sup>40,47</sup> Surgeons tend to claim an increase in numbers seeking labiaplasty,<sup>15,38,47,49,50</sup> and the limited data do suggest a general increase in popularity across this decade. Labiaplasty operations performed on the National Health Service in the U.K. almost trebled across a decade: from under 400 in 1998–1999 to nearly 1200 in 2007–2008<sup>51,52</sup>; U.S. data from the American Society of Plastic Surgeons (ASPS) indicated a 30% increase in "vaginal rejuvenation" between 2005 and 2006 (from 793 to 1030).<sup>53</sup> The ASPS has not collected FGCS data since then, but the American Society for Aesthetic Plastic Surgery (ASAPS) reported on "vaginal rejuvenation" for 2007–

2008. This time, although the number of surgeries was considerably higher in absolute terms, a 22% decline was reported: from 4506 to 3494 procedures.<sup>54</sup> A decline was not specific to FGCS, however; cosmetic procedures overall were down 15% in 2008, a downturn attributed to the economic environment. In Australia, media reports claim more than 1200 labiaplasty procedures each year.<sup>50</sup>

There are problems with such statistics. First, they are likely to underestimate prevalence. The U.S. data are limited by who collects them and who reports, with a focus on plastic surgeons (rather than gynecologists, for instance); the U.K. data are limited to those performed free on the National Health Service (thus requiring a functional assessment) and exclude those performed privately, with possibly less functional intent. Second, the U.S. reporting of "vaginal rejuvenation" is problematic. It is not clear exactly what procedure is being referred to, as it is not a technical procedural term. Instead, such (trademarked) nomenclature comes from the highly FGCS-promoting surgeon Dr. Matlock.<sup>55</sup> The uptake of the term by ASAPS and ASPS reflects an uncritical adoption of surgeon marketing and the commercialization of medicine.

Similarly, there are few reported data on which women are having the procedures, except in relation to age. Cosmetic labiaplasty patient age ranges from early teens (requests as young as 10) through to the 50s or 60s, with the 20s and 30s predominating.<sup>29–31,33–35,37,40,56</sup> Vaginal tightening appears to be performed on older (postpartum) women: one report of 53 cases lists the mean age as 46 compared with a report of 55 labiaplasty cases from the same clinic, where the median age was in the 30s.<sup>57,58</sup>

Data demonstrating the success (and risks) of FGCS are also limited. Clinical case reports tend to report successful surgeries or techniques. For labial reduction, patient satisfaction is reportedly very high, and complication rates are low.<sup>27</sup> In the limited number of articles reporting on more than 10 cases, reported patient satisfaction typically ranges from 90% to 100% (Table 1). Surgeons also claim more anecdotally that "patient satisfaction has been very high, with complications rates remaining very low."<sup>40,47,59</sup> Reports of complication rates tend to be <5%,<sup>27</sup> and the most common complication appears to be wound/suture dehiscence, followed by pain.

The measures reported appear very positive, but do they constitute evidence of high-quality, high-satisfaction, and low-risk outcomes? Unfortunately, they do not<sup>2,6,9</sup>: the evidence reported is problematic in terms of time frames of follow-up and measures used (Table 1), providing "scanty details as to ascertainment or evaluation" of cosmetic (and other) outcomes.<sup>6</sup> For instance, of 407 surgeries, Alter<sup>37</sup> reported an in-person follow-up at 2 weeks with only 30% of patients (attributed to the fact that many came from places other than where his surgery was) and via a written questionnaire with just 41%. There was no consideration that those not responding might report a markedly different experience from those who did respond; evidence suggests they do.<sup>60</sup> The measures used by different surgeons are typically not scientifically validated and are not comparable.9,27,61,62 This critique of patient report outcome measures for FGCS is in line with those for other plastic surgeries.<sup>63,64</sup>

Psychometrically robust psychological measurement is needed for FGCS, with long-term follow-up, alongside appropriate clinical outcome studies that assess both sexual and

		ss: al al wal %) (%) 3 (1.8%) n 1 (%) n n n n n (%) (%) (%)	ome d: 50 ed: come: d:	(96%) ; ; sponse	ome: satisfied; !%) no	(continued)
S	Outcome	Significant complications: 18/407 (4.4% <sup>b</sup> ) Increased sexual sensation: 38/166 (22.9%) Decreased sexual change: 9/166 (5.4%) Less disconfort: 148/166 (89.2%) More chronic discomfort: 3 (1.8%) Any increase in self-esteem: 155/166 (93.4%) Any improvement in sex life: 118/166 (71%) Would do again: 163.082.9%)	Aesthetic outcome Very satisfied: 50 (91%) Satisfied: 5 (9%) Functional outcome: Very satisfied: Ef (100%)	Overall: 94/98 (96%) satisfied; 3(3%) not satisfied; 1 (1%) no response	Aesthetic outcome: 87/98 (89%) satisfied; 10 (10%) not satisfied; 1 (1%) no response	<i>o</i> )
at Least 10 Case	Мhen	At least 4 months postoperative	60 days postoperative	6–109 months postoperative (med = 30)		
COMES REPORTING	Other follow-up <sup>a</sup>	166/407 (41%) (mailed questionnaire)	100% (questionnaire)	98/163 (60%; 73% of the 134 contactable) (mailed questionnaire)	F	
Table 1. Summary of Labiaplasty/Female Genital Cosmetic Surgery Reduction Outcomes Reporting at Least 10 Cases	Outcome	Further surgery required: 12/407 (2.9% <sup>b</sup> )	Minimal wound dehiscence: 3 (5.4%) Mild-moderate pain, 5-7 days:	A "satisfactory" anatomic result: 151 (93%)	Further surgery required (wound dehiscence): 11 (7%)	
le Cosmettic Surg	Млеп	2 weeks	7 days; 35-40 days postoperative	1 month postoperative		
y/Female Genita	Physical follow-up	123 (30%)	100%	162 (99.4%)		
ary of Labiaplast		13–63 (mean = 32)	10-55 (med = $31-40$ )	12–67 (med = 26)		
le 1. Summa	Time frame Patient age	2005 and 2006	10/2003- 11/2004	4/1989– 2/1998		
TAB!	No. of cases	407	55	163		
	Study	Alter, 2008 <sup>37</sup> USA	Pardo et al., 2006 <sup>57</sup> Chile	Rouzier et al., 2000 <sup>30c</sup>	France	

					TABLE 1.	Table 1. (Continued)			
Study	No. of cases		Time frame Patient age	Physical follow-up	When	Outcome	Other follow-up <sup>a</sup>	Мhen	Outcome
									Functional outcome: 91/98 (93%) satisfied; 3(3%) not satisfied; 4(4%) no response Preoperative disconfort relieved: 96% (77/80 patients reporting this) Postoperative pain: 64% (1-60 days; med = 7) Postoperative disconfort: 45% Entry dyspareunia: 23% (3-90 days; med = 28) 4 patients (4%)
Maas and Hage, <sup>31d</sup> 2000	13	10/1992 - 03/1999	19-42 (ave=30)	100%	Unclear	No problems: 11/13 (85%)	Unclear	Unclear	Proceeding again Overall "pleased with appearance of their genitalia":
Holland						Hematoma: 1			100% Resolution of functional
						Wound dehiscence: 1			problems: 100% No discomfort with intercourse: 100% (previously reported in 8/13)
						"Minimal postoperative discomfort": 100% No pain 2 weeks postoperative: 100%			-
Giraldo et al., 2004 <sup>39</sup>	15	04/1996-10/2002	22–45 (Mean = 34)	100%	Unclear	Uneventful healing: 13/15 (87%)	100% (unclear how, no scientific scale)	6–80 months postoperative (mean = 30)	"All fully satisfied with the appearance of the external genitalia"

TABLE 1. (CONTINUED)

(31-49) 100%	05/1998- 38 (31-49) 12/2004

surgery, and overall either 18/166 (10.8%) or 18/(166 + 123) (6.2%) suffered "significant complications." (It is not clear how much overlap there was between the questionnaire mailed to all patients and the physical examination samples, making assessment difficult.)

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the physical examination samples, making assessment difficult.) <sup>N</sup>Note that in Rouzier et al.'s study, patients were operated on only if their labia minora measured  $\geq 4$  cm, as this was the size deemed necessary for a functional problem and for there to be enough tissue to produce a satisfactory aesthetic outcome. Rouzier et al. present variable satisfaction rates, making it difficult to assess the study fully. In their table, they report overall satisfaction at 94%. Elsewhere, they report 83% overall satisfaction, but it is unclear if this figure relates only to the proportion of patients who experienced some complication (e.g., entry dyspareunia postsurgery). <sup>d</sup>Outcome details in this report are vague and minimal, making it hard to assess.

psychosocial outcomes<sup>9,27,51</sup>; ideally, assessment should not be conducted by those with fiscal interest in the outcome.<sup>65</sup> Further, findings from one retrospective qualitative study of 6 women's experiences of labial reduction<sup>61</sup> highlight some ambivalence in women's reported satisfaction after the surgery,<sup>51</sup> suggesting that larger-scale qualitative research would fruitfully generate a fuller understanding of experiences of women who have had FGCS. Perhaps more importantly, as Liao et al.<sup>6</sup> comment, "consumer satisfaction should not be confused with clinical effectiveness."

Certain techniques for labiaplasty (excisions) have been noted to provide "inadequate cosmetic and functional results"66; some commentaries question reported successful outcomes of a published case<sup>43,48,67</sup>; and surgeons presenting a particular technique sometimes outline the limitations, problems, or risks of other techniques.<sup>37</sup> There are no published studies, however, that directly report the failure of a technique of labial reduction or other FGCS procedures (although de Alencar Felicio<sup>40</sup> recommends that labiaplasty and perineum surgery should not be combined because of adverse outcomes for the patient). However, surgery does go wrong. Online accounts of "labiaplasty nightmares" are easily found,<sup>68</sup> and surgeons report that they see and attempt to fix other surgeons' botched procedures.<sup>37,50</sup> One California labiaplasty surgeon even advertises specifically for "labiaplasty revision" and notes that the number of women needing labiaplasty "repairs" has "dramatically increased" in recent years.<sup>69</sup> Taken as evidence that these procedures can, and do, go wrong, with often devastating effects for the patient, it serves to remind us that "every medical intervention has a complication and failure rate."<sup>70</sup> Such stories are a sobering counterpoint to glorified advertising claims and media coverage.

These surgeries have been framed by some surgeons in advertising and websites and in much media coverage as resulting in a psychological and sexual transformation of the woman, whose prior poor sex life and low self-esteem have been restored through the surgery.<sup>3</sup> For instance, one group of surgeons in a letter in *Plastic and Reconstructive Surgery* claimed that:

Every one of our patients has been delighted with the results. Among them was a bathing suit model who came to us very embarrassed about this problem. She had never had a serious relationship before the procedure. Shortly thereafter, she sent us the announcement of her wedding to a professional golfer.<sup>59</sup>

Although changes are indeed possible, there is no evidence to support the frequently made claim that sexual and psychological changes will (or should) occur.<sup>9</sup> Vaginal anatomy and sexual function are not necessarily associated,<sup>71</sup> calling into question the rationale behind vaginal tightening procedures. Surgery for various vaginal problems shows no clear relationship among surgery, vaginal size, and sexual (dys)function.<sup>72–74</sup> Genital surgery on intersex people can affect both sensation and sex,<sup>75,76</sup> and surgeries for vulval cancer have also been found to negatively affect sexual function.<sup>27</sup> Furthermore, it is not yet understood exactly how labia minora engorgement during sexual arousal may be involved in sexual pleasure and how labial removal might affect this.<sup>27</sup> That is quite apart from the possibility of damage to nerves or normal blood vessel supply through surgery.<sup>6,9,27,62</sup> Because there are many highly sensitive nerve fibers contained within the labia minora, which are linked to sexual arousability, "incision to any part of the genitalia could compromise sensitivity—an important aspect of sexual experience."<sup>51</sup>

The response of some professional bodies has been to advocate against FGCS. In September 2007, an ACOG committee published an opinion paper on FGCS,<sup>4</sup> which concluded that:

[These] procedures, including vaginal rejuvenation, designer vaginoplasty, revirgination, and G-spot amplification, are not medically indicated, and the safety and effectiveness of these procedures have not been documented. No adequate studies have been published assessing the long-term satisfaction, safety, and complication rates for these procedures.<sup>4</sup>

Other gynecologists/professional bodies have concurred.<sup>7,77</sup> Less officially, a spokesman for the ASPS was quoted in the Chicago Sun Times as suggesting the need for caution, and advising that "I would think long and hard about undergoing one of these procedures."78 Some gynecologists are raising their voices publicly and professionally against current processes, practices, and knowledge, 8,9,50 with Renganathan et al. concluding that "the available evidence is still insufficient to counsel the patients regarding the advantages and complications of cosmetic genital surgery."9 More detailed (and longitudinal) assessment of risk needs to be done, including in areas currently not reported on, such as obstetrical complications.<sup>6</sup> Goodman argues that "because genital plastic surgery involves concepts and procedures that are not yet fully researched nor understood, stringent guidelines for training, anesthesia, surgical technique, and postoperative monitoring, among others, should be established."2 Some guidelines are starting to be developed in Holland.<sup>77</sup> However, despite such critique and the contrast between advertising and media claims,<sup>3,79</sup> no regulation has yet occurred.

## The Rationale for FGCS

Women reportedly seek FGCS for aesthetic and/or func-tional concerns.<sup>6,30,37,56</sup> Some claim aesthetic concerns predominate,<sup>38,39</sup> whereas others highlight functional reasons<sup>47</sup> (Table 2). Aesthetic concerns appear primarily linked to a dislike of some very specific aspect of vulval appearance, particularly the visibility of labia minora, or their shape, color, or asymmetry. Reported functional concerns relate to vaginal "laxity" during intercourse or discomfort/irritation from the labia when exercising, wearing tight clothing, or during intercourse.<sup>2,9</sup> Psychological concerns (e.g., sexual or social embarrassment) are also noted as a reason women seek surgery.<sup>38,49</sup> Likes et al.<sup>27</sup> characterized such "symptoms" as vague, pointing out that the origin of these is not always fully investigated. Similarly, in their review of labial reduction, Liao et al. noted that "surgery appeared to have been offered on demand, justified by verbal reports of physical and psychological difficulties that were not formally evaluated, preor post-surgery."6

Although a focus on function or aesthetics divides the field of plastic surgery into reconstructive and aesthetic, in reality, the separation is impossible to sustain.<sup>62</sup> Even aesthetic FGCS procedures are often talked about in functional terms, and function is invoked through claims of postsurgical psychological transformation.<sup>3</sup> Qualitative research allows a bit more

Study	No. of cases	Aesthetics <sup>a</sup>	Medical/functional	Psychological <sup>a</sup>
Alter, 2008 <sup>37</sup>	407	402 (98.8%) any aesthetic 54 (13.3%) only aesthetic 348 (85.5%) aesthetic and discomfort	353 (86.7%) any discomfort 5 (1.2%) only medical 348 (85.5%) discomfort and aesthetic	
Rouzier et al., 2000 <sup>30</sup>	163	(87%) any aesthetic	64%: discomfort in clothing 26%: discomfort exercising 43%: entry dyspareunia	
Miklos and Moore, 2008 <sup>56</sup>	131	89 (68%) any aesthetic 49 (37%) only aesthetics 40 (31%) aesthetics and functional	<ul> <li>82 (63%) any functional</li> <li>42 (32%) only functional</li> <li>40 (31%) functional and aesthetics</li> <li>49/82 (60%) painful/ uncomfortable intercourse</li> <li>45/82 (55%) discomfort wearing clothing</li> <li>38/82 (46%) discomfort during exercise or activity</li> </ul>	
Pardo et al., 2006 <sup>57</sup> Munhoz et al., 2006 <sup>41</sup>	55 21	53 (96%) any aesthetic 21 (100%) aesthetic complaints	<ul> <li>32 (58%) any functional</li> <li>13 (62%) interference with intercourse</li> <li>10 (48%) poor hygiene</li> <li>7 (33%) difficulty wearing tight-fitting pants</li> </ul>	13 (24%) any psychological
Maas and Hage, 2000 <sup>31</sup>	13	<ul><li>"Most dissatisfied with the appearance of their labia"</li><li>9/13 (69%): self-esteem/ aesthetic concerns</li></ul>	13 (100%) functional problems: 8 (61%) cycling 8 (61%) discomfort with intercourse 4 (31%) walking	
		aesthetic concerns	3 (23%) sitting 2 (15%) personal hygiene	
Jothilakshmi et al., 2009 <sup>44</sup>	6, aged 11–16	1/6 (17%): labia too prominent under swimwear	<ul><li>3/6 (50%)</li><li>2, labia caught in underwear</li><li>1, vulval irritation</li></ul>	<ul><li>2/6 (33%)</li><li>1, worried about being teased about long labia</li><li>1, embarrassment caused by long labia</li></ul>

TABLE 2: REPORTED REASONS FOR SEEKING LABIAPLASTY

<sup>a</sup>Psychological reasons (such as embarrassment or self-esteem) were often either not explicitly assessed or appeared to be subsumed under aesthetic, i.e., nonfunctional, reasons.

understanding of the complexity of these motivations, which are not necessarily unambiguous or simple or discrete.<sup>61</sup> Women's accounts that they sought labiaplasty because of perceptions of abnormality and the impact of their labial appearance (or their perception thereof) on their sex lives<sup>61</sup> fit both media coverage and surgical accounts.<sup>3,79</sup> The range of reasons is also reflected in advertising, which claims both aesthetic improvements and (functional) increases in sexual pleasure and psychological well-being.<sup>3,79</sup>

What *is* certain is that many women seek surgery to address psychological concerns. For instance, Giraldo et al.<sup>39</sup> claimed that:

Psychological concerns are the most important reason for women to have the size of their labia minora reduced. Protuberance of these genital structures beyond the labia majora is often considered to be aesthetically and socially inconvenient....Even after she has been assured that it is simply congenital and that enlargement of the labia minora normally has no clinical significance, many women remain dissatisfied and suffer psychological distress....[Jokes about labia minora] can logically result in lack of self-confidence, loss of selfesteem, feelings of belittlement, and diminished libido, with the consequent psychological repercussions.<sup>39</sup>

Psychology provides a moral justification<sup>80</sup> for cosmetic surgery, rendering it acceptable. Through reference to psychology, even aesthetic procedures can be reframed as about functionality<sup>3</sup> and as a legitimate way to move beyond bodily distress.<sup>81,82</sup> For instance, breast augmentation surgery has been identified as "a means of establishing congruency between the body and mind, or developing an embodied self that was comfortable."83 The question of what is functional and what is aesthetic (and where psychology fits) becomes far more complicated when FGCS is performed as part of a public health service<sup>51</sup> rather than in private healthcare. However, the reasons given for surgery may be the ones women think surgeons want to hear; functional accounts may be emphasized.<sup>9,61</sup> The context of surgeries (public health system, private healthcare) needs to be taken into account when evaluating these reported reasons for seeking surgery.

In the case of labiaplasty, a condition designated hypertrophy of the labia minora<sup>84</sup> is used to provide an apparent *medical* warrant for labial reduction. Described in early case reports as labia that "protruded in a wing-like fashion from the vulva"84 or, in Jeffcoate's Principles of Gynaecology as "like a spaniel's ears,"<sup>30</sup> no explicit measurements of "abnormal" protrusion were initially given.<sup>84</sup> Later articles have focused on defining what counts as "hypertrophic" labia minorausually with no apparent evidence base-and this varies substantially: some researchers claim 5 cm or more from base to tip,<sup>31,42</sup> others claim 4 cm<sup>30,43</sup> or 3 cm (defined as "moderate to large labia minora hypertrophy"41). Some offer more specialized classifications: type I, <2 cm; type II, 2 cm-4 cm; type III, 4 cm–6 cm; type IV, >6 cm<sup>40</sup> or "lacking true hypertrophy" (<2 cm), "moderate hypertrophy" (2–3 cm), and "severe hypertrophy" (4 cm+).<sup>57</sup> Although occasionally identified as "a normal variant,"29 hypertrophy tends to invoke abnormal anatomy. Pardo et al.<sup>57</sup> for instance, defined labia minora of <2 cm as of "normal size", which implies that anything larger is abnormal. Likes et al. concluded that "the definition itself of labial hypertrophy lacks scientific evidence."27 (Other problematic aspects of the label hypertrophic labia are discussed later.)

At the broadest level, the underlying rationale for FGCS is that women "choose" these procedures, without outside influence. Women undergoing the procedure typically report that no other individual influenced their feelings or choice to have FGCS, although one occasionally finds reference to jokes or comments by others.<sup>39</sup> A Dutch study found 14% of a sample of 482 women reported receiving comments on their labia from a partner; 7% received comments from other women.<sup>85</sup> In the only study to assess this systematically among women having FGCS, 6.9% of 131 women reported being influenced by a male or female sexual partner or friend.<sup>56</sup> The idea of individual choice underpins the ethical acceptability of the procedure but is problematic, as debates about and critiques of FGCS show.

Paralleling the proliferation in the last decade of surgeons who offer FGCS, voices critical of FGCS have also increased. Coming both from outside medicine<sup>3,19,20,65,79,86–91</sup> and inside medicine/health,<sup>4,7–10,51,92–94</sup> as well as outside the academy,<sup>95–97</sup> these voices have raised numerous concerns in relation to the practice, marketing, and implications for women's health, of FGCS. Here, I discuss ethics and choice (two primary areas of debate), as well as broader issues related to advertising, aesthetics, and pathologization. As labiaplasty has tended to predominate in the medical, academic, and popular writing on this topic and is seen as "the most established"9 FGCS, much of the debate specifically refers to labiaplasty. These debates intersect with critical scholarship around women's bodies and sexualities, (bio)medicalization,98-103 and neoliberalism, choice and agency,91,104 which cannot fully be developed in this article.

## Ethics, FGCS, and Choice

Discussion of ethics has dominated the biomedical "debate" around FGCS,<sup>2,9,27,62,65,66,92,94,105,106</sup> some of which has specifically related to minors.<sup>44,62,77,106</sup> The debate has primarily invoked three biomedical ethical principles (autonomy, non-maleficence, beneficence) and focused on rights, choice/ coercion, and harm/benefit. Some expound the need for additional principles, such as truth telling and risks,<sup>2,27</sup> and touch

on the question of healing vs. happiness.<sup>65,66,92</sup> A very narrow framing of the three common ethical principles may allow for the claim that FGCS is ethically justified; a broader view raises more questions.

Although some claim that "for women who wish to have cosmetic reconstruction of the external genitalia, there is no valid reason to deny them this right,"<sup>66</sup> others contend that "the performance of a procedure for a non-life-threatening condition, with minimal evidence to support it, is likely to pose a moral and ethical dilemma."<sup>9</sup> Liao et al., for instance, recently concluded that:

Where decisions to operate on healthy sex organs are triggered by a perceived defect informed by commercial pressures, where reliable information on risks and benefits is unavailable and where there is no provision of alternatives because there is no concerted effort to develop them, the ethics behind informed consent are vastly compromised.<sup>6</sup>

Sokol<sup>92</sup> takes it further, arguing that doctors "should not succumb to requests" for FGCS. Some authors view FGCS *as* female genital mutilation (FGM)<sup>24,25,90</sup>; others note that some FGCS technically violates laws around and fits within (legal) definitions of FGM,<sup>62,87,88,107–109</sup> but this has "not been subject to legal scrutiny."<sup>87</sup> This has been characterized as a "double standard of morality"<sup>107</sup> that relies on the idea that Western women freely choose FGCS.<sup>87</sup>

Patient choice (autonomy) is most commonly used to ethically justify FGCS, but the concept needs broader analysis. For autonomy to operate, the coercive influences a patient needs to be free from include surgeon practices, and this covers marketing/advertising.<sup>2,65,66,79</sup> ACOG<sup>110</sup> noted that (easily found) marketing terms, such as pioneer and worldleading, are misleading and potentially attract vulnerable women.<sup>2</sup> If social control is enacted through advertising and media, which "create the guise of free choice,"90 free "choice" becomes culturally circumscribed. Some ask how autonomous individual choices can be when considerable societal and media pressure exists for women to alter their appearances<sup>66,92,104</sup> and note that "patient autonomy must answer to the context in which women are making ... choices."<sup>6</sup> The influence of culture on all women's perceptions and feelings about their bodies<sup>109,111</sup> and their sexuality<sup>112</sup> is well recognized: bodies gain meaning within historically and culturally specific contexts.87 Sullivan argues that "the ethical imperative is to interrogate the 'social imaginaries'—the perceptual schemas-that constitute embodied subjects and their affective investments in ways that incite and then discriminate against particular bodies and bodily practices."87

Certain sociocultural factors cluster to make women's "choice" for FGCS almost logical: negative sociocultural representations of women's genitalia<sup>113</sup> mean "pudendal disgust is a social reality"<sup>65</sup>; medicalization of sexuality<sup>99,114</sup> prioritizes medical analyses and solutions, obliterating alternative approaches<sup>26</sup>; the normalization of cosmetic surgery<sup>81,115,116</sup> makes it something for everyone; and the normalization of pubic hair removal<sup>117–120</sup> and pornography<sup>65,121</sup> bring visual attention to (certain versions of) vulval appearance,<sup>77</sup> even as many women remain unaware of the reality of vulval diversity.<sup>9,77,122</sup> The context also includes media coverage of, and advertising for, FGCS, which "may also fuel the desire for surgery."<sup>51,65</sup> (See Braun<sup>91</sup> for more discussion about choice/agency/culture and FGCS.)

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The notion of informed choice is further rendered problematic if desire for surgery undermines women's interest in risk,<sup>51</sup> which is again a complex issue.<sup>104</sup> Goodman<sup>2</sup> noted that patients view FGCS as "relatively risk-free," yet one media article reported a woman who had received a "G-shot" who could only recall one of the 68 listed risks.<sup>123</sup> The principle of autonomy does not mean the patient's will must be obeyed: respect for autonomy can involve talking patients out of surgeries,<sup>92,124</sup> a point raised in relation to cosmetic surgery generally.<sup>70</sup> Tracy<sup>125</sup> notes ACOG's position is that "although the decision of a patient to have an elective procedure should be respected, it doesn't necessarily have to be adhered to, if this decision ... conflicts with the physician's understanding of the level of risk."125 (Tracy125 also acknowledges the pressures that gynecologists may experience from patients who want this procedure and want to pay cash. She suggests this pressure/coercion may lead doctors to undertake the surgery and urges caution, as psychotherapy or other interventions may be successful, and risks are not yet established.) "First do no harm" must be taken seriously.<sup>70</sup>

As FGCS can currently be viewed as at least a "non-evidence based practice"<sup>51</sup> and even "an extreme and unproved intervention,"<sup>51</sup> there is insufficient evidence to claim these procedures are clearly *not* harmful,<sup>4</sup> nor is there enough to assess how much risk there might be compared with other more common elective cosmetic surgeries.<sup>125</sup> In sexual medicine, providing procedures that have been "demonstrated as ineffective" has been deemed unethical.<sup>126</sup> Examples discussed include most penile augmentation, FGM, and, potentially, male circumcision. FGCS appears also to fit this definition.

What these discussions suggest is that even by narrow criteria, the ethicality of FGCS is potentially undermined by a lack of evidence of benefit and of risk or lack thereof. However, looking more broadly, more complex issues emerge to muddy the question of ethics further.

#### Marketing and Medicalization

The influence of commercial imperatives is problematic<sup>65</sup> (a point recently noted in relation to the whole field of cosmetic surgery<sup>70</sup>). British surgeons have noted that "aggressive marketing has increased the demand for these procedures and enabled them to flourish despite the paucity of evidence."9 In a recent International Urogynecology Journal editorial, Pauls claimed that "what is unique to this area is the patented and secretive nature of some of the most marketed technologies and the large financial gain driving this industry."94 Although some surgeons are publishing case reports of techniques and even reporting patient satisfaction (however limited their measures might be<sup>9</sup>), others are not. One of the surgeons most publicizing of FGCS, Dr. Matlock,55 appears not to have published anything about his trademarked techniques. However, they are highly marketed using (ostensibly) evidence-based claims about outcomes,79 and Matlock offers training (for a fee); trained surgeons can then advertise-and use-his techniques.

Increasingly, FGCS is being critiqued as part of the wider medicalization of bodies, sexuality, psychology, and general life,<sup>65,86,92,93</sup> not least in relation to the label, hypertrophic labia minora. Alternatives to surgery for "treating" sexual or genital "problems" in women are rarely even raised and certainly not promoted in much medical and popular discourse about FGCS.<sup>89</sup> The message is not that women should be

encouraged to develop a healthy sexuality. It is "that a 'problematic' vagina... can be fixed through surgery" rather than change anything else,<sup>127</sup> such as a bike seat, for instance.<sup>77</sup> A key question is whether surgery treats a preexisting problem or it is a case of disease mongering.<sup>128</sup> Conroy<sup>24</sup> has argued that it is disease mongering and that Western medicine "is driving the advance of female genital mutilation by promoting the fear in women that what is a natural biological variation is a defect, a problem requiring the knife."24 Liao and Creighton suggest that "the provision of genitoplasty could narrow acceptable ranges [for labia minora] further and increase the demand for surgery even more."<sup>51</sup> Although disputed by surgeons operating in this area,<sup>129</sup> there is the potential that "a brand-new worry is being created"88 by the "existence and deployment of new flesh technologies."89

It is also important to question the aesthetic ideals and norms that may be being created.<sup>86</sup> Very few surgeons note that all female genitalia "are, in principle, normal"42,47 and that "the perception of female genital beauty is very much culturally dependent."47 Alter's account that "most consider an aesthetic ideal as labia minora and clitoral hood that do not protrude past the labia majora"<sup>37</sup> seems typical. What women reportedly seek through FGCS is a "neat" vulva that resembles that of a prepubescent girl51,62,130; a fleshy but smoothskinned (and firm) vulva, with labia minora that do not "protrude" beyond the labia majora; a "nicely" hooded and "contained" clitoris, as well as a "tight" vagina. Accounts and marketing of these procedures, including before and after photos, promote this particular aesthetic as the vulval ideal.<sup>79</sup> This "ideal" vulva exists at one end of the spectrum of normality and diversity related to shapes, sizes, colors, proportions and distances,<sup>131–133</sup> as well as age.<sup>62,72,132</sup> That Lloyd et al.<sup>131</sup> reported no significant association between any genital measurement and age, parity, ethnicity, hormone use, or history of sexual activity is relevant, as such factors are still claimed as relevant "causes" of labial enlargement.<sup>39</sup> The idea of a cause, which some authors seek to provide,<sup>43,45</sup> frames large labia minora in women as unnatural (prepubescent girls with hypertrophic labia is a different story<sup>45</sup>). Furthermore, some surgeons explicitly identify labial asymmetry as "a morphological defect"<sup>57</sup> and promote symmetry as the goal<sup>37</sup>; only one<sup>40</sup> reports asymmetry as normal (which it is, both in outcome<sup>132</sup> and developmentally<sup>62</sup>) and attempts to retain some labial asymmetry after labiaplasty.

# Genital Aesthetics, Pathologization, and Production of New Anxieties

The question to consider is whether new anxieties and, thus, markets are being created through the promotion of these surgeries and (implicitly and explicitly) a particular, narrow, vulval ideal. In a context where there seems still to be little general understanding of female genital diversity,<sup>77,122</sup> the effect of a narrow representation of aesthetic ideals has been questioned.<sup>6</sup> Some women already report feeling that their labia minora are not normal,<sup>31,34,77</sup> especially if there is any labia minora "protrusion" or asymmetry. A recent Dutch survey<sup>85</sup> reported nearly half (43%) of 482 respondents sampled at three sites (mean ages 22, 40, 41) considered labia minora appearance important, and 76% frequently examined their own labia minora; 38% paid regular attention to the

appearance of other women's labia minora. Seventy-one percent considered their appearance to be normal, 14% abnormal, and 7% had considered labiaplasty (this was higher among the older participants). The authors considered this evidence that "a new problem is evolving: heightened concern with the appearance of the female genitalia."<sup>85,134</sup>

Pathologization of vulval diversity is occurring,<sup>86</sup> which is the reappearance of an old "problem". "Long" labia have for a long time been taken as indicative of vulval and feminine pathology<sup>88</sup>; historically, measurement of women's vulvas aimed to identify associations between genital morphology and "conditions", such as lesbianism.<sup>135–138</sup> An interest in genital measurement and what it might mean continues around intersex individuals, where genitals beyond (or within) certain dimensions were framed as not male and not female and, thus, problematic and (typically) needing surgery.<sup>139,140</sup> It also continues in discussion of the "C-V distance", that between a woman's vagina and her glans clitoris; a recent *LA Times* article reported research that claimed that a distance of <2.5 cm "yield[s] reliable orgasms during sex"<sup>141</sup>—"sex" being intercourse.

In the FGCS literature, there is a more general contradiction between recognizing and acknowledging genital diversity and framing labial size as a problem. For instance, "there is a great variation in the size of the labia minora. When enlargement occurs. ... "<sup>33</sup> The word enlargement signals a state beyond normal but relies on presumptions of normality to determine what is actually enlarged. Such terms are applied to normal variation; for instance, the labia minora described by di Saia<sup>38</sup> as "enlarged" fit well within the range of normal labia minora demonstrated by Lloyd et al.<sup>131</sup> Language is not simply a tool for information transfer; it is bound up in the creation of reality as it represents it.<sup>142,143</sup> It (re)produces ideas about normality and pathology. The label hypertrophy is a perfect example of what might otherwise be normal variation becoming a legitimate problem—a *pathological* condition. There is anecdotal evidence that this language has shifted outside the realm of medical diagnosis.144

In a published debate on labiaplasty ethics, Bachmann noted that "language should be avoided that infers that the labia minora, labia majora, clitoral hood, or the mons pubis are misshaped or ugly and, through surgery, can be 'restored' to a more appealing size and shape."<sup>66</sup> However, such language is rife around FGCS.<sup>79</sup> A key challenge for women's health professionals and educators is developing a *different* language for labia minora, which does not implicitly reinforce the perception that there is a normal/desirable state (i.e., "contained") and an undesirable and pathological state (i.e., "protruding").

The narrow aesthetic has been linked to mainstream pornography. In Matlock's book, *Sex by Design*,<sup>145</sup> the chapter on labial reduction is titled "Centerfold Material: Aesthetic Improvements with Designer Laser Vaginoplasty."<sup>145</sup> Matlock claims many women "want Playboy-pretty outer vaginas (aesthetically-pleasing vulvar structures)."<sup>145</sup> His unreflexive reiteration of pornography images as the vulval ideal (an association critically noted by many others) illustrates an important point: surgeons bring culturally influenced personal values and preferences to the work they do.<sup>146,147</sup> They may also lack knowledge of "normality" in relation to labial diversity and size.<sup>77</sup> How healthcare professionals treat women's labial or vulval concerns can reinforce a perception of abnormality or challenge it. Although some surgeons note that reassurance of vulval normality and diversity is usually enough to allay patient concerns,<sup>42,43</sup> an assurance of normality alongside a referral to a specialist can actually tell the woman that she is "outside the sphere of normal genital appearance."<sup>61</sup> That such doctor-patient interactions, which might otherwise seem patient centered and good practice, could reinforce women's negative genital perceptions indicates a need to think carefully through how genital concerns are managed in healthcare settings. At present, only one set of guidelines (related to labia reduction requests specifically) has been produced for gynecologists.<sup>77</sup>

### **Ramifications of FGCS into the Future**

Although one might imagine that FGCS is an unlikely curiosity, general popularity apparently is increasing. Media coverage of new surgical interventions "seduc[es] more individuals to place their bodies under the surgeon's knife,"148,149 and this appears to be happening for FGCS. Although a different procedure in many ways, breast augmentation can be used to explore future possibilities for FGCS. Breast augmentation was, like FGCS, legitimized (in the 1950s) as a solution to a newly created condition, hypomastia,19 but has since expanded well beyond the realm of medical "necessity". It has risen rapidly, from a relatively rare operation to being the most common cosmetic surgical procedure in the United States in recent years;54,150 for instance, ASAPS data indicate procedures more than trebled between 1997 and 2008.54 A comparison made by a surgeon who offers FGCS, and "it's sort of coming out of the closet. It's basically where breast augmentation was 30 years ago,"151 offers little to suggest FGCS will prove to be a passing curiosity rather than, as one Australian plastic surgeon claimed about labiaplasty, procedures that are "here to stay."<sup>50</sup> FGCS potentially will become a sexual and reproductive health intervention that many women express interest in in the future and, thus, warrants critical attention now for both clinical practice and research.

I believe we have an ethical obligation to question technological bodily interventions that have inadequate evidence bases behind them and from which surgeons earn considerable income. I am not suggesting that the natural body is an ontological truth or that any (aesthetic) technological intervention into women's bodies is a priori wrong. In the case of FGCS, however, these interventions have many problematic dimensions. Writing about FGCS, Wilding called for "resistance to the unquestioned technological solutions to issues that have profound psychological, emotional, cultural, and even political origins and histories."<sup>89</sup> This article has aimed to take discussion of FGCS beyond the medical to show that surgery need not become an unquestioned solution to genital distress.

Changes claimed to be associated with FGCS are not just to do with material bodies; they are about psychology and the sociocultural. Smaller labia do not create more selfconfidence; the mind does that. There are undoubtedly many women with "small" and symmetrical labia minora who are not bursting with (sexual) self-confidence. Likewise, the perception that asymmetrical labia are disgusting, or simply sexually undesirable, does not reflect a material truth; it is a personal judgment that reflects certain sociocultural messages about genital morphology.<sup>113</sup> Similarly, the idea that surgery will resolve this "problem" is not a natural one; it is logical in a context of the medicalization of women's sexuality,<sup>99,114</sup> the

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normalization of cosmetic surgery,<sup>115,152</sup> and the promotion of FGCS.<sup>79</sup> The body is always socioculturally produced and mediated, and so is the mind. What is individually seen, known, experienced, and desired is culturally produced; it does not emerge purely from mental perceptual processes and material cell masses.

These "debates" about FGCS unfortunately tend to polarize around a perceived dichotomy: that either these procedures are helping patients and relieving a preexisting distress or the procedures and their advertising are creating a new problem, a new market and "fueling a dangerous situation."94 Instead of thinking in dichotomous terms, it is most fruitful to see that FGCS can be *both* of these, simultaneously. It can potentially relieve the distress an individual woman feels and may even improve her self-esteem and sex life (although the evidence for this is not adequate). At the same time, however, the promotion of this intervention is creating a situation that is worse for women overall, one in which women have yet another body worry and a particular genital norm to live up to. In this way, it can be seen as disempowering for women as a group. Thus, whereas surgery might provide "genital liberation" for individual women, it does nothing to improve the context in which women "choose" these procedures. Arguably, the practice and promotion of FGCS render women's genitalia surgical,<sup>81</sup> reinforcing a model of women's genitalia as in need of surgery and women's genital concerns as fixable *through* surgery.<sup>3</sup>

### Conclusions

I have reviewed and evaluated the evidence that currently exists about FGCS and discussed the burgeoning debates about it. Significant concerns exist in relation to the safety and efficacy of these procedures, not least because the evidence that currently exists is of questionable quality. FGCS currently should be classified as a set of procedures not clinically indicated and without an evidence base to support their efficacy. As the debates about FGCS show, the contexts and practice of FGCS are far more complex and nuanced than is typically acknowledged within clinical reporting of techniques and surgical outcomes. There remain troubling concerns related to such areas as ethics, choice, pathologization, and medicalization. It seems vital that the level of debate about FGCS be kept broad and critical if FGCS is not to become a commonplace, unquestioned cosmetic group of procedures.

At the very least, I would endorse Tiefer's call for:

a ban on consumer advertising; research that is not funded by industry; multimethod research which includes long-term psychosocial as well as biomedical measures; comprehensive sex education; attention to gender differences in the sources of distress and dissatisfaction; professional sanctions for conflicts of interest; and disclosure and transparency by all professionals involved.<sup>65</sup>

In relation to FGCS, we are far from this situation at present. At a practical level, guidelines for dealing with patient requests/concerns are being developed,<sup>2,77</sup> which is an important step. The issue of adequate surgical training<sup>153</sup> remains another.

FGCS presents a potentially complex challenge for providers of women's health services who aim to intervene to relieve patient distress in regard to genital appearance. The professional and public discussion around FGCS needs to be far broader than whether or not surgery might resolve an individual woman's concerns. As well as reviewing evidence about FGCS, this article has summarized key debates in order to aid critical discussion about this problematic form of cosmetic intervention.

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