

# Factors That Influence the Decision to Undergo Labiaplasty: Media, Relationships, and Psychological Well-Being

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## Abstract

**Background:** An increasing number of women are undergoing labiaplasty procedures; however, very little is known about the psychological factors that motivate women to seek out this procedure.

**Objectives:** To investigate the factors that influence women's decisions to undergo labiaplasty.

**Methods:** Women seeking to undergo labiaplasty ( $n = 35$ ) were compared with women who were not ( $n = 30$ ). Standardized measures were employed to assess the patients' media exposure (television, the Internet, advertising, pornography), relationship quality, and psychological well-being.

**Results:** Women's motivations for deciding to undergo a labiaplasty procedure were characterized as "appearance," "functional," "sexual," or "psychological" motivations, with concerns about the labia's appearance being the most commonly reported motivation. Correspondingly, women seeking labiaplasty were significantly less satisfied with the appearance of their genitals than the comparison group ( $P < .001$ ). These women had also experienced greater exposure to images of female genitalia on the Internet ( $P = .004$ ) and in advertisements ( $P = .021$ ), and had internalized these images to a greater extent ( $P = .010$ ). There were no differences between the two groups on the measures of relationship quality. However, significantly fewer of the women seeking to undergo a labiaplasty procedure were involved in a romantic relationship at the time of the study ( $P = .039$ ). There were also no differences between the two groups on the measures of psychological well-being, except that women seeking to undergo labiaplasty were less satisfied with their lives overall ( $P = .027$ ).

**Conclusions:** The findings identified media exposure and relationship status as important factors that influence women's decisions to undergo labiaplasty.

## Level of Evidence: 3



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Labiaplasty has become an increasingly popular cosmetic surgery procedure. In the United States, the demand for this surgery rose from 5070 in 2013 to 7535 in 2014, representing a 49% increase,<sup>1</sup> and similar trends have been documented in other Western countries, including Australia.<sup>2,3</sup> Labiaplasty most commonly involves reducing the size of the labia minora,<sup>4,5</sup> with the goal of achieving minimal or no protrusion of the labia minora beyond the labia majora.<sup>6</sup> Although labiaplasty patients generally appear satisfied with their surgical results,<sup>7,8</sup> the fact that many women who desire this surgery have anatomically normal genitals raises doubts about the necessity of the procedure.<sup>3,9,10</sup> Furthermore, we still know very little about the specific

factors that influence women's decisions to undergo labiaplasty.

The research on these influencing factors thus far suggests that aesthetic concerns are the primary motivation for women seeking to undergo labiaplasty, followed by

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physical or functional concerns of both a sexual and non-sexual nature.<sup>3,11,12</sup> For example, in a retrospective study of 163 labiaplasty patients, women's reported motivations for undergoing the procedure were as follows: aesthetic dissatisfaction with labia (87%), discomfort when wearing clothing (64%), discomfort when taking part in sports (26%), and painful sexual intercourse (43%).<sup>12</sup> One prospective study of 33 women seeking to undergo labiaplasty similarly found that labial appearance was the patients' most commonly reported concern (78%), followed by pain/discomfort (57%), difficulties with sexual intercourse (21%), discomfort when taking part in sports (15%), discomfort when wearing underwear/clothing (15%), anxiety or embarrassment (9%), and relationship difficulties (9%).<sup>3</sup>

These concerns were previously examined in detail in a retrospective qualitative study of six women who had undergone labiaplasty.<sup>13</sup> All six women reported that they perceived their genital appearance prior to their labiaplasty as "odd" or "weird." It seemed that these women were attempting to achieve a "normal" genital appearance through surgery.<sup>13</sup> However, their perception of what a normal genital appearance constitutes was very strict. Specifically, they desired a completely smooth vulvar surface with no protruding labia minora,<sup>14</sup> colloquially termed the "Barbie look."<sup>4,15</sup>

Such an unrealistic genital ideal does not develop in isolation, but rather as a function of broader sociocultural influences. Mass media is a powerful sociocultural influence on aesthetic ideals and has increased women's awareness of cosmetic procedures like labiaplasty. Research in unselected samples of young women has found that a greater endorsement or internalization of the beauty ideals promoted by mass media is predictive of more positive attitudes towards cosmetic surgery in general.<sup>16,17</sup> Similarly, media exposure (via television, the Internet, advertising, pornography) to images of female genitalia has been found to be the strongest predictor of whether women would be interested in undergoing labiaplasty in particular.<sup>18</sup> This study, by Sharp et al, also found that the influence of romantic partners and friends predicted a greater interest in labiaplasty, and having a satisfying romantic relationship and confidence in oneself as a sexual partner seemed to buffer against interest in undergoing labiaplasty.<sup>18</sup> However, these studies were conducted in general community samples, so it is yet to be determined whether these same sociocultural influences (media and relationship quality) are what drive women to actually decide to undergo labiaplasty.

To our knowledge, there has only been one previous controlled series of studies of the motivations and psychological characteristics of women seeking to undergo labiaplasty.<sup>11,19</sup> Veale et al<sup>11</sup> found that the 55 women in their sample who desired a labiaplasty were significantly more

dissatisfied with the appearance of their genitals than the 70 women who did not desire surgery. Furthermore, a significantly higher percentage of the labiaplasty group in this study (39%) were able to recall previously receiving specific negative comments about or reactions to their labia, compared with only 5% of the comparison group.<sup>19</sup> In addition, the women in the labiaplasty group reported having a lower quality of life in terms of their body image as well as an overall lower level of sexual satisfaction.<sup>11</sup> However, the two groups did not differ on general mental health; the women seeking to undergo labiaplasty were no more likely to report symptoms of anxiety and depression than those in the comparison group.<sup>11</sup>

The controlled study described herein aimed to further examine the influence of a number of sociocultural and psychological factors on women's decisions to undergo labiaplasty. Specifically, we hypothesized that women seeking to undergo labiaplasty would experience lower satisfaction with their genital appearance than women who were not interested in labiaplasty. We also predicted that they would have experienced greater exposure to images of female genitals in the media (television, the Internet, advertising, pornography) and would show greater internalization of the idealized media representations of female genitals. In addition, we predicted that women seeking to undergo labiaplasty would report a higher frequency of negative comments received from romantic partners about their genital appearance, and would be less satisfied in their romantic relationship and less sexually confident than women in the comparison group. Finally, we predicted that women who wanted to undergo labiaplasty would have a lower overall satisfaction with life than women who did not want to have this surgery.

## METHODS

### Participants and Procedure

Institutional review board approval for this study was obtained from the Flinders University Social and Behavioral Research Ethics Committee (Adelaide, Australia) prior to the study's initiation. Any adult woman who was at least 18 years old or older and was proficient in English was eligible to participate in the study. From December 2013 to September 2015, a total of 65 women were recruited into the study. The study sample included 35 women seeking to undergo a labiaplasty procedure, from nine private cosmetic and gynecology clinics throughout Australia (the labiaplasty group), and 30 women from two private gynecology clinics in Australia who were attending the clinics for general gynecological reasons (the comparison group). The women in the comparison group indicated that there was a <10% likelihood that they would undergo a labiaplasty in the future.

Information about the study and the questionnaire (in paper form) were distributed at the clinics. For the labiaplasty group, this occurred at their initial consultation for a labiaplasty procedure. The questionnaires were completed anonymously at a location of the participant's choosing. Participants were provided with a postage pre-paid envelope in order to return questionnaires to the researchers, and the participants' return of the completed questionnaire was considered to be informed consent. Because the questionnaires were completed anonymously, we cannot be certain whether all of the 35 women seeking to undergo labiaplasty ultimately underwent the procedure. However, all 35 women in the labiaplasty group provided an expected date for their surgery in their questionnaire.

## Questionnaire

The questionnaire was developed by the researchers and consisted largely of established and validated psychological measures. A few measures (exposure to images of female genitals in mass media, internalization of idealized genital appearance, comments from romantic partner) had to be developed or adapted for the labiaplasty context. A blank copy of the questionnaire is available as Supplementary Material at [www.aestheticsurgeryjournal.com](http://www.aestheticsurgeryjournal.com).

### Demographics

Participants were asked their age, height, weight, ethnicity, sexual orientation, and highest level of education completed. They were also asked whether they were currently involved in a romantic relationship, had ever had a sexual partner in their lifetime, and whether they had any children.

### Exposure to Cosmetic Surgery

Participants were asked if they had ever had any kind of cosmetic procedure and to describe these procedures (if applicable). In addition, the participants were asked if they personally knew anyone who had undergone labiaplasty.

### Motivations for Labiaplasty

The women who wanted to undergo labiaplasty were asked to provide the expected date for their surgery and respond to two open-ended questions regarding how long they had considered having the surgery, and their reasons for wanting to have the surgery. The participants' responses to the labiaplasty motivation item were coded independently by two raters, who categorized these responses into four themes: "appearance," "functional," "sexual," and "psychological" motivations. Inter-rater reliability<sup>20</sup> was high (Krippendorff's  $\alpha = .87$ ).

### Genital Appearance Satisfaction

Participants' satisfaction with their genital appearance was measured using the 11-item Genital Appearance

Satisfaction Scale.<sup>21</sup> Participants rated how often they agreed with each item (eg, "I feel that my labia are too large") on a 4-point Likert scale ranging from 0 (never) to 3 (always). Scores were summed to produce a total score, which ranged from 0 to 33, with higher scores indicating greater dissatisfaction with genital appearance. The internal consistency for the scale was high (Cronbach's  $\alpha = .95$ ).

### Media Exposure

A measure was developed to assess the participants' exposure to images of female genitals in the media. This measure was based on that used by Sharp et al<sup>18</sup> in their study of a general sample of Australian women. Participants were asked how often they had seen images of naked female genitals on television and online on a 5-point Likert scale ranging from 0 (none) to 4 (a great deal). They were also asked to identify the number of advertisements they had seen for genital cosmetic surgery using a 5-point Likert scale ranging from 0 (none) to 4 (more than 50). Participants were then asked to identify how much pornography they had viewed on three different media formats (magazines, the Internet, and movies) using a 5-point Likert scale ranging from 0 (none) to 4 (a great deal). Summed total scores ranged from 0 to 12, with higher scores indicating greater consumption of pornography. The reliability for the pornography scale was acceptable (Cronbach's  $\alpha = .76$ ).

### Internalization of the Genital Ideal

A measure was developed to assess the participants' internalization of the media's standards for ideal genital appearance. This measure was adapted from an existing five-item measure of individuals' internalization of thinness as an ideal beauty standard, the Sociocultural Internalization of Appearance Questionnaire-Adolescents.<sup>22</sup> Three items from this measure were adapted to the idealized genital appearance (eg, "I would like my genitals to look like the images of women's genitals in the media"). Participants rated their level of agreement with each of the three items on a 5-point Likert scale ranging from 1 (definitely disagree) to 5 (definitely agree). Summed total scores ranged from 3 to 15, with higher scores indicating greater internalization of the ideal genital appearance. The internal consistency for the scale was high (Cronbach's  $\alpha = .96$ ).

### Comments from Romantic Partners

The frequency with which participants had previously received negative comments about their labial appearance was assessed by a measure based on that of Sharp et al.<sup>18</sup> Participants who had a current romantic partner were asked, via two items, how often this romantic partner had given them negative feedback about the appearance of their genitals (ie, "How often has your romantic partner

given you negative comments about your genitals?” and “How often has your romantic partner suggested you alter/improve the appearance of your genitals?”). Participants rated each item on a 5-point Likert scale ranging from 0 (never) to 4 (very often). Summed total scores ranged from 0 to 8, with higher scores indicating more frequent comments. Reliability for the sample was acceptable (Cronbach’s  $\alpha = .80$ ).

### Relationship Satisfaction

Relationship satisfaction was measured using the seven-item Relationship Assessment Scale.<sup>23</sup> Participants who had a romantic partner at the time they completed the questionnaire rated each item (eg, “In general, how satisfied are you with your relationship?”) on a 5-point Likert scale ranging from 1 (not at all) to 5 (completely). Summed total scores ranged from 7 to 35, and internal consistency was high (Cronbach’s  $\alpha = .86$ ).

### Sexual Confidence

Confidence as a sexual partner was measured using the six-item Sexual Confidence Scale.<sup>24</sup> Participants who had ever had a sexual partner in their lifetime rated their level of agreement with each item (eg, “I have confidence in myself as a sexual partner”) on a 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). Summed total scores ranged from 6 to 36, and reliability for the present sample was high (Cronbach’s  $\alpha = .88$ ).

### General Psychological Distress

The five-item short version of the Hopkins Symptom Checklist,<sup>25</sup> which focuses on symptoms of anxiety and depression, was used as a general measure of the participants’ psychological distress. The short version of the scale has been shown to have good reliability and is considered to be a convenient replacement for the longer version.<sup>26</sup> Participants rated how much they had been bothered by each of five specific symptoms (ie, “feeling fearful,” “nervous or shakiness inside,” “feeling hopeless about the future,” “feeling blue,” and “worrying too much about things”) over the past 2 weeks on a 4-point Likert scale ranging from 1 (not at all) to 4 (extremely). Responses were averaged to form a score ranging from 1 to 4. The internal consistency was acceptable (Cronbach’s  $\alpha = .82$ ).

### Self-Esteem

Participants’ self-esteem was measured using the 10-item Rosenberg Self-Esteem Scale.<sup>27</sup> Participants rated how strongly they agreed with each item (eg, “I feel that I have a number of good qualities”) on a 4-point Likert scale ranging from 0 (strongly disagree) to 3 (strongly agree). Summed total scores ranged from 0 to 30, and the internal consistency was high (Cronbach’s  $\alpha = .87$ ).

### Satisfaction with Life

The five-item Satisfaction with Life Scale<sup>28</sup> was used to assess the participants’ satisfaction with their life as a whole. Participants rated how strongly they agreed with each item (eg, “In most ways my life is close to ideal”) on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Summed total scores ranged from 7 to 35, and internal consistency for the scale was high (Cronbach’s  $\alpha = .86$ ).

## Statistical Analysis

The data collected by the questionnaires were analyzed using IBM SPSS Statistics (version 22.0; IBM Corporation, Armonk, NY). For the demographic variables, differences between the two groups of study participants were examined using independent sample *t* tests or chi-square tests. Differences between the labiaplasty and comparison groups were found for romantic relationship status and parity status, and, hence, these variables were included as covariates in all subsequent group difference analyses. For the sociocultural and psychological variables, group differences were examined using analysis of covariance (ANCOVA). Although multiple statistical tests were conducted in this study, a correction for the *P* value was not applied, because a series of pre-planned, specific hypotheses were examined. Under these circumstances, applying a correction is not recommended,<sup>29</sup> and, thus, a value of *P* < .05 was considered to be statistically significant for all the statistical tests.

## RESULTS

### Demographics

The women in the labiaplasty group ranged in age from 18 to 56 years old (mean, 31.3 years; standard deviation [SD], 9.3), and the women in the comparison group ranged in age from 21 to 55 years old (mean, 35.8 years; SD, 8.6). As Table 1 shows, there were no significant differences between the two groups in terms of age, body mass index (BMI), ethnicity, sexual orientation, if the women had ever had a sexual partner, and highest level of education completed. However, a significantly lower percentage of women in the labiaplasty group were involved in a romantic relationship at the time they completed the questionnaire, and a significantly lower percentage reported having had a child (Table 1).

### Cosmetic Surgery Exposure

Of the 35 women seeking to undergo labiaplasty, 10 (28.6%) reported that they had previously undergone at least one cosmetic procedure. The procedures these

**Table 1.** Labiaplasty Group ( $n = 35$ ) vs Comparison Group ( $n = 30$ ) Participant Demographics

Characteristic	Labiaplasty Group	Comparison Group	P Value	Effect Size
Age, mean (SD), range	31.3 (9.3), 18-56	35.8 (8.6), 21-55	.052	$d = .49$
BMI, mean (SD), range	22.2 (3.7), 17.3-38.5	22.9 (3.7), 17.9-33.3	.467	$d = .18$
<b>Ethnicity, <math>n</math> (%)</b>				
White	34 (97.1)	29 (96.7)	.912	$\phi = .01$
Mixed	1 (2.9)	1 (3.3)		
<b>Sexual orientation, <math>n</math> (%)</b>				
Exclusively heterosexual	30 (85.7)	28 (93.3)	.474	$\phi = .15$
Predominantly heterosexual	4 (11.4)	1 (3.3)		
Predominantly heterosexual, but more than incidentally homosexual	1 (2.9)	1 (3.3)		
<b>Lifetime sexual partner status, <math>n</math> (%)</b>				
Yes	32 (91.4)	28 (93.3)	.774	$\phi = .04$
No	3 (8.6)	2 (6.7)		
<b>Current romantic relationship status, <math>n</math> (%)</b>				
Yes	21 (60.0)	25 (83.3)	.039	$\phi = .26$
No	14 (40.0)	5 (16.7)		
<b>Children, <math>n</math> (%)</b>				
Yes	12 (34.3)	20 (66.7)	.009	$\phi = .32$
No	23 (65.7)	10 (33.3)		
<b>Education, <math>n</math> (%)</b>				
Primary school	0 (0.0)	1 (3.3)	.321	$\phi = .27$
Secondary school	8 (23.5)	2 (6.7)		
Trade/Certificate/Diploma	8 (23.5)	7 (23.3)		
Undergraduate degree	11 (32.4)	11 (36.7)		
Postgraduate degree	7 (20.6)	9 (30.0)		

BMI, body mass index (weight kg/height  $m^2$ ); SD, standard deviation.

women had undergone were breast augmentation ( $n = 9$ ), rhinoplasty ( $n = 2$ ), botulinum toxin injections ( $n = 2$ ), rhytidectomy ( $n = 1$ ), liposuction ( $n = 1$ ), blepharoplasty ( $n = 1$ ), dermal fillers ( $n = 1$ ), and labiaplasty ( $n = 1$ ). The woman who had previously had a labiaplasty wanted to have revisional surgery. A significantly lower number ( $n = 2$ , 6.7%) of women in the comparison group reported having previously undergone a cosmetic procedure ( $P = .023$ ,  $\phi = .28$ ). The procedures these women had undergone were dermal fillers ( $n = 1$ ) and “forehead crease removal” ( $n = 1$ ). Only two women from each group reported knowing another woman who had had a labiaplasty ( $P = .873$ ,  $\phi = .02$ ).

## Motivations for Labiaplasty

The women in the labiaplasty group reported having considered undergoing labiaplasty for between 4 months and 20 years (mean, 6.0 years; SD, 5.4 years). As Table 2 shows, close to three quarters of the group reported concern about their labia’s appearance as their main reason for wanting to undergo labiaplasty, making it the most commonly reported reason. Nonsexual functional difficulties were the next most commonly reported reason, followed by difficulties with sexual intercourse/sexual relationships, and, finally, psychological issues. Of the 35

**Table 2.** Participant Motivations for Labiaplasty by Theme ( $n = 35$ )

Theme	Examples	$n$ (%) <sup>a</sup>
Appearance	“Didn’t like the look of my labia. Not what is shown on social media.” “Feel like I don’t look ‘normal.’”	25 (71.4)
Functional	“Discomfort during sporting activity.” “Discomfort wearing tight clothes and going to the toilet.”	24 (68.6)
Sexual	“I was sick of sexual discomfort during and after sex.” “It made me self-conscious in being with a new partner. I worried they would be as freaked out about it as I was.”	21 (60.0)
Psychological	“To improve my self-esteem – have been insecure and self-conscious for years.” “I know my labia are different, and this impacts my confidence.”	16 (45.7)

<sup>a</sup>Percentages do not sum to 100% because participants provided responses that were coded into multiple themes.

**Table 3.** Labiaplasty Group ( $n = 35$ ) vs Comparison Group ( $n = 30$ ) Participants on Sociocultural and Psychological Measures<sup>a</sup>

Measure	Labiaplasty Group	Comparison Group	$P$ Value	Cohen’s $d$
	Mean (SD)	Mean (SD)		
Genital appearance satisfaction	24.85 (6.12)	8.07 (7.52)	< .001	2.46
<b>Media exposure</b>				
Television	1.25 (1.04)	0.97 (0.67)	.226	0.31
Internet	2.09 (1.12)	1.07 (0.98)	.004	0.96
Advertisement	0.66 (0.76)	0.30 (0.53)	.021	0.54
Pornography	3.83 (2.68)	2.27 (2.59)	.104	0.57
Internalization	9.71 (3.48)	6.70 (3.41)	.010	0.87
<b>Relationship satisfaction</b>				
Partner comments <sup>b</sup>	0.52 (1.03)	0.16 (0.80)	.407	0.39
Relationship quality <sup>b</sup>	27.71 (5.99)	29.92 (4.05)	.395	0.44
Sexual confidence <sup>c</sup>	27.30 (5.86)	29.46 (5.62)	.634	0.38
<b>Psychological well-being</b>				
Psychological distress	1.87 (0.74)	1.61 (0.48)	.352	0.41
Self-esteem	20.37 (5.70)	21.72 (4.02)	.631	0.27
Satisfaction with life	22.37 (6.42)	27.52 (5.83)	.027	0.84

SD, standard deviation. <sup>a</sup>Romantic relationship status and parity status were controlled for as covariates. <sup>b</sup> $n = 21$  for the labiaplasty group and  $n = 25$  for the comparison group. <sup>c</sup> $n = 32$  for labiaplasty group and  $n = 28$  for comparison group.

women in this group, 27 (77.1%) provided reasons for wanting to undergo labiaplasty that matched more than one of the four categories identified by the researchers.

### Media Exposure, Relationship Quality, and Psychological Well-Being

As Table 3 shows, there were several significant differences between the labiaplasty and comparison groups for the sociocultural and psychological factors examined, after

controlling for the effects of romantic relationship status and parity status. As hypothesized, the labiaplasty group reported significantly higher dissatisfaction with their genital appearance than the comparison group, with a large effect size. For media exposure, on average, the labiaplasty group reported “sometimes” viewing images of female genitals on the Internet, and the comparison group “occasionally” viewed such images, representing a statistically significant difference between the two groups. The labiaplasty group also reported viewing significantly more

advertisements for genital cosmetic surgery (although the number was small), but, unexpectedly, the two groups did not differ on their exposure to female genitals on television and their exposure to pornography. As predicted, the women in the labiaplasty group reported having more strongly internalized the media representations of female genitals than the women in the comparison group.

The 21 (60.0%) and 25 (83.3%) women in the labiaplasty and comparison groups, respectively, who were involved in a romantic relationship at the time they completed the questionnaire reported having a high level of relationship satisfaction. Contrary to our prediction, level of relationship satisfaction did not differ significantly between the two groups. In addition, the women from both groups reported only infrequently receiving negative comments about their labial appearance from their current romantic partners. However, it must be noted that a significantly lower percentage of women in the labiaplasty group were involved in a romantic relationship/had a romantic partner at the time they completed the questionnaire. For the women who had had at least one sexual partner in their lifetime (labiaplasty group:  $n = 32$ , 91.4%; comparison group:  $n = 28$ , 93.3%), there was no significant difference between groups in their level of sexual confidence, which was reasonably high for both groups.

In terms of psychological well-being, as expected, the women in the labiaplasty group reported being significantly less satisfied with their lives in general than the women in the comparison group. In contrast, there were no significant differences between the two groups' levels of psychological distress or self-esteem.

## DISCUSSION

As one of the first studies to compare women seeking to undergo labiaplasty with women who were not seeking to have this surgery, the results of our study provide new information on the factors that motivate women to undergo labiaplasty. It has long been suggested that media representations of female genitals are a powerful influence on the growing demand for labiaplasty.<sup>30-35</sup> However, the present study is the first to actually demonstrate that women seeking labiaplasty have been exposed to a greater volume of these idealized media images and display a stronger desire to resemble these images than women not seeking labiaplasty. Also, contrary to the suggestion that the women who request labiaplasties are inhibited in their romantic relationships and are attempting to resolve relationship issues through surgery,<sup>3,13</sup> we found that these women did not differ from the comparison group in terms of their relationship satisfaction and sexual confidence. In addition, the levels of psychological distress and self-esteem reported by the labiaplasty group did not differ from the comparison group. However, women seeking to undergo labiaplasty

were less satisfied with their lives in general. In accordance with previous research,<sup>11</sup> we found that women seeking to undergo labiaplasty were more likely to have previously undergone cosmetic procedures than women in the comparison group. Although this represented only just over a quarter of the labiaplasty patient group, it does suggest that some of the patients in our study were concerned with the appearance of multiple body parts (in addition to their labia), which, as Veale et al<sup>11</sup> have suggested, could be indicative of body dysmorphic disorder (BDD). The influence of BDD among labiaplasty patients warrants further investigation.

Although the women in the labiaplasty group reported having a variety of motivations for wanting to undergo labiaplasty, like in other studies,<sup>3,12</sup> concern about their labia's appearance was the most commonly reported motivation. This is consistent with the high levels of dissatisfaction with their genital appearance reported by the women in the labiaplasty group. Nevertheless, we identified three other thematic categories from the women's reported motivations: functional, sexual, and psychological motivations. These categories correspond with those previously reported for labiaplasty patients<sup>3,7,12,19</sup> and thus confirm the complexity of women's motivations for undergoing labiaplasty.

As predicted, we found that the women in the labiaplasty group reported having had greater exposure to media images of female genitals than the comparison group, specifically via the Internet and genital cosmetic surgery advertising. Our results extend previous findings that media exposure is predictive of consideration of labiaplasty in general community samples<sup>18,30</sup> to women who present at clinics requesting labiaplasties. Thus, we have confirmed that the media is a powerful motivator and source of information about genital appearance and a strong influence on women's decisions to undergo labiaplasty.

Women are often too embarrassed to discuss the topic of genital appearance and genital surgery with friends or family members and prefer the anonymity of Internet searches.<sup>30,36</sup> Certainly, the women seeking to undergo a labiaplasty procedure in our sample reported knowing very few other women who had undergone labiaplasty with whom they could potentially discuss the topic. The issue with mainstream media being women's primary source of information regarding female genital appearance is that the mainstream only displays a very narrow range of labial appearances.<sup>37,38</sup> For women who are already concerned about their genital appearance, seeing images of female genitals on the Internet (some of which have been air-brushed<sup>39,40</sup>) may confirm to them that they are "abnormal" and require surgery to become "normal." Furthermore, increased advertising of genital cosmetic surgery may suggest to women who were previously unconcerned about their genital appearance that they should be motivated to conform to the media's ideal genital appearance.<sup>41</sup> It is

important that medical professionals educate women about the diversity of labial appearance and reassure them that their own genitals are within the normal size range. However, the women seeking labiaplasty in our sample displayed a significantly greater internalization of media genital ideals than the comparison group and so, even though these women may accept that their labia are normal in size, their desire to fulfil the genital ideal is likely to perpetuate their appearance concerns.

Although lower levels of sexual satisfaction have previously been reported in women who seek labiaplasty,<sup>11</sup> our study is the first to examine measures of relationship quality in these women compared with women not seeking to undergo labiaplasty. Contrary to our prediction, the women seeking to undergo labiaplasty in our sample displayed reasonably high levels of sexual confidence and satisfaction in their relationships, which did not differ from the comparison group. It must be noted, however, that only women who had a romantic partner at the time they responded to the questionnaire completed the relationship satisfaction measure. Just over half of the women in the labiaplasty group reported having a romantic partner at the time of the study, a proportion that was considerably smaller than in the comparison group and also in other comparable community samples of adult women.<sup>18,42</sup> As previous studies have alluded to,<sup>3,11,13</sup> it appears that a sizeable percentage of women seeking to undergo labiaplasty may avoid becoming involved in romantic relationships. Perhaps these women are anxious about a potential sexual partner's reaction to their labia's appearance. The reported level of negative comments from current romantic partners was very low in both groups. However, it is possible that women who want to undergo labiaplasty received negative comments from previous sexual partners.<sup>19</sup> Indeed, a small percentage of the women in our study described receiving negative feedback about the appearance of their labia from former partners in their qualitative responses. Therefore, the impact of these prior negative experiences on women's relationships should be explored by medical professionals when women request labiaplasty procedures. Patients' emotional concerns surrounding intimate relationships (as opposed to problems with sexual function) may not be so readily alleviated through labial reduction and may warrant further investigation.

In terms of overall psychological well-being, women seeking to undergo labiaplasty did not have significantly different levels of psychological distress or self-esteem from women in the comparison group. As two previous studies found,<sup>11,43</sup> it appears that women in our sample who wanted to undergo labiaplasty are, on average, in the normal range for psychological functioning. This finding contrasts with that of von Soest et al,<sup>44</sup> who demonstrated that symptoms of depression and anxiety, as well as a history of deliberate self-harm and parasuicide, predicted

prospective cosmetic surgery in a large community sample of women. This result could potentially differentiate labiaplasty patients from patients who undergo other forms of cosmetic surgery. However, further research in this area of inquiry is needed. Nevertheless, the women seeking to undergo labiaplasty in our sample did report having lower satisfaction with their lives overall than the women in the comparison group, potentially indicating that concerns about their labia had a negative impact on their quality of life.

A number of limitations should be taken into account when interpreting the results of this study. Our sample size was small and may not have been representative of the general population of women seeking to undergo labiaplasty, because these women were sourced from only private clinics in one country (Australia). Australia's private/public health system differs significantly from health systems in other countries, which may lead to differences in studies of labiaplasty patients conducted elsewhere in the world. Some of the study's measures had to be constructed or adapted for the study, and therefore warrant further psychometric investigation.

There were also some limitations in our examination of the role of other people in women's decision to undergo labiaplasty. In particular (as discussed above), we only assessed feedback from each woman's current romantic partner (if applicable). However, women may have received negative comments from other sources (eg, former partners, family members, health professionals) at any stage of their lives,<sup>19</sup> which may have contributed to their dissatisfaction with the appearance of their genitals and/or their avoidance of romantic relationships.

Furthermore, our measure of psychological distress was limited to symptoms experienced only in the 2 weeks prior to the participants' completion of the questionnaire. A more thorough examination of the mental health status of women who seek to undergo labiaplasty is warranted. In addition to BDD,<sup>11</sup> whether labiaplasty patients have a history of mood or eating disorders is worthy of exploration, because these disorders have been documented in other groups of cosmetic surgery patients.<sup>45,46</sup>

## CONCLUSIONS

The results of this study, one of the first controlled studies to examine the factors that motivate women to decide to undergo labiaplasty, provide new insights into the motivations and psychological characteristics of these women as well as a platform for future research. We identified that women who seek to undergo labiaplasty have had greater exposure to and have more strongly internalized idealized media representations of female genitals. Furthermore, fewer of the women in our sample who wanted to undergo labiaplasty were in a romantic relationship, which raises



the possibility that they avoid such relationships due to anxiety over a sexual partner's response to their labia's appearance. This group of women also reported being less satisfied with their lives overall. The results presented herein could potentially enable medical professionals to help their patients make better informed decisions when considering undergoing labiaplasty.

### Supplementary Material

This article contains supplementary material located online at [www.aestheticsurgeryjournal.com](http://www.aestheticsurgeryjournal.com).

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