Abstract

Background: The demand for labiaplasty has increased rapidly over recent years; however, very little is known about the experiences women have undergoing this surgery or the subsequent effects it has on their well-being.

Objectives: To explore women’s reasons for undergoing labiaplasty, their expectations, and preoperative and postoperative experiences.

Methods: One-on-one semi-structured interviews were conducted with 14 adult women who had undergone a labiaplasty procedure. The women were asked about their reasons for having labiaplasty, the processes of accessing and undergoing surgery, and how various aspects of their lives were influenced after having surgery. The interviews were audio recorded then transcribed verbatim. The interview transcripts were analyzed using thematic analysis owing to the exploratory nature of the study.

Results: Themes reflecting “media influence,” “negative commentary,” “physical vs appearance reasons,” “satisfaction with surgery,” and “sexual well-being” emerged from the analyses. Online media representations of labial appearance, and negative past experiences, primarily sexual in nature, contributed to women’s concerns about their labial appearance. Issues of physical discomfort were also common and were sometimes emphasized to potentially legitimize women’s requests for surgery. Most women were generally very satisfied with their surgical results, although some noted that their labia were not as small and/or symmetrical as they had expected. Most women reported significant improvements in their sexual well-being after surgery, however, some noted that their emotional discomfort around sexual intercourse had not improved.

Conclusions: These new insights into why women seek labiaplasty, their experiences and outcomes may assist clinicians in enhancing their communication with prospective patients.

Level of Evidence: 4

Accepted for publication January 14, 2016; online publish-ahead-of-print February 23, 2016.

A growing number of women are choosing to undergo female genital cosmetic surgery and the most popular of these procedures is labiaplasty. Labiaplasty is performed primarily for aesthetic reasons and is often advertised as a procedure which improves women’s physical, psychological, and sexual well-being. Indeed, the research thus far suggests that patients are generally very satisfied with the results of their labiaplasty; however, these satisfaction ratings were usually obtained via short non-standardized outcome measures. To date, there have only been two prospective studies using validated outcome measures in labiaplasty patients. The first study found in their sample of women undergoing vulvovaginal aesthetic surgery (which included labiaplasty) that although there was an initial increase in women’s sexual functioning 1 month after surgery, this was not maintained 6 to 9 months postoperatively. Moreover, there were no significant effects on women’s psychological functioning immediately after

Ms Sharp is a Clinical Psychology PhD Candidate, Dr Mattiske is a Senior Lecturer, Dr Vale is a Lecturer in Clinical Psychology, School of Psychology, Flinders University, Adelaide, SA, Australia.

Corresponding Author:
Ms Gemma Sharp, School of Psychology, Flinders University, GPO Box 2100, Adelaide, South Australia 5001, Australia.
E-mail: gemma.sharp@flinders.edu.au
surgery or at 6 to 9 months. The second study, comparing labiaplasty patients with a matched comparison group, similarly found that there were no long-term improvements in the labiaplasty patients' sexual functioning, measured between 11 and 42 months after surgery. However, these women experienced a sustained and significant improvement in their satisfaction with their genital appearance. Nevertheless, such quantitative questionnaire studies are somewhat limited in their capacity to provide an in-depth understanding of women's motivations for labiaplasty and the influence the procedure has on their lives postoperatively.

To our knowledge, there has been only one qualitative exploration of the reasons why women have labiaplasty, their experiences and expectations. Bramwell et al interviewed six women about their experience undergoing labiaplasty and described three overarching themes: “normality and defect,” “the process of accessing surgery,” and “sex lives.” All women interviewed reported that they perceived their genital appearance to be “abnormal” prior to surgery and that they were seeking a “normal” genital appearance through labiaplasty. The women also reported receiving potentially confusing messages about the normality of their genital appearance and the necessity of surgery when consulting with medical professionals. Furthermore, there was a tendency for some women to emphasize their physical symptoms (eg, irritation in clothing) when requesting labiaplasty, potentially to legitimize their requests. Finally, all of the sexually active women reported that their abnormal genital appearance negatively impacted their sexual relationships. However, in contrast to the trends reported in quantitative studies, having a labiaplasty did not necessarily improve the quality of their sex lives.

Although Bramwell et al’s study provided a very useful initial platform for research, it was limited in its scope, in particular, the influence of the media did not feature prominently in their theme description. A number of studies have highlighted the influence of media representations of female genitals, particularly pornography and cosmetic genital surgery advertisements, in the increased demand for labiaplasty. However, as highlighted in a recent review, our understanding of how women are using and interpreting these images and media content is still lacking. Along with media influences, studies have found that peer commentary about genital appearance is also an influential factor for women’s consideration of labiaplasty. In a study of the factors associated with women’s requests for labiaplasty, over a third of women seeking surgery had received negative comments about the appearance of their labia, predominantly from former sexual partners, compared to only 5 percent of women not seeking labiaplasty. However, women’s interpretations of these negative experiences and the impact of these experiences on women’s sexual relationships, and their decision to undergo labiaplasty, are yet to be explored.

In sum, it is clear that thorough evaluations of the reasons why women have labiaplasty and their experiences thereafter may benefit the labiaplasty field of research. Thus, in this study, a qualitative approach has been adopted involving in-depth interviews with women who have had a labiaplasty. The aim of the study was to examine women’s reasons for undergoing labiaplasty, with a particular focus on the influence of media, peers, and intimate relationships. Furthermore, we sought to investigate women’s experiences with medical professionals when seeking surgery. Finally, we aimed to explore women’s assessment of their surgical result and any postoperative effects on their intimate relationships and psychological well-being.

**METHODS**

**Participants**

Participants were 14 adult women living in Australia who had undergone surgical reduction of their labia minora (labiaplasty) during the period of January 2014 to April 2015. One participant had undergone a labiaplasty operation previously and had sought a revision. Four of the participants (29%) claimed Medicare (ie, Australia’s national health service) entitlements for their procedure. The interviews were conducted during the period of May 2015 to November 2015 when the participants were between 5 and 16 months postoperative (mean, 10.4 months; standard deviation [SD], 4.0). The 14 participants were recruited from a pool of 30 women (response rate: 46.7%) who had previously participated in the authors’ labiaplasty questionnaire research and had indicated interest in further research. Seven (50.0%) of the participants had previously been involved in a study disseminated from private cosmetic and gynecology clinics throughout Australia. The other 7 (50.0%) were involved in a study that was advertised online on Australian cosmetic surgery and women’s health forums. Any adult woman who was aged at least 18 years and was proficient in English was eligible to participate in any of this research. Table 1 shows participant demographic information.

**Procedure**

Ethics approval for the study was obtained from the Flinders University Social and Behavioral Research Ethics Committee (Adelaide, Australia). Women who had previously participated in the authors’ research and indicated interest in participation in other studies were sent an invitation via email or post to participate in a one-on-one phone interview with the first author (G.S.), a female, to discuss their labiaplasty experience. Women who were interested in participating provided informed consent via the return of a written consent form. The phone interviews were between 20 and 45 minutes in duration (mean, 30 minutes; SD, 10.0), and
participants were provided with a store voucher for 25 Australian dollars for their participation.

Interviews

Semi-structured interviews were employed in this study. Semi-structured interviews consist of a set of key questions to define the topics to be explored, however, there is also the flexibility for interviewees to briefly diverge from the key questions to explore issues of particular relevance to them. The first author (G.S.) began the interviews with confirmation, where needed, of the demographic details obtained from the previous research. The next section of questions involved exploring the participant’s satisfaction with the surgical outcomes and any effects labiaplasty had on their lives including in their intimate relationships and psychological well-being. This same framework was used in all interviews. However, if new information was introduced by the participant, this was explored as it may have contributed to relevant themes beyond the scope of the interview questions. A copy of the key questions used by the authors for the semi-structured interviews is available online as supplementary material at www.aestheticsurgeryjournal.com.

Data Analysis

All phone interviews were audio recorded and transcribed verbatim. As the purpose of the research was more exploratory, the interview transcriptions were analyzed using thematic analysis as outlined by Braun and Clarke. The first stage of analysis was to aggregate individual interview data into a contextual database. The second stage was to code the material where concepts were generated and sorted into recurring themes of interest. Categories were added such that they were as inclusive as possible to capture all the nuances in the data. The coding and theme generation was conducted by the first author (G.S.) in consultation with the second and third authors (J.M. and K.I.V.). The final categories were agreed upon by all authors.

RESULTS

Overall, the data from the 14 female participants, aged 23 to 59 years (mean, 38.4 years; SD, 11.9), reflected a number of categories that encapsulated women’s motivations, experiences and outcomes of labiaplasty. Six overarching themes emerged from the thematic analysis and these were: “media influence,” “negative commentary and experiences,” “physical vs appearance reasons,” “satisfaction with surgery,” “sexual well-being,” and “secrecy and acceptability.” As it was not possible to do justice to all themes in this paper, the first five of these themes were selected for this paper owing to their stronger clinical relevance.

Media Influence

This theme related to the influence of the media as a source of information about labiaplasty and labial appearance. The vast majority of women (n = 11, 78.6%) reported first hearing about the topic of labiaplasty in the media, most often a television show. Almost all participants (n = 13,
Almost all participants (n = 11, 78.6%) had been exposed to some kind of pornography in their lifetime. However, only two women (14.3%) explicitly linked their request for labiaplasty with a desire for their genitals to resemble those of porn actresses.

My goal for surgery was to have it tidy and nice … so it looked like the porno. (Participant 11, aged 24, 8 months postoperative)

Four women (28.6%) articulated that the reason they did not compare their own labial appearance to female porn actresses was an awareness that the genital representations in pornography were sometimes unrealistic.

I know that they’re not real and I know that they’re airbrushed as well. (Participant 2, aged 43, 8 months postoperative)

Instead, it appeared that the majority of participants (n = 10, 71.4%) tended to compare their own labial appearance with images they considered to be more valid representations. This was primarily the “before” labiaplasty photographs on surgeons’ websites.

I’d seen a lot on the internet like lots of “before” ones [photos] … I thought, oh my god, all these women are getting it done [labiaplasty]. Mine was still worse than theirs. (Participant 12, aged 46, 10 months postoperative)

**Negative Commentary and Experiences**

This theme reflected a cognitive bias towards information and experiences which confirmed that women’s preoperative labial appearance was unacceptable, and their subsequent dismissal of any competing evidence. The vast majority of participants (n = 10, 71.4%) could recall at least one negative experience which linked to the development of their distress surrounding their labial appearance. These were predominantly negative comments received from former sexual partners.

He just sort of grabbed me down there and said, “what’s this?” … And I was just so humiliated! (Participant 4, aged 59, 16 months postoperative)

However, these negative comments and experiences also involved discussions with friends, family members, and medical professionals for some participants.
discomfort, were somewhat critical of the need for labiaplasty for purely cosmetic reasons.

Then there are people who would do it purely for cosmetic and in that instance, the pain I went through and that was only one side. I really don’t see any reason for it. (Participant 5, aged 25, 6 months postoperative)

There were only three women (21.4%) in the sample who indicated that their labiaplasty was for purely cosmetic reasons. However, as exemplified by Participant 9, there was an awareness that their labiaplasty request might be viewed as superficial and thus less legitimate and so she labelled herself as “vain.”

I didn’t have any physical problems … I think I’m very vain in a way. I don’t like imperfections. (Participant 9, aged 23, 8 months postoperative)

For the women who reported a mixture of physical and appearance reasons, the desire for their surgery not to appear cosmetically driven influenced some women to omit their appearance concerns entirely when discussing with clinicians, particularly their general practitioner.

I just mentioned the medical reason so I just said they rub which was true but it was probably more for body image issues. (Participant 2, aged 43, 8 months postoperative)

I just explained for me it was the discomfort while [horse] riding. And I really didn’t go into the fact that … you know, the appearance or anything. (Participant 14, aged 54, 16 months postoperative)

Satisfaction with Surgery

This theme was related to women’s satisfaction with their surgery. All women reported that they were generally satisfied with the improvements in the appearance and physical function of their labia, and only minor complications (e.g., infection) were reported by four women (28.6%).

I love it! I couldn’t be happier! (Participant 11, aged 24, 8 months postoperative)

I’m really happy with the results that I got. Half the time I forget that I had it done and half the time or so I wonder why the hell I didn’t do it sooner. (Participant 7, aged 31, 9 months postoperative)

Most women (n = 9, 64.3%) reported that owing to the alleviation of their concerns about their labia through surgery, their overall self-perception had improved.

I think the biggest change was probably my confidence and self-esteem. I was just so happy … I’d never have to think about having a problem with my labia again. So this made me feel really good. (Participant 9, aged 23, 8 months postoperative)

However, over half the women (n = 8, 57.1%) reported that their postoperative labial appearance did not quite meet their expectations. More specifically, there was a sense that their genital appearance was still not “perfect,” which they seemed to define as labia that were completely symmetrical with no protruding labial tissue. When these women did not achieve this ideal genital appearance after surgery, they were slightly less satisfied with the surgery outcomes.

Oh I’m quite happy! Yep quite happy. I mean it didn’t turn out absolutely perfect like I’m not completely symmetrical. (Participant 4, aged 59, 16 months postoperative)

I’m glad I’ve had it done but I thought that I would have more of a level crotch area. (Participant 1, aged 49, 8 months postoperative)

Nevertheless, none of the women reported that they were willing to go through surgery again to alter their labial appearance further. Thus, there appeared to be a level of acceptance with their improved but still slightly “imperfect” labia.

I did mention it [the asymmetry] when I went back to the specialist and he said, ‘do you want me to correct it?’ But … I just didn’t want to go through it [surgery] again. (Participant 4, aged 59, 16 months postoperative)

Sexual Well-Being

This theme included concerns about sexual well-being and relationships prior to surgery and the impact labiaplasty had on these areas. As seen in Table 1, all of the women in our sample had had at least one sexual partner in their lifetime prior to surgery, and almost all were involved in a romantic relationship when they were interviewed. The vast majority (n = 12, 85.7%) mentioned that their concerns with their labia had impacted negatively on their sex lives prior to surgery. The women referred to anxiety about their partners seeing or touching their labia, particularly during oral sex, and also anxiety about starting new sexual relationships.

When he [partner] would go down on me [oral sex] … I guess there was that sort of reaction of this [labia] is different or weird or that sort of thing … it was just like, well you know what, we’re just not going do that [oral sex] anymore. Because I felt too conscious about it. (Participant 5, aged 25, 6 months postoperative)

I do also think that because I’ve had large labia, I haven’t slept around whereas otherwise I may have. (Participant 2, aged 43, 8 months postoperative)
Almost all of the 12 women who had experienced sexual difficulties (n = 10, 83.3%) reported a reduction in their anxieties around sexual intercourse after their labial reduction.

I feel a lot more comfortable having sex now because I think I used to be a bit ashamed or like tend to protect myself even though I’m very comfortable with him – we’ve been together for a long time now. But I guess I feel more free now. (Participant 8, aged 24, 13 months postoperative)

However, there were four women out of the 12 (33.3%) who commented that at least some of their difficulties with sexual intercourse and relationships were psychological in origin and were not alleviated through a labial reduction.

I still do find it hard to relax [during oral sex]. I’ve got years of issues in my brain about it … That’s something that doesn’t just go away with a new vagina. (Participant 10, aged 42, 5 months postoperative)

**DISCUSSION**

As one of the first in-depth qualitative explorations, our study showed that there were a number of important themes which describe women’s experience of undergoing labial reduction surgery and these were; media influence, negative commentary and experiences, physical vs appearance reasons, satisfaction with surgery, and sexual well-being. Although discussion of the themes of physical vs appearance reasons and sexual well-being have been included in previous qualitative research, our study was the first in-depth qualitative exploration of how women use online media content, in particular surgeon’s websites and cosmetic surgery forums, when considering labiaplasty. Furthermore, we are also the first to show that women who undergo labiaplasty may have a cognitive bias towards negative comments and experiences which confirm that their labial appearance is unacceptable and disregard any reassuring comments. Finally, we have also provided further insights into women’s satisfaction with the appearance of their labia after surgery. More specifically, although women are generally very satisfied with the improvement in appearance, some women feel their labia are still not “perfect.”

In accordance with previous studies suggesting that the media is the driving force behind the growing demand for labiaplasty, and a very recent study reporting the importance of internet images on women’s decisions to undergo labiaplasty, almost all of the women interviewed in our study reported using the internet as their main source of information about labiaplasty. Specifically, they relied heavily upon the content of surgeons’ websites and other women’s accounts of their labiaplasty experience on cosmetic surgery forums. Contrary to previous research in community samples, very few of the women explicitly linked their exposure to pornography with their desire for labial reduction surgery. This may have been a desire to distance their choice for surgery from pornography given the stigma surrounding pornography use, particularly for women. Furthermore, the predominantly smooth and hairless female genitals shown in pornography may still have provided these women with their first exposure to the genital ideal and may have potentially prompted their genital appearance concerns. Nevertheless, some of the women expressed that they did not consider pornography to be a reliable source of information owing to their awareness of the digital alteration of the labia in some pornographic images and the fact that porn actresses may themselves have already had a labiaplasty.

Instead, the women interviewed tended to compare their labial appearance to images they considered to be more valid, namely the “before” labiaplasty photographs on surgeons’ websites. A review of online advertisements for female genital cosmetic surgery found that the “before” photographs, although depicting larger labia, were still within normal size ranges. Liao et al also found that negative connotations for larger labia were implied on these websites such as “ugliness,” “odor,” and “irritation.” Therefore, if a woman has similar or larger sized labia than the normal sized labia shown in “before” photographs, her concerns about her genital appearance are likely to be reinforced. The “after” labiaplasty photographs generally show a “homogenized vulval appearance” with minimal or no protruding labia minora, thus perpetuating the genital ideal. The juxtaposition of the “before” and “after” images also serve to normalize labiaplasty as a solution to concerns around larger labia.

In addition to the influence of the media, and in keeping with the findings by Veale et al, a high percentage of the women here could recall a negative experience, which usually involved a former sexual partner. Some of the comments recounted could be considered to be objectively insulting, while others may have been misinterpretations of the comments and/or behaviors. On the other hand, some women reported receiving feedback that their preoperative labial appearance was acceptable, often from their current sexual partner. However, some women appeared to disregard affirmations and selectively attend to experiences which confirmed that their labial appearance was unacceptable. These negative interpretations about their labial appearance seemed to lead to emotional distress and subsequent avoidance behaviors, such as not wearing tight clothing and/or swimming costumes, avoiding medical investigations such as Pap smears etc. It is thought that these avoidance behaviors maintain these negative appearance interpretations through negative reinforcement as these behaviors help to reduce distressing emotions in the short term. However, in the long term, these behaviors
maintain the negative appearance interpretations as the individual never has the opportunity to learn that these situations could be managed if she had not avoided them. With an understanding of this negative interpretation bias, it is clear why recommendations for the education of prospective labiaplasty patients by their clinicians about normal genital appearance diversity, which seeks to reassure patients, may not necessarily lessen their desire for surgery. In order to address this negative interpretation bias, psychological interventions such as cognitive restructuring could be considered.

Another theme which emerged surrounded women’s justifications for undergoing labiaplasty. The controversy surrounding the necessity of labiaplasty has received considerable attention within the medical and scientific community, and in the popular media. The women involved in this study were seemingly aware of this controversy and appeared to make a considerable effort when articulating their reasons for having a labiaplasty. As reported in several other studies, almost all of the women interviewed reported a combination of physical and aesthetic concerns with their labia. However, unlike these other studies where appearance concerns were the primary motivator for labiaplasty, most of the women in this study reported that physical discomfort was more distressing than their aesthetic concerns. As suggested by Gimlin in her interview study of cosmetic surgery patients, the women may have been aware that their decision to undergo labiaplasty may be viewed by others as superficial or shallow and so aesthetic concerns were minimized. Similar to the findings of Bramwell et al., the emphasis of physical symptoms over appearance concerns was also noted for some of the women when they described their discussions with their clinicians. This could have been to legitimize their request for labiaplasty in front of clinicians whom they may have viewed as “gatekeepers.” This is particularly relevant for women seeking referrals for labiaplasty from their general practitioner and accessing surgery through a public health system.

As found in other labiaplasty outcome studies, the women interviewed in this study generally expressed high levels of satisfaction with both the appearance and function of their labia after surgery. Furthermore, this improvement in their perceptions of their genitals appeared to translate to improved confidence and self-esteem in general, consistent with qualitative studies investigating other types of cosmetic surgery. Nevertheless, over half of the women interviewed qualified that although they were satisfied with the improvement in their genital appearance, it was not “perfect” as they had hoped. From the descriptions provided, it appeared as though these women expected their labia to conform to the genital ideal like the “after” labiaplasty photographs they had viewed on surgeons’ websites. However, the desire for perfection was not sufficient for any of the women to report considering a revision. Although we did not specifically address body dysmorphic disorder (BDD) in our interviews or previous questionnaire research with these participants, Veale et al reported that 18% of women seeking labiaplasty in their study met criteria for BDD. It is important for clinicians to screen for symptoms of BDD when women request labiaplasty, as the vast majority of individuals with BDD report no change or a worsening of their symptoms after cosmetic treatments. In general, in order to decrease the likelihood of patient dissatisfaction, it may be important for clinicians and patients to discuss the likely appearance of their genitals after surgery. Patients may desire complete amputation of the labia minora in order to resemble the genital ideal, however, as stated by Lista et al., conservative excision is recommended in order to prevent over-reduction which is difficult to correct.

As found by Bramwell et al., the theme of sexual well-being was an important issue for almost all of the women interviewed. They reported that their genital appearance made them self-conscious, particularly with regards to oral sex. Furthermore, their concerns around their genital appearance made them hesitant when entering new intimate relationships. For the most part, the women found that their sexual and relationship concerns were alleviated after having a labiaplasty. This result is consistent with previous research reporting that genital appearance dissatisfaction is associated with greater genital image self-consciousness during physical intimacy, which, in turn, impacts negatively on sexual esteem and sexual satisfaction. Therefore, with the improvement in their satisfaction with their genital appearance, most women were able to feel more comfortable and confident in their sexual relationships. However, over a quarter of the women indicated that their psychological concerns around sex did not improve with the physical changes made to their labia minora. It will be important for clinicians to comprehensively assess women’s concerns around their sexual relationships when they request labiaplasty to determine whether psychosexual counseling might be a more beneficial option to address these concerns. As with all studies there are limitations to this study which must be acknowledged.

As this study was retrospective, it required participants to recall their experiences and, for some participants, their labiaplasty procedure was performed well over a year prior to the interview. It is likely that there were other experiences in their lives besides labiaplasty which influenced their relationship satisfaction and psychological well-being which were not explored in the interviews. Another limitation was that the sample size was relatively small and participants had already been involved in the authors’ labiaplasty questionnaire research before this study. Therefore, the participants who agreed to this further phone interview study may have had a particularly strong interest in the topic of labiaplasty. Furthermore, out of the 30 women invited to
participate in this interview study, the 14 (46.7%) who agreed may have been more comfortable and forthcoming in their discussion of sensitive topics such as sexual intercourse in an interview setting than the women who did not participate. A further limitation was that none of the women interviewed reported strong feelings of dissatisfaction with the results of their labiaplasty. Although the reports to date indicate that the vast majority of women are satisfied with their surgery, it would be beneficial to gain an understanding of the experiences of women for whom this surgery was not helpful. This study was also limited by the fact that all of the participants reported having at least one sexual partner before their labiaplasty. Crouch et al reported that over 60% of the 33 women requesting labiaplasty in their study had never been sexually active, and so it would be useful to explore how these individuals predict their labial appearance/function might impact their future sex lives and if they are delaying sexual activity as a result. This may involve interviewing a younger sample of individuals as the average age of the present sample was 38 years, with the youngest participant at 23 years.

CONCLUSIONS

As one of the first qualitative studies involving labiaplasty patients, we have provided new insights into their motivations, expectations, and experiences of surgery, thus providing a platform for future studies. The findings suggest that online media and negative peer commentary play an important role in women’s decisions to undergo labiaplasty. Women are also generally very satisfied with the results of their labiaplasty and this usually translates to improvements in their psychological and sexual well-being. However, women’s expectations were not always fulfilled, particularly concerning the effects on their sexual relationships. The results presented here will potentially allow clinicians to communicate more effectively with women who are seeking labiaplasty. A thorough understanding of the motivations and expectations of prospective labiaplasty patients will facilitate better decision making by the patient and increase the likelihood of the patient’s satisfaction with the outcome.

Supplementary Material

This article contains supplementary material located online at www.aestheticsurgeryjournal.com.

Acknowledgments

Sincere thanks are extended to all of the women who participated in this study.

Disclosures

The authors declared no potential conflicts of interest with respect to the research, authorship, and publication of this article.

Funding

The authors received no financial support for the research, authorship, and publication of this article.

REFERENCES

7. Rogers RG. Most women who undergo labiaplasty have normal anatomy; We should not perform labiaplasty. Am J Obstet Gynecol. 2014;211:218-218 e211.


