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Clinical and ethical perspectives of medical professionals towards female genital cosmetic procedures

Tıp uzmanlarının genital kozmetik müdahalelere klinik ve etik açıdan bakış açıları

Gülin Feykan Yeğin[1], Gökhan Kılıç[1], Elçin İşlek Seçen[1], İbrahim Buğra Bahadır[1], Emre Erdem Taş[2], Hüseyin Levent Keskin[3], Ayşe Filiz Yavuz[2]

[1]*Ankara City Hospital, Clinic of Gynecology and Obstetrics, Ankara, Turkey*

[2]*Yıldırım Beyazıt University Faculty of Medicine, Department of Gynecology and Obstetrics, Ankara, Turkey*

[3]*University of Health Sciences Turkey Faculty of Medicine, Department of Gynecology and Obstetrics, İstanbul, Turkey*

Abstract

Objective: To evaluate the attitudes of medical students and professionals towards female genital cosmetic procedures (FGCPs) in terms of medical justification, applicability in practical life, ethical concerns, patient autonomy, and the clinical/social/psychological benefits-harms of these procedures.

Materials and Methods: A semi-structured questionnaire providing information about the attitudes of medical students and specialists (n=623) towards FGCPs including G-spot amplification, clitoral hood reduction, vaginoplasty, labia majora augmentation/reduction, labia minora augmentation/reduction, hymenoplasty, laser procedures, vulvar/perianal bleaching, and liposculpture, was completed by a target population and evaluated statistically.

Results: Participants stated that FGCPs could be performed only upon patient request and there could rarely be a medical indication for their performance ($p<0.05$). Nearly half (44.5%) of the participants regarded hymenoplasty as controversial in terms of ethical issues, and 44.6% of participants do so for G-spot amplification. Over half (54.5%) of the participants agreed on the positive effect of FGCPs on improving the quality of life, 55.4% on improving self-esteem, and 54.1% on improving sexual functions of women. About half (49.3%) of respondents thought that the advertising and encouragement of FGCPs should be forbidden and 47% were indecisive about whether FGCPs constituted genital mutilation.

Conclusion: The majority of the participants declared that FGCPs could be performed only upon patient request and improve self-esteem, quality of life, and sexual functions. The most controversial procedures in terms of ethics were hymenoplasty and G-spot amplification. Detailed guidelines for the protection of both patients and physicians are needed because the recommendations on FGCPs are insufficient to define the boundaries of medical justification, genital mutilation, advertising, and ethical concerns.

Keywords: Cosmetic surgery, ethics, G-spot, hymenoplasty, vaginoplasty

Öz

Amaç: Tıp öğrencilerinin ve profesyonellerin kadın genital kozmetik prosedürlerine (KGKP) tıbbi gerekçelendirme, pratik hayatta uygulanabilirliği, etik kaygılar, hasta otonomisi ve prosedürlerin klinik/sosyal/psikolojik yararları-zararları açısından bakış açılarını değerlendirmek.

Gereç ve Yöntemler: Tıp öğrencileri ve uzmanların (n=623) G-noktası augmentasyonu, klitoral hudoplasti, vajinoplasti, labia majora büyütme/küçültme, labia minora büyütme/küçültme, himenoplasti, lazer prosedürleri, vulvar/perianal beyazlatma ve liposculpturing dahil olmak üzere KGKP'lere yönelik tutumları hakkında bilgi veren bir anket hedef popülasyona uygulanmış ve istatistiksel olarak değerlendirilmiştir.

Bulgular: Katılımcılar, KGKP'lerin yalnızca hasta talebi üzerine gerçekleştirilebileceğini ve nadiren prosedürün tıbbi bir endikasyonu olabileceğini belirtti ($p<0,05$). Katılımcıların %44,5'i himenoplastiyi etik açıdan tartışmalı bulurken, katılımcıların %44,6'sı aynı yorumu G-noktası amplifikasyonu için yapmaktadır. Katılımcıların %54,5'i, KGKP'lerin yaşam kalitesini iyileştirme, %55,4'ü benlik saygısı geliştirme ve %54,1'i kadınların cinsel işlevlerini iyileştirme üzerindeki pozitif etkisi konusunda hemfikirdir. Ankete katılanların %49,3'ü, KGKP'ler ile ilgili reklam stratejilerinin ve teşviklerinin yasaklanması gerektiğini düşünürken, %47'si KGKP'lerin genital mutilasyon olarak görülmesi konusunda kararsızdı.

PRECIS: By using a self-administered questionnaire, we evaluated the clinical, ethical, and sociocultural perspectives of medical professionals and students towards female genital cosmetic procedures.

Address for Correspondence/Yazışma Adresi: Gülin Feykan Yeğin MD,
Ankara City Hospital, Clinic of Gynecology and Obstetrics, Ankara, Turkey
Phone: +90 507 247 95 92 **E-mail:** gulin_yegin@hotmail.com **ORCID ID:** orcid.org/0000-0001-8006-5055

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Sonuç: Katılımcıların büyük çoğunluğu, KGKP'lerin sadece hastanın isteği üzerine yapılabileceğini ve benlik saygısını, yaşam kalitesini ve cinsel fonksiyonları iyileştirdiğini belirtmiştir. Etik açıdan en tartışmalı prosedürlerin, kızlık zarı dikimi ve G-noktası amplifikasyonu olduğu bildirildi. KGKP'ye yönelik kılavızlar tıbbi gerekçelendirme, genital mutilasyon, reklam ve etik kaygıların sınırlarını tanımlamak için yetersiz olduğundan; hem hastaların hem de doktorların korunması için ayrıntılı kılavuzlara ihtiyaç vardır.

Anahtar Kelimeler: Kozmetik cerrahi, etik, G-noktası, himenoplasti, labioplasti, vajinoplasti

Introduction

The term "female genital cosmetic procedures" (FGCPs) encompasses numerous interventions, including surgeries (G-spot amplification, labia majora augmentation, labia majora reduction, labia minora augmentation, labia majora reduction, clitoral hood reduction, vaginoplasty, and hymenoplasty) and non-surgical procedures (vulvar/perianal bleaching/whitening, liposculpture, laser for vaginal tightening, and laser for genitourinary syndrome of menopause). Although there is increasing popularity, patient demand and performance rate, ethical and safety concerns have been raised about the performance of FGCPs. The perception of "genital beautification" augmented by the Internet and media forces, caused women to fail in the decision of whether her vulvar image was normal[1,2]. Bioethical analysis of cosmetic surgery revives several controversial issues regarding the principles of ethical medical care[3]. The ethical concept of beneficence and non-maleficence has been forcing authorities to question the ethics of undergoing surgical risk to improve the physical appearance. In addition to medical objections, many critics are concerned about the social and cultural aspects of cosmetic surgery[3,4]. The results of a survey could be useful in determining clinical strategies regarding FGCPs in terms of health policies.

The goals of this survey were to analyze the attitudes of medical professionals and students towards FGCPs in terms of medical justification, applicability in practical life, ethical concerns, patient autonomy, and the clinical/social/psychological benefits-harms of these procedures.

Materials and Methods

This cross-sectional study was performed via a web-based, semi-structured questionnaire. Forms were collected between December 15th, 2019, and March 30th, 2020. The study was approved by the Institutional Review Board (E1/180/2019). The respondents were informed and consent for participation was obtained before administering the questionnaire.

The survey form was planned after a comprehensive review of the literature including medical indications, ethical issues, and controversial issues regarding esthetic gynecologic procedures[5,6].

The survey consisted of questions for 12 FGCPs (G-spot amplification, clitoral hood reduction, labia majora augmentation, labia majora reduction, labia minora augmentation, labia majora reduction, laser vaginal tightening, laser for genitourinary syndrome of menopause, vaginoplasty, vulvar/perianal bleaching, liposculpture and hymenoplasty) including:

1. First section: The demographics of the participants [age, sex, differentiation (students, specialists), speciality].
2. Second section: Participants' opinion about the existence of "G-spot" and ethical issues regarding hymenoplasty - 3 questions, 3-point Likert scale including answers: "agree", "indecisive", and "disagree".
3. Third section: The participants were questioned about whether the procedure was medically justifiable, and could be performed with only patient demand - 2 questions for 12 FGCPs separately, 3-point Likert for asking medical justification including answers "never/rarely/often" or 2-point Likert scale for others including answers "yes/no".
4. Fourth section: Participants were asked whether the procedures were "ethical", "unethical" or "debatable" in terms of medical ethics. Participants answered question separately for each of 12 FGCPs.
5. Fifth section: Participants opinions were asked about given speculative comments regarding patient selection criteria, age limit and potential benefits/harms - 13 questions were evaluated using 3-point Likert with answers: "agree", "indecisive", and "disagree".

The link of the questionnaire was sent to the target population via email (collected from the databases of medical societies), and also posted in specific social network groups for physicians/medical students. The data of the respondents were collected automatically through a web-based system (https://docs.google.com/forms, CA, USA). Statistical power analysis was performed before applying to the ethics committee, which showed that a sample of 387 would be enough to achieve a confidence level of 95% and a confidence interval of 5% according to the estimated size of the population of physicians and medical students in our country.

Statistical Analysis

The statistical analysis was performed using the Statistical Package for the Social Sciences (SPSS) software, version 20.0 (IBM Corp., Armonk, NY, USA). The chi-square test was used for the analysis of variables, and $p<0.05$ was considered statistically significant.

Results

Characteristics of Participants

The number of participants who received the survey was 623. One hundred twenty of the respondents were medical students/residents (81% were residents). Specialists were classified into four groups as follows: obstetrics and gynecology (n=183, 37%), general practitioners (n=101, 20%), other surgical

(n=117, 23%), and other non-surgical (n=102, 20%). Two hundred sixty-five (42.5%) of the participants were male and 358 (57.5%) were female. Assistants (speciality trainees) were also included in the specialists' group. All participants were working in public hospitals, and 243 (39%) were lecturers in universities. Two hundred twenty-nine (36.7%) respondents were aged ≤30 years, 186 (29.8%) were aged between 31 and 40 years, 160 (25.6%) were aged 41-50 years, and 49 participants were aged ≥51 years. Eighty-eight (14.1%) respondents planned to undergo plastic surgery and 36 (5.8%) had undergone at least one plastic surgery.

Results of Survey

Almost half (49.3%) of the participants found reasonable that a woman's need for hymenoplasty originated from social oppression (Figure 1). Differentiation (student/specialist) and sex was not an identifier on this statement. Most (63.2%) of participants agreed that women who are in demand should have hymenoplasty (Figure 1). One-third (33.9%) of the participants stated that performing hymenoplasty had no indications ever and this opinion was more common among specialists (Table 1). The opinion of the participants about hymenoplasty was evaluated as ethical, unethical or debatable in terms of ethics and the ratios were 40.3%, 15.2%, and 44.5%, respectively. The statement that hymenoplasty was controversial in terms of medical ethics was higher among females compared with males ($p<0.05$). Details of data regarding ethical perceptions are given in Figure 2 and Table 2. One-quarter (24.1%) of the participants considered that the G-spot existed (Figure 1); 26.4% of the females and 22.3% of the males agreed on

Table 1. Opinions of specialists on the medical justification of female genital cosmetic procedures

	Never % (n/N)				Rarely% (n/N)				Often % (n/N)				
	ObGyn	GP	Other surgical	Other non-surgical	ObGyn	General practioner	Other surgical	Other non-surgical	ObGyn	General practioner	Other surgical	Other non-surgical	p
G-spot amplification	39.3% 72/183	34.7% 35/101	25.6% 30/117	25.5% 26/102	43.2% 79/183	57.4% 58/101	64.1% 75/117	66.7% 68/102	17.5% 32/183	7.9% 8/101	10.3% 12/117	7.8% 8/102	**<0.01***
Clitoral hood reduction	22.4% 41/183	30.7% 31/101	17.9% 21/117	29.4% 30/102	57.9% 106/183	60.4% 61/101	70.1% 82/117	60.8% 62/102	19.7% 36/183	8.9% 9/101	12% 14/117	9.8% 10/102	**0.02***
Hymenoplasty	38.8% 71/183	34.7% 35/101	36.8% 43/117	36.3% 37/102	41% 75/183	57.4% 58/101	50.4% 59/117	53.9 55/102	20.2% 37/183	7.9% 8/101	12.8% 15/117	9.8% 10/102	**0.03***
Labia majora augmentation	25.1% 46/183	28.7% 29/101	26.5% 31/117	24.5% 25/102	55.2% 101/183	62.4% 63/101	59.8% 70/117	67.6% 69/102	19.7% 36/183	8.9% 9/101	13.7% 16/117	7.8% 8/102	0.08
Labia majora reduction	18% 33/183	26.7% 27/101	18.8% 22/117	26.5% 27/102	59.6% 109/183	65.3% 66/101	66.7% 78/117	65.7% 67/102	22.4% 41/183	7.9% 8/101	14.5% 17/117	7.8% 8/102	0.01
Labia minora augmentation	33.3% 61/183	28.7% 29/101	23.9% 28/117	26.5% 27/102	46.4% 85/183	63.4% 64/101	58.1% 68/117	65.7% 67/102	20.2% 37/183	7.9% 8/101	17.9% 21/117	7.8% 8/102	**<0.01***
Labia minora reduction	14.2% 26/183	24.8% 25/101	24.8% 29/117	28.4 29/102	57.9% 106/183	68.3% 69/101	61.5% 72/117	63.7% 65/102	27.9% 51/183	6.9% 7/101	13.7% 16/117	7.8% 8/102	**<0.01***
Vaginoplasty	3.8% 7/18	19.8% 20/101	8.5% 10/117	23.5% 24/102	55.2% 101/183	69.3% 70/101	66.7% 78/117	66.7% 68/102	41% 75/183	10.9% 11/101	24.8% 29/117	9.8% 10/102	**<0.01***
Laser vaginal tightening	18.6% 34/183	25.7% 26/101	21.4% 25/117	24.5% 25/102	56.8% 104/183	63.4% 64/101	60.7% 71/117	67.6% 69/102	24.6% 45/183	10.9% 11/101	17.9% 21/117	7.8% 8/102	**0.01***
Laser for GSM[a]	15.3 28/183	22.8 23/101	17.9% 21/117	23.5% 24/102	57.9% 106/183	66.3% 67/101	62.4% 73/117	66.7% 68/102	26.8% 49/183	10.9% 11/101	19.7% 23/117	9.8% 10/102	**0.01***
Vulvar/perianal bleaching	32.2% 59/183	31.7% 32/101	25.6% 30/117	29.4% 30/102	46.4% 85/183	60.4% 61/101	59% 69/117	62.7% 64/102	21.3% 39/183	7.9% 8/101	15.4% 18/117	7.8% 8/102	**0.01***
Liposculpture	32.8% 60/183	28.7% 29/101	34.2 40/117	25.5% 26/102	49.2% 90/183	64.4% 65/101	53.8% 63/117	66.7% 68/102	18% 33/183	6.9% 7/101	12% 14/117	7.8% 8/102	**0.02***

[a]GSM: Genitourinary syndrome of menopause, *statistically significant

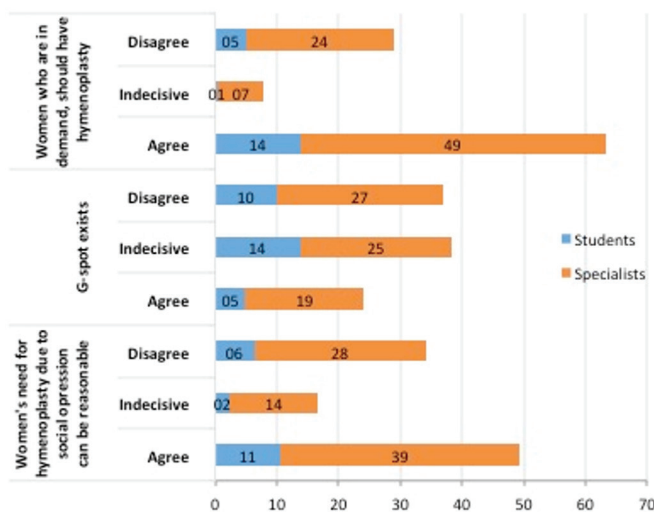

Figure 1. Expression of participants' thoughts about the existence of "G-spot" and ethical issues regarding hymenoplasty as percentages

the existence of the G-spot. In the entire cohort, 184 (29.5%) participants stated that there was no medical indication to perform G-spot amplification. Details about specialities are given in Table 1. Just over half (53%) of the entire cohort considered that G-spot amplification could be performed only upon patient request. The sex of the participants did not affect the attitude regarding G-spot procedures. Indecision about the ethical issues in G-spot amplification was higher among females ($p<0.05$). Details of data regarding ethical perceptions are given in Table 2 and Figure 2.

In the entire cohort, participants stated that all FGCPs could "rarely" be performed with a medical indication. The rate of answers that there was never a medical reason to perform the procedures was significantly higher for specialists compared with students, except for vaginoplasty ($p<0.05$). Surgeons (gynecologists and other surgical specialities) were more likely to think that labia majora reduction, labia minora augmentation, and vaginal laser procedures could be performed often with a medical indication (Table 1). The sex of the participants did not affect the opinion on medical indications of other cosmetic gynecologic procedures, except being a male was associated with the consideration of labia minora augmentation could often be performed with a medical indication (13.1% vs 19.6; $p<0.05$).

For all cosmetic gynecologic procedures, most of the participants considered that it could be appropriate to perform surgery only upon patient request (53% for G-spot amplification, 74% for clitoral hood reduction, 67% for hymenoplasty, 77% for labia major augmentation, 79% for labia majora reduction, 76% for labia minora augmentation, 78% for labia majora reduction, 81% for vaginoplasty, 78% for laser procedures, 78% for bleaching and 76% for liposculpture). Agreement on this statement was significantly low in specialist groups compared with the students. Typically, the ratio of the agreement on patient autonomy was significantly lower in the non-surgical specialist and general practitioner groups ($p<0.05$). In questioning procedures in terms of ethical principles, the most frequent answer was "ethical" (Table 2). Sex did not affect the ethical view of the participants, except for vulvar bleaching; being male was related to thinking that vulvar bleaching was unethical (6.8% vs 1.7%; $p<0.05$). Details of data on ethical perceptions are given in Table 2 and Figure 2. The majority (80.1%) of the participants stated that FGCPs should not be performed on girls aged under 18 years. More than half (56.3%) of the respondents agreed that FGCPs should be treated similarly to the surgeries at any anatomic site. Disagreement on this topic was most common among gynecologists and statistically significant, followed by the non-surgical specialities, general practitioners, and other surgical specialities, and the ratios were 50.5%, 27.1%, 13.1%, and 9.3%, respectively. The ratio of the participants who thought that the patient should be evaluated by a psychiatrist before undergoing surgery was 44.8%. The disagreement rate on psychiatric evaluation was significantly higher among gynecologists (58.3% of gynecologists, 8.6% of general practitioners, 13.7% of other surgeons, 19.4% of physicians in the non-surgical group; $p<0.05$).

One fifth (20.7%) of the participants stated that the procedures should not be performed in public hospitals and 49.3% thought that advertising and encouragement of FGCPs should be forbidden. Just under half (47%) were indecisive about the evaluation of FGCPs as genital mutilation. Indecision was more common among specialists. About one-fifth (19.1%) of physicians stated that FGCPs should be considered as genital mutilation and the rate of this statement was highest among gynecologists compared with other specialities (49.5% of gynecologists, 8.1% of general practitioners, 26.3% of other surgeons, 16.2% of physicianss in the non-surgical group; $p<0.05$).

Just over half (54.5%) of the participants agreed on the FGCPs effect on improving the quality of life, 55.4% on improving self-esteem, and 54.1% on improving sexual functions of women. While 25.4% of the study group considered that FGCPs were a temporary trend, 32.6% thought the opposite (Table 3).

The participants were indecisive about whether these procedures would improve dyspareunia and urinary incontinence, yet the disagreement rate was highest among gynecologists (dyspareunia; 65.5% of gynecologists, 17.1% of general practitioners, 5.3% of other surgeons, 11.8% of physicians in the non-surgical group; $p<0.05$) (urinary incontinence; 66% of gynecologists, 14.4% of general practitioners, 10.3% of other surgeons, 9.3 of physicians in the non-surgical group; $p<0.05$).

Discussion

The current survey showed that the majority of the participants considered that FGCPs were appropriate to perform only upon patient request ($p<0.05$). Procedures considered to be the most controversial in terms of ethics were hymenoplasty and G- spot

Table 2. Perceptions of specialists about ethical perspectives of female genital cosmetic procedures

	Ethical % (n/N)				Debatable in terms of medical ethics % (n/N)				Unethical % (n/N)				
	ObGyn	General practioner	Other surgical	Other non-surgical	ObGyn	General practioner	Other surgical	Other non-surgical	ObGyn	General practioner	Other surgical	Other non-surgical	p
G-spot amplification	42.1% 77/183	30.7% 31/101	65.8% 77/117	34.3% 35/102	45.4% 83/183	60.4% 61/101	26.5% 31/117	61.8% 63/102	12.6% 23/183	8.9% 9/101	7.7% 9/117	3.9% 4/102	**<0.01***
Clitoral hood reduction	69.4% 127/183	33.7% 34/101	74.4% 87/117	38.2% 39/102	28.4% 52/183	56.4% 57/101	15.4% 18/117	59.8% 61/102	2.2% 4/183	9.9% 10/101	10.3% 12/117	2% 2/102	**<0.01***
Hymenoplasty	47% 86/183	24.8% 25/101	44.4% 52/117	32.4% 33/102	36.1% 66/183	62.4% 63/101	38.5% 45/117	48% 49/102	16.9% 31/183	12.9% 13/101	17.1% 20/117	19.6% 20/102	**<0.01***
Labia majora augmentation	72.1% 132/183	41.6% 42/101	75.2% 88/117	51% 52/102	27.3% 50/183	50.5% 51/101	18.8% 22/117	49% 50/102	0.5% 1/183	7.9% 8/101	6% 7/117	0% 0/102	**<0.01***
Labia majora reduction	71% 130/183	43.6% 44/101	76.1% 89/117	40.2% 41/102	27.9% 51/183	51.5% 52/101	19.7% 23/117	57.8% 59/102	1.1% 2/183	5% 5/101	4.3% 5/117	2% 2/102	**<0.01***
Labia minora augmentation	71.6% 131/183	43.6% 44/101	70.9% 83/117	48% 49/102	26.8% 49/183	50.5% 51/101	23.1% 27/117	52% 53/102	1.6% 3/183	5.9% 6/101	6% 7/117	0% 0/102	**<0.01***
Labia minora reduction	72.1% 132/183	43.6% 44/101	72.6% 85/117	46.1% 47/102	27.3% 50/183	50.5% 51/101	20.5% 24/117	52% 53/102	0.5% 1/183	5.9% 6/101	6.8% 8/117	2% 2/102	**<0.01***
Vaginoplasty	74.9% 137/183	49.5% 50/101	79.5% 93/117	53.9% 55/102	24% 44/183	46.5% 47/101	16.2% 19/117	46.1% 47/102	1.1% 2/183	4% 4/101	4.3% 5/117	0% 0/102	**<0.01***
Laser vaginal tightening	73.2% 134/183	42.6% 43/101	75.2% 88/117	39.2% 40/102	26.2% 48/183	50.5% 51/101	18.8% 22/117	58.8% 60/102	0.5% 1/183	6.9% 7/101	6% 7/117	2% 2/102	**<0.01***
Laser for GSM[a]	75.4% 138/183	43.6% 44/101	75.2% 88/117	51% 52/102	24% 44/183	51.5% 52/101	17.1% 20/117	47.1% 48/102	0.5% 1/183	5% 5/101	7.7% 9/117	2% 2/102	**<0.01***
Vulvar/ perianal bleaching	69.4% 127/183)	38.6% 39/101	71.8% 84/117	49% 50/102	27.3% 50/183	56.4% 57/101	20.5% 24/117	48% 49/102	3.3% 6/183	5% 5/101	7.7% 9/117	2.9% 3/102	**<0.01***
Liposculpture	71.6% 131/183	41.6% 42/101	69.2% 81/117	47.1% 48/102	27.9% 51/183	52.5% 53/101	25.6% 30/117	46.1% 47/102	0.5% 1/183	5.9% 6/101	5.1% 6/117	6.9% 7/102	**<0.01***

[a]GSM: Genitourinary syndrome of menopause, *statistically significant

amplification. The majority of the participants agreed on the effect of FGCPs on improving the quality of life, improving self-esteem, and sexual functions of women. Near half of the respondents thought that the advertising and encouragement of FGCPs should be forbidden and were indecisive about whether FGCPs were genital mutilation.

In 2013, the Royal College of Obstetricians and Gynaecologists published an ethical opinion paper and pointed out that "the presentation of female genital cosmetic surgery (FGCS) as an unproblematic lifestyle choice is undesirable because it misleads women as to the need for and the efficacy of such surgical techniques" and stated that FGCS should not be undertaken unless it was medically indicated[7]. In July 2018, the United States Food and Drug Administration issued a warning against the use of energy-based devices outside of standardized research protocols for cosmetic vaginal procedures or vaginal "rejuvenation," citing their potential complications, including vaginal burns/scarring, dyspareunia, and chronic pain[8]. In January 2020, the American College of Obstetricians and Gynecologists (ACOG) offered the term FGCS only for procedures "not medically indicated" and defined FGCS as "surgical alteration of the vulvovaginal anatomy intended for cosmesis in women who have no apparent structural or functional abnormality". The ACOG also recommended informing women about the lack of high-quality data supporting the effectiveness of genital cosmetic surgical procedures and their potential complications[9].

For most FGCPs including hymenoplasty, G-spot augmentation, and clitoral hood reduction, the majority of the participants stated that there was rarely medical justification to perform the

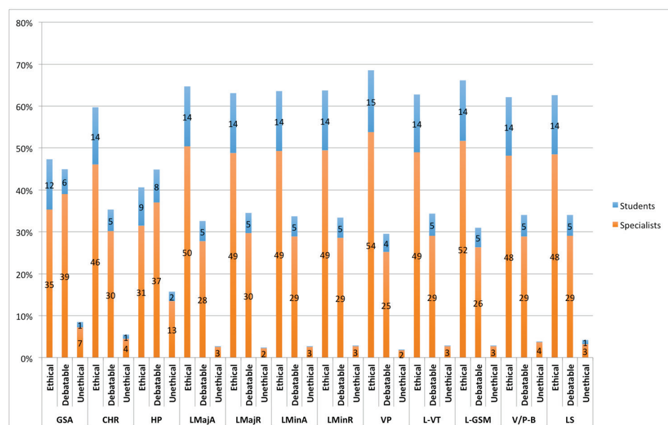

Figure 2. Perceptions of participants in terms of medical ethics

GSA: G-spot amplification, CHR: Clitoral hood reduction, HP: Hymenoplasty, LMajA: Labia majora augmentation, LMajR: Labia majora reduction, LMinA: Labia minora augmentation; LMinR: Labia minora reduction, VP: Vaginoplasty, L-VT: Laser vaginal tightening, L-GSM: Laser for genitourinary syndrome, V/P-B: Vulvar/perinal bleaching, LS: Liposculpturing

procedures despite recommendations of specialty committees. Although there is a lack of data to support the medical justification, especially for hymenoplasty, it is debatable if it can be performed because of religious reasons, after sexual abuse or preventing "honor" killings. According to the current survey, nearly half of the participants (49.3%) found reasonable of a woman's need for hymenoplasty originated from social oppression. It can be lifesaving for a woman in Muslim societies, and it can be demanded to revive a sexual life by another woman living in another society[10]. On the other hand, authorities have concerns about violating women's rights and perpetuating human rights abuses[6]. The indication for G-spot procedures is also controversial because anatomic, radiologic, and biochemical studies regarding the G-spot have failed to provide evidence of its existence[11]. In the current survey, 52.7% of the participants considered that the G-spot existed but 52.8% found the procedure debatable/unethical. The procedure that participants found most ethically controversial was hymenoplasty, with 59.7% of the participants stating that hymenoplasty was debatable or unethical.

The participants considered that FGCPs could be performed, only upon patient request without medical indications. Although autonomy is the most important principle of medical ethics, patient requests could be ignored if the procedure is against "non-maleficence"[9]. Patients who use autonomy should have sufficient knowledge about the procedure including scientific data about outcomes, complications, and comparisons of results with non-intervention[12].

"The International Society for the Study of Vulvovaginal Disease" (ISSVD) stated that genital surgeons should determine whether the patient is competent to make medical decisions as a first step and recommended psychological counseling to all women who were considering FGCPs to give them a chance to express undisclosed thoughts and feelings[4,13,14]. Body dysmorphic disorder (BDD) is another entity that should be considered during preoperative evaluation[15]. The prevalence of BDD was determined as 53.6% in patients demanding esthetic surgery and 61.1% in patients demanding genital cosmetic surgeries. In our cohort, although nearly half (44.8%) of the respondents supported psychological counseling before surgery, disagreement with this statement was highest among gynecologists.

The demand for FGCPs has been increasing in adults and teenagers[8]. Reaching adequate mental maturity is important for the patient to make rational decisions and also genital maturity should be provided to examine "normality" objectively. The Royal Australian College of General Practitioners, the ACOG, and the ISSVD recommend that FGCS should not be performed on girls aged younger than 18 years[4,16-18]. In the current survey, 81% of the participants also supported not performing FCGPs on girls aged under 18 years, irrespective of consent.

Just over half (54.5%) of the participants agreed on the effect of FGCPs on improving the quality of life, 55.4% on improving self-esteem, and 54.1% on improving sexual functions of women. While 25.4% of the study group considered that FGCPs were only a temporary trend, 32.6% thought the opposite. Some authors suggested that labiaplasty and vaginal tightening could improve sexual function and quality of life, whereas others failed to demonstrate improvement[19-22]. In January 2020, the ACOG stated in their revised bulletin regarding FGCPs that surgical alteration of the labia that was not necessary to the health of patients aged younger than 18 years was a violation of federal criminal law in the United States[9,23]. The World Health Organization defined female genital mutilation as "all procedures involving partial or total removal of the external female genitalia or other injuries to the female genital organs for non-medical reasons" and this statement also raises concern about whether genital cosmetic surgeries constitute genital mutilation[24]. Compatible with this discussion, nearly half of the participants (47%) were indecisive and 19.1% considered FGCPs as genital mutilation. In surgical specialties, the rate of disagreeing with the idea that genital cosmetic surgeries are genital mutilation was higher, while the opposite was raised in non-surgical specialties.

In many business areas, especially thanks to the fact that social media is also in our lives and the number of active users is increasing rapidly, professionals are free to advertise their work. However, advertising is not clear-cut in medical practice because of moral, ethical and deontologic concerns. Almost half of the participants (47%) did not find advertising suitable in terms of FGPCs. However, when the specialists' responses were examined independently, the group with the highest proportion of participants who thought that advertising could be used by cosmetic surgeons, was gynecologists.

Table 3. Participants opinions about speculative comments regarding female genital cosmetic procedures

	Agree % (n/N)		Indecisive % (n/N)		Disagree % (n/N)		
FGCPs	Student	Specialist	Student	Specialist	Student	Specialist	p
Should not be performed under age 18 years	75.8% 91/120	81.1% 408/503	15.8% 19/120	13.5% 68/503	8.3% 10/120	5.4% 27/503	0.34
Should be considered as any other surgery	61.7% 74/120	55.1% 277/503	26.7% 32/120	23.7% 119/503	11.7% 14/120	21.3% 107/503	0.06
Performed after psychiatric consultation	40% 48/120	45.9% 231/503	32.5% 39/120	26.4% 133/503	27.5% 33/120	27.6% 139/503	0.36
Can be peformed in public hospitals	57.5% 69/120	53.5% 269/503	33.3% 40/120	23.1% 116/503	9.2% 11/120	23.5% 118/503	**<0.01***
Should not be advertised	45.8% 55/120	50.1% 252/503	30.8% 37/120	24.7% 124/503	23.3% 28/120	25.2% 127/503	**0.38**
Should be considered as genital mutilation	16.7% 20/120	19.7% 99/503	59.2% 71/120	44.1% 222/503	24.2% 29/120	36.2% 182/503	**0.01***
Improve self-esteem	66.7% 80/120	52.7% 265/503	25.8% 31/120	28.8% 145/503	7.5% 9/120	18.5% 93/503	**<0.01***
Improve sexual function	64.2% 77/120	51.7% 260/503	30.8% 37/120	34.4% 173/503	5% 6/120	13.9% 70/503	**0.01***
Improve quality of life	61.7% 74/120	52.9% 266/503	34.2% 41/120	34.6% 174/503	4.2% 5/120	12.5% 63/503	**0.02***
Decrease dyspareunia	37.5% 45/120	34.4% 173/503	58.3% 70/120	50.5% 254/503	4.2% 5/120	15.1% 76/503	**0.01***
Decrease urinary incontinence	43.3% 52/120	35.4% 178/503	48.3% 58/120	45.3% 228/503	8.3% 10/120	19.3% 97/503	**0.01***
Have no benefit	7.5% 9/120	8.5% 43/503	23.3% 28/120	32.2% 162/503	69.2% 83/120	59.2% 298/503	0.12
Only a temporary trend	29.2% 35/120	24.5% 123/503	38.3% 46/120	42.9% 216/503	32.5% 39/120	32.6% 164/503	0.51

Study Limitations

The weak point of this survey is that all of the physicians who answered the questionnaire were working in public hospitals. Although the opinions of physicians working in the private sector may affect the results, the perceptions/attitudes of physicians working in public hospitals may be more objective because they have no conflicts of interests.

Conclusion

The majority of participants declared that FGCPs could be performed only upon patient request and improved self-esteem, quality of life, and sexual functions. The most controversial procedures in terms of ethics were hymenoplasty and G-spot amplification. As the recommendations on the FGCPs are insufficient to define the boundaries of medical justification, genital mutilation, advertising, and ethical concerns, detailed guidelines for the protection of both patients and physicians are needed.

Ethics

Ethics Committee Approval: The study was approved by the Institutional Review Board (E1/180/2019).

Informed Consent: The respondents were informed and consent for participation was obtained before administering the questionnaire.

Peer-review: Externally and internally peer-reviewed.

Authorship Contributions

Concept: G.F.Y., G.K., E.E.T., Design: G.F.Y., G.K., E.İ.S., Data Collection or Processing: G.F.Y., G.K., E.İ.S., İ.B.B., Analysis or Interpretation: H.L.K., Literature Search: H.L.K., Writing: G.F.Y., G.K., A.F.Y.

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