



Social Media, Aesthetic Surgery, and Psychosocial Factors: A Comparative Study

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Abstract

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This study compared social media use, attitudes toward aesthetic surgery, and psychosocial factors between a social media group (SMG) and an aesthetic surgery group (ECG). This descriptive and comparative study included 120 social media users and 120 individuals planning to undergo aesthetic surgery. The findings indicated that, in both groups, single participants exhibited higher levels of social media addiction and self-esteem. In the SMG, associate degree graduates exhibited higher self-esteem than master's degree graduates (p=0.022), whereas in the ECG, primary school graduates had higher levels of depression than associate degree graduates (p=0.014). Additionally, in the ECG, individuals whose income was lower than their expenses showed higher levels of social media addiction than other income groups (p=0.001; p=0.048). After aesthetic surgery, participants showed increases in social media addiction, the impact of body image on quality of life, positive attitudes toward aesthetic surgery, and body satisfaction, while depression levels decreased compared to pre-surgery levels and social media users (p<0.001). Furthermore, in the ECG, as the positive impact of body image on quality of life increased, the acceptance of aesthetic surgery also increased (p=0.022). These findings underscore the need for community-based initiatives that enhance media literacy, promote positive body image, and bolster self-esteem. They also indicate that individuals considering aesthetic surgery should be evaluated for social media addiction and depressive symptoms.

Keywords: Aesthetic surgery, body perception, depression, quality of life, self-esteem, social media

Öz

Bu çalışma, sosyal medya grubu (SMG) ve estetik cerrahi grubu (ECG) arasında sosyal medya kullanımı, estetik cerrahiye yönelik tutumlar ve psikososyal faktörleri karşılaştırmayı amaçlamıştır. Tanımlayıcı ve karşılaştırmalı yöntemle yürütülen araştırmaya, sosyal medya kullanan 120 birey ile estetik cerrahi planlanan 120 birey katılmıştır. Çalışmada, her iki grupta da bekar bireylerin sosyal medya bağımlılığı ve benlik saygısı düzeylerinin daha yüksek olduğu belirlenmiştir. SMG'de önlisans mezunlarının yüksek lisans mezunlarına kıyasla benlik saygısı düzeylerinin daha yüksek olduğu (p=0.022); ECG'de ise ilkokul mezunlarının önlisans mezunlarına göre depresyon düzeylerinin daha yüksek olduğu saptanmıştır (p=0.014). Ayrıca, ECG'de gelirleri giderlerinden düşük olan bireylerde diğer gelir gruplarına kıyasla sosyal medya bağımlılığının daha yüksek olduğu bulunmuştur (p=0.001; p=0.048). Estetik cerrahi sonrası bireylerde, cerrahi öncesine ve sosyal medya kullanıcılarına kıyasla sosyal medya bağımlılığı, beden imgesinin yaşam kalitesine etkisi, estetik cerrahiye yönelik olumlu tutum ve beden doyumu düzeylerinde artış; depresyon düzeylerinde ise azalma gözlenmiştir (p<0.001). Bunun yanı sıra, ECG'de beden imgesinin yaşam kalitesine olumlu etkisi arttıkça estetik cerrahiye yönelik olumlu tutumun da arttığı belirlenmiştir (p=0.022). Bu bulgular, medya okuryazarlığını geliştirmeye ve olumlu beden algısı ile benlik saygısını güçlendirmeye yönelik toplum temelli programların önemini vurgulamakta; estetik cerrahi düşünen bireylerde sosyal medya bağımlılığı ve depresyon düzeylerinin değerlendirilmesini önermektedir.

Anahtar Kelimeler: Estetik cerrahi, beden algısı, depresyon, yaşam kalitesi, benlik saygısı, sosyal





Introduction

In recent years, the rapid proliferation of social media platforms has significantly influenced individuals' perceptions of body image and physical attractiveness, contributing to a growing interest in aesthetic surgical procedures (Okgün-Alcan & Çetin, 2022; Shalmani & Jafari, 2024). An increasing number of studies have highlighted the impact of social media on the demand for aesthetic procedures (ASAPS, 2023). Among the most common aesthetic surgeries are liposuction, breast augmentation, blepharoplasty, abdominoplasty, and rhinoplasty (ISAPS, 2024).

Key psychosocial factors that drive individuals to pursue aesthetic surgery include body image, self-esteem, and body perception.

Body image refers to an individual's perceptions, emotions, and beliefs about their physical appearance (Borujeni et al., 2020; Okgün-Alcan & Canpolat, 2021; Shalmani & Jafari, 2024), while self-esteem reflects the degree of self-respect, selfapproval, and perceived self-worth. Body perception refers to how individuals internally visualize and interpret their own bodies (Karaca & Beydağ, 2021). Negative body image is often associated with lower self-esteem (Demirbaş, 2019), and several studies have reported that low self-esteem may increase the likelihood of seeking aesthetic surgical interventions (Heidarzadeh et al., 2019). Furthermore, aesthetic procedures have been shown to positively influence body perception and enhance satisfaction with one's appearance (Demirbaş, 2019).

Beyond improving physical appearance, aesthetic surgery is also associated with psychosocial benefits, including enhanced psychological wellbeing, increased self-confidence, and overall quality of life (QoL) (Karaca et al., 2017; Spadoni-Pacheco et al., 2018). Evidence demonstrates that aesthetic surgery can improve self-confidence (Asimakopoulou et al., 2020), body image, and selfesteem (Heidarzadeh et al., 2019; Kazeminia et al., 2023), as well as positively affect mental health outcomes, such as reducing anxiety, depression, and dysmorphic concerns, and improve QoL (Demirbaş, 2019; Kazeminia et al., 2023).

Although numerous studies have examined social media use, self-esteem, body perception, depression, QoL, and attitudes toward aesthetic surgery in social media users (Di Gesto et al., 2022; Okgün-Alcan & Çetin, 2022; Özer & Güzel, 2023; Swathi et al., 2023; Tecimer & Balcı, 2023) and individuals undergoing aesthetic surgery (Asimakopoulou et al., 2020; Borujeni et al., 2020; Emüler & Ayhan, 2021; Gajić & Gajić, 2022; Karaca & Beydağ, 2021; Katamanin et al., 2024; Shalmani & Jafari, 2024), there is a notable lack of studies that examine and compare these variables simultaneously across different groups. This gap has been highlighted by Gajić and Gajić (2022) and Okgün-Alcan and Çetin (2022). Therefore, this study compared social media use, attitudes toward cosmetic surgery, and psychosocial factors (self-esteem, body image, depression, and QoL) across both groups. Accordingly, it sought to answer the following research questions:

Research questions

- Do scale scores differ according to demographic characteristics between participants who use social media and those who have undergone aesthetic surgery?
- 2. Do scale scores differ between participants who use social media and those who have undergone aesthetic surgery?
- 3. Are there significant differences in scale scores before and after aesthetic surgery?
- 4. Which factors influence the acceptance of cosmetic surgery among the groups?

Method

Participants

The study is descriptive and comparative in design with two distinct populations. The first population consisted of patients who applied to the Plastic, Reconstructive, and Aesthetic Surgery Clinic at Kocaeli University Hospital for aesthetic surgical procedures between January 2 and June 30, 2023. The sample size for this group was determined through power analysis based on statistical parameters reported in the study by Okgün Alcan and Çetin (2022), titled "The effect of social media use on

women's attitudes toward aesthetic surgery." Using a significance level of α = 0.05, a power of 1- β = 0.95, and an effect size of 0.47, the required sample size was calculated as 117. To account for potential attrition, the study was conducted with 120 participants scheduled for aesthetic surgery (ASG). Inclusion criteria included being aged 18–65 years, providing informed verbal and written consent, and having no communication difficulties, psychiatric disorders, or cognitive impairments that could affect comprehension. Exclusion criteria were being under 18, having communication or psychiatric problems, or withdrawing from the study after surgery.

The second population comprised individuals aged 18–65 who were active social media users (SMG). To ensure balanced and homogeneous data distribution between the two groups, the sample size for this population was set at 120 participants, equal to that of the first group. Inclusion criteria for this population included being aged 18–65, regular social media use, and providing informed consent to participate in the study.

Data collection

In the sample group scheduled for aesthetic surgery, data were collected by the researcher (SM) through face-to-face interviews conducted in a quiet environment, free of patients' relatives or visitors, allowing participants to express their feelings comfortably. The data collection forms included the Descriptive Information Form (DIF), the Social Media Addiction Scale–Adult Form (SMAS-AAD), the Acceptance of Aesthetic Surgery Scale (ACSS), the Body Perception Scale (BPS), the Rosenberg Self-Esteem Scale (RSES), the Beck Depression Inventory (BDI), and the Body Image Quality of Life Inventory (BIQLI). Each interview lasted approximately 15–20 minutes.

Two months after the surgical procedure, the same patients were re-contacted either via phone or during their follow-up hospital visits. At this stage, all data collection instruments—except the Personal Information Form—were re-administered by the same researcher (SM).

For the sample group consisting of participants active on social media, data collection forms were

prepared using Google Forms and distributed via platforms such as Facebook, Instagram, Twitter, and WhatsApp. The form included a statement indicating that "completion of the questionnaire implies consent to participate in the study," and participant consent was obtained accordingly. To ensure completeness, the forms were structured so that respondents could not proceed to the next question without answering the current one. Additionally, IP tracking was employed to prevent multiple submissions from the same participant.

Data collection tools

Data were collected using the following instruments: DIF, SMAS-AAD, ACSS, BPS, RSES, BDI, and BIQLI.

DIF: Developed by the researchers, the form includes items regarding participants' demographic information (e.g., age, gender, education level, marital status, employment status), social media usage, and prior experience or knowledge related to plastic surgery.

SMAS-AAD: This 20-item scale was developed by Şahin and Yağcı (2017) and consists of 20 items to determine the level of social media addiction (SMA) in adults and to support preventive measures by evaluating the resulting outcomes. The scale comprises two sub-dimensions: Virtual Tolerance (Items 1-11) and Virtual Communication (Items 12–20). Total scores range from 20 to 100, with higher scores indicating a greater risk of SMA. The original reliability analysis reported a Cronbach's alpha of 0.94 for the total scale, 0.92 for the Virtual Tolerance subscale, and 0.91 for the Virtual Communication subscale (Şahin & Yağcı, 2017). In the present study, Cronbach's alpha coefficients were 0.932 for the SMG, 0.925 for the ASG, and 0.927 for the total sample.

ACSS: The scale, developed by Henderson-King (2005) and translated into Turkish by Karaca et al. (2017), is a 15-item, 7-point Likert-type instrument designed to assess individuals' attitudes toward cosmetic surgery. It comprises three sub-dimensions: intrapersonal, social, and consideration. Total scores range from 15 to 105, with higher

scores indicating more favorable attitudes toward aesthetic surgery. The Turkish adaptation demonstrated a Cronbach's alpha of 0.92 (Karaca & Beydağ, 2021). In the present study, Cronbach's alpha coefficients were 0.939 for the SMG, 0.901 for the ASG, and 0.933 for the total sample.

BPS: The scale was originally developed by Secord and Jourard (1953), and its Turkish adaptation was conducted by Hovardaoğlu (1986). It assesses an individual's satisfaction with 40 different body parts or functions. Higher scores indicate greater satisfaction with body perception, whereas scores below the cut-off point suggest dissatisfaction with one's body image. The scale has demonstrated strong internal consistency, with a Cronbach's alpha of 0.91 reported in the original Turkish adaptation (Hovardaoğlu, 1992). In the present study, reliability analysis yielded Cronbach's alpha coefficients of 0.905 for the SMG, 0.893 for the ASG, and 0.918 for the total sample.

RSES: The scale was developed by Rosenberg (1965), and its Turkish adaptation and validation were conducted by Çuhadaroğlu (1986). It is a selfreport instrument with 63 multiple-choice items. It includes twelve subcategories, which can be used separately in research if necessary. In the present study, only the first 10 items were used to assess participants' self-esteem levels, yielding a total score ranging from 0 to 30. Scores between 15 and 25 indicate adequate self-esteem, while scores below 15 reflect low self-esteem. The scale's Cronbach's alpha was previously reported as 0.71 (Karaca et al., 2017). In the current study, Cronbach's alpha coefficients were 0.878 for the SMG, 0.718 for the ASG, and 0.828 for the total sample.

BDI: The scale, developed by Beck et al. (1961), is a self-report instrument designed to assess emotional, somatic, cognitive, and motivational symptoms of depression (Beck, 1961). Its Turkish validity and reliability were established by Hisli (1989). The scale includes 21 symptom statements, with total scores ranging from 0 to 63: 0–9 indicating minimal depression, 10–16 mild, 17–29 moderate, and 30–63 severe depression. In the original study,

Cronbach's alpha was reported as 0.80 (Hisli, 1989). In the present study, Cronbach's alpha was 0.896 for the SMG, 0.874 for the ASG, and 0.969 for the total sample.

BIQLI: The scale was developed by Cash and Fleming (2002) to assess the effect of body image on an individual's quality of life (QoL) and the extent of this effect. It was adapted into Turkish by Demiral pet al. (2015), who also conducted validity and reliability analyses. The scale is a 19-item, 7point bipolar instrument, with each item scored from -3 to +3. Total scores range from -57 to +57, with positive scores showing a positive effect of body image on QoL, negative scores reflecting a negative impact, and a score of 0 suggesting no im-In the original Turkish adaptation, Cronbach's alpha was reported as 0.89 (Demiralp et al., 2015). In the present study, Cronbach's alpha was 0.970 for the SMG, 0.936 for the ASG, and 0.963 for the total sample.

Ethical considerations

Written approval for the study was obtained from the Kocaeli University Non-Interventional Clinical Research Ethics Committee (Date: 22.12.2022, Decision No: KU GOKAEK-2022/21.15) and the relevant hospital. To minimize potential bias, the objectives of the study were not disclosed to participants during recruitment, as prior knowledge could influence their responses. The primary aim of the study was explained to participants only after they had completed the data collection forms. Only data from participants who provided informed consent were recorded. Additionally, permission to use the scales in the study was obtained via e-mail from the responsible authors.

Data analyses

Statistical analyses were performed using IBM SPSS Statistics for Windows, Version 20.0 (IBM Corp., Armonk, NY, USA). The Kolmogorov–Smirnov test was used to assess the normality of data distribution. Numerical variables were presented as median (25th–75th percentile) and fre-

quencies (percentages). Cronbach's alpha coefficients were calculated to evaluate the internal consistency of the scales. The Mann–Whitney U test and Kruskal–Wallis test were used for comparisons of non-normally distributed variables. Differences between measurements were evaluated using the Wilcoxon signed-rank test for continuous

variables with non-normal distribution. Additionally, regression analysis was performed to identify factors associated with ACSS scores. A p-value of <0.05 was considered statistically significant.

Results

Table 1. Comparison of the groups according to socio-demographic and aesthetic surgery information (median (25th-75th nercentile) / n (%)

7 ^{5th} percentile) / n (%)						
		SMG (n=120)	ASG (n=120)	Total (n=240)	_ P ^a	
Characteristics		Median	Median	Median		
		(Q1-Q3)	(Q1-Q3)	(Q1-Q3)		
Age		26.50	23.00	24.00	0.985	
		(20.00-41.00)	(21.00-35.75)	(20.00-39.75)		
		n (%)	n (%)	n (%)	P ^b	
Gender	Female	107 (89.2)	84 (70.0)	191 (79.6)	_ p<0.001	
	Male	13 (10.8)	36 (30.0)	49 (20.4)		
Education Level	Primary school	0 (0.0)	9 (7.5)	9 (3.8)	_ p<0.001	
	Secondary school	3 (2.5)	4 (3.3)	7 (2.9)	_	
	High school	8 (6.7)	31 (25.8)	39 (16.3)	_	
	Associate degree	14 (11.7)	73 (60.8)	87 (36.3)	_	
	Bachelor's degree	69 (57.5)	3 (2.5)	72 (30.0)	_	
	Post-graduate	26 (21.7)	0 (0.0)	26 (10.8)		
Marital status	Single	de 70 (58.3) 84		154 (64.2)	0.062	
	Married	45 (37.5)	29 (24.2)	74 (30.8)	_	
	Widowed/divorced	5 (3.8)	7 (5.8)	12 (5.0)		
Employment	Unemployed	53 (44.2)	23 (19.2)	76 (31.7)	p<0.001	
	Civil servant	48 (40.0)	34 (28.3)	82 (34.2)		
	Working in private sector	5 (4.2)	6 (5.0)	11 (4.6)		
	Retired	0 (0.0)	8 (6.7)	8 (3.3)		
	Housewife	1 (0.8)	45 (37.5)	46 (19.2)		
	Others	13 (10.9)	4 (3.3)	17 (7.1)		
Income level	Income less than expenses	57 (47.5)	32 (26.7)	89 (37.1)	0.004	
	Income equal to expenses	51 (42.5)	68 (56.7)	119 (49.6)	_	
	Income more than expenses	12 (10.0)	20 (16.7)	32 (13.3)		
Use of social media	Yes	87 (72.5)	89 (74.2)	176 (73.3)	0.770	
	No	33 (27.5)	31 (25.8)	64 (26.7		
Following physicians or centers on	Yes	28 (23.3)	54 (45.0)	82 (34.2)	0.001	
social media related to aesthetic surgery	No	92 (76.7)	66 (55.0)	158 (65.8)	_	
Someone around having an aes-	Yes	81 (67.5)	70 (58.3)	151 (62.9)	0.142	
thetic surgery	No	39 (32.5)	50 (41.7)	89 (37.1)	_	
Previous aesthetic surgery	Yes	10 (8.3)	11 (9.2)	21 (8.8)	1.000	
0 7	No	110 (91.7)	109 (90.8)	219 (91.3)	_	
Most recent plastic surgery	Otoplasty	1 (10.0)	1 (0.8)	2 (1.5)	p<0.001	
1 0 3	Mammoplasty	3 (30.0)	10 (8.3)	13 (10.0)	_ *	
	Blepharoplasty	3 (30.0)	2 (1.7)	5 (3.8)	_	
	Rhinoplasty	1 (10.0)	69 (57.5)	70 (53.8)	_	
	Lip augmentation	2 (20.0)	0 (0.0)	2 (1.5)	_	
	Liposuction	0 (0.0)	6 (5.0)	6 (4.6)	_	
	Abdominoplasty	0 (0.0)	4 (3.3)	4 (3.1)	_	
	Others	0 (0.0)	28 (23.3)	28 (21.5)	_	
	Total	10 (100.0)	120 (100.0)	130 (100.0)	_	
	Change in physical appearance	3 (30.0)	73 (60.8)	76 (58.5)		
	Improvement of health problems	6 (60.0)	44 (36.7)	50 (38.5)	_	
Expectations from aesthetic surgery	Achieving social gains	1 (10.0)	3 (2.5)	4 (3.0)	0.002	
	Total	10 (100.0)	120 (100.0)	130 (100.0)	_	
	Yes	6 (60.0)	115 (95.8)	121 (93.1)		
	Not sure	2 (20.20)	1 (0.8)		_	
Satisfaction with aesthetic surgery	No No	2 (20.20)		3 (2.3) 6 (4.6)	— p<0.001	
			4 (3.3)		_	
	Total	10 (100.0)	120 (100.0)	130 (100.0)		

SMG: Social Media Group; ASG: Aesthetic Surgery Group

^a: Mann-Whitney U Testi; ^{b:} Pearson Chi-Square, Bold faced values are shown as p< 0.05.

Table 2. Comparison of median scale scores between groups according to certain demographic characteristics (n=240) (median ($25^{th}-75^{th}$ percentile))

Characterist	ics	SMAS-ADD	SMG (n=12 BIQLI	ACSS	BPS	RSES	BDI
Gender	Female (n=107)	53.00	85.00	63.00	88.00	25.00	32.00
Gender	Tentale (II 107)	(41.00-63.00)	(61.00-109.00)	(49.00-76.00)	(78.00-98.00	(20.00-29.00)	(28.00-42.00)
	Male (n=13)	59.00	76.00	59.00	100.00	24.00	33.00
	()	(51.50-69.50)	(66.50-106.00)	(47.00-96.00)	(80.50-110.00)	(21.00-27.50)	(24.50-37.00)
	p ^a	p=0.179	p=0.949	p=0.785	p=0.144	p=0.966	p=0.803
Marital	1. Single (n=70)	58.00	87.50	61.50	89.00	27.00	33.50
status	,	(49.00-68.25)	(62.00-107.25)	(44.25-75.25)	(77.75-100.00)	(21.00-31.25)	(28.75-42.00)
	2. Married (n=45)	46.00	85.00	62.00	89.00	24.00	31.00
	,	(33.50-59.50)	(63.00-112.00)	(49.00-77.00)	(79.00-99.00)	(19.00-25.00)	(24.00-38.00)
	3. Widowed/divorced (n=5)	50.00	84.00	81.00	79.00	25.00	29.00
		(40.50-59.50)	(58.00-105.50)	(57.00-86.00)	(70.50-97.50)	(20.00-28.50)	(29.00-40.00)
	p ^c	p=0.001	p=0.902	p=0.332	p=0.676	p=0.015	p=0.195
	p ^d	1>2***	•	•	•	1>2*	•
	1. Secondary school (n=3)	33.00	130.00	17.00	115.00	19.00	26.00
	•	(33.00)	(84.00)	(17.00)	(79.00)	(19.00)	(26.00)
Education	2. High school (n=8)	55.00	79.00	71.00	92.00	24.00	31.50
Level	_	(39.00-68.75)	(64.75-109.00)	(49.00-96.00)	(80.25-106.00)	(18.50-30.50)	(30.25-57.00)
	3. Associate degree (n=14)	57.50	60.00	50.50	100.00	28.00	37.50
		(43.75-69.75)	(45.25-116.50	(29.75-86.25)	(72.00-107.25)	(23.75-32.00)	(28.75-50.75)
	4. Bachelor's degree (n=69)	57.00	85.00	63.00	88.00	25.00	33.00
		(48.00-64.00)	(69.00-103.00)	(49.50-76.00)	(79.00-97.50)	(21.00-28.50)	(29.00-39.00)
	5. Post-graduate (n=26)	48.50	95.00	64.00	84.00	21.50	29.00
	_	(39.00-57.75)	(58.00-114.00)	(52.50-77.00)	(76.00-94.50)	(19.00-25.25)	(24.00-38.00)
	p ^c	p=0.148	p=0.252	p=0.506	p=0.244	p=0.028	p=0.255
	p^{d}	-	-	-	-	3>5*	-
Income	Income less than expenses	54.00	93.00	65.00	92.00	24.00	32.00
level	(n=57)	(40.50-64.50)	(62.00-113.50)	(49.00-76.00)	(77.50-104.50)	(20.00-29.50)	(27.00-42.50)
	Income equal to expenses (n=	52.00	82.00	58.50	88.00	25.00	31.00
	51)	(41.00-62.00)	(66.00-102.00)	(40.75-78.00)	(80.00-94.00)	(19.00-28.00)	(26.00-40.00)
	Income more than expenses	58.50	80.50	64.00	79.50	28.00	37.00
	(n=12)	(51.25-65.75)	(58.25-98.00)	(50.50-79.00)	(74.50-88.00)	(24.75-29.00)	(35.00-41.50)
	p ^c	p=0.356	p=0.517	p=0.448	p=0.112	p=0.151	p=0.114
PAS-ASG (r	n=120)						
Characterist	ico	SMAS-ADD	BIQLI	ACSS	BPS	RSES	BDI
Characterist	.105	SIMI IS TIDE	DIQLI				
Gender	Female (n=84)	66.00	96.50	91.50	90.00	21.00	1.00
	Female (n=84)	66.00 (4600-75.00)	96.50 (90.00-103.00)	91.50 (82.00-98.00)	90.00 (90.00-90.00)	21.00 (19.00-24.00)	1.00 (0.00-4.00)
		66.00 (4600-75.00) 69.00	96.50 (90.00-103.00) 99.50	91.50 (82.00-98.00) 88,00	90.00 (90.00-90.00) 103.00	21.00 (19.00-24.00) 22.00	1.00 (0.00-4.00) 0.00
	Female (n=84) Male (n=36)	66.00 (4600-75.00) 69.00 (47.50-72.75)	96.50 (90.00-103.00) 99.50 90.25-103.00)	91.50 (82.00-98.00) 88,00 (75.00-94.75)	90.00 (90.00-90.00) 103.00 (87.00-117.00)	21.00 (19.00-24.00) 22.00 (19.50-24.00)	1.00 (0.00-4.00) 0.00 (0.00-3.50
Gender	Female (n=84) Male (n=36) p ^c	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230	1.00 (0.00-4.00) 0.00 (0.00-3.50 p=0.143
Gender Marital	Female (n=84) Male (n=36)	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00	1.00 (0.00-4.00) 0.00 (0.00-3.50 p=0.143 1.00
Gender	Female (n=84) Male (n=36) p ^c 1. Single (n=84)	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00 (64.00-75.00)	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00 (90.00-103.00)	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00 (82.25-96.00)	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50 (91.00-112.75)	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00 (20.00-24.00)	1.00 (0.00-4.00) 0.00 (0.00-3.50 p=0.143 1.00 (0.00-3.00)
Gender Marital	Female (n=84) Male (n=36) p ^c	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00 (64.00-75.00) 41.00	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00 (90.00-103.00) 98.00	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00 (82.25-96.00) 87.00	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50 (91.00-112.75) 100.00	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00 (20.00-24.00) 21.00	1.00 (0.00-4.00) 0.00 (0.00-3.50 p=0.143 1.00 (0.00-3.00) 1.00
Gender Marital	Female (n=84) Male (n=36) p ^c 1. Single (n=84) 2. Married (n=29)	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00 (64.00-75.00) 41.00 (30.50-53.50)	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00 (90.00-103.00) 98.00 (90.50-102.50)	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00 (82.25-96.00) 87.00 (64.00-98.00)	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50 (91.00-112.75) 100.00 (90.00-118.00)	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00 (20.00-24.00) 21.00 (17.50-22.50)	1.00 (0.00-4.00) 0.00 (0.00-3.50 p=0.143 1.00 (0.00-3.00) 1.00 (0.00-3.50)
Gender Marital	Female (n=84) Male (n=36) p ^c 1. Single (n=84)	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00 (64.00-75.00) 41.00 (30.50-53.50) 49.00	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00 (90.00-103.00) 98.00 (90.50-102.50)	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00 (82.25-96.00) 87.00 (64.00-98.00) 82.00	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50 (91.00-112.75) 100.00 (90.00-118.00)	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00 (20.00-24.00) 21.00 (17.50-22.50) 21.00	1.00 (0.00-4.00) 0.00 (0.00-3.50 p=0.143 1.00 (0.00-3.00) 1.00 (0.00-3.50) 7.00
Gender Marital	Female (n=84) Male (n=36) p ^c 1. Single (n=84) 2. Married (n=29) 3. Widowed/divorced (n=7)	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00 (64.00-75.00) 41.00 (30.50-53.50) 49.00 (44.00-77.00)	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00 (90.00-103.00) 98.00 (90.50-102.50) 99.00 (82.00-131.00)	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00 (82.25-96.00) 87.00 (64.00-98.00) 82.00 (75.00-96.00)	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50 (91.00-112.75) 100.00 (90.00-118.00) 100.00 (66.00-125.00)	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00 (20.00-24.00) 21.00 (17.50-22.50) 21.00 (21.00-27.00)	1.00 (0.00-4.00) 0.00 (0.00-3.50 p=0.143 1.00 (0.00-3.00) 1.00 (0.00-3.50) 7.00 (0,00-13.00)
Gender Marital	Female (n=84) Male (n=36) p ^c 1. Single (n=84) 2. Married (n=29) 3. Widowed/divorced (n=7) p ^c	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00 (64.00-75.00) 41.00 (30.50-53.50) 49.00 (44.00-77.00) p<0.001	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00 (90.00-103.00) 98.00 (90.50-102.50)	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00 (82.25-96.00) 87.00 (64.00-98.00) 82.00	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50 (91.00-112.75) 100.00 (90.00-118.00)	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00 (20.00-24.00) 21.00 (17.50-22.50) 21.00	1.00 (0.00-4.00) 0.00 (0.00-3.50 p=0.143 1.00 (0.00-3.00) 1.00 (0.00-3.50) 7.00
Gender Marital	Female (n=84) Male (n=36) p ^c 1. Single (n=84) 2. Married (n=29) 3. Widowed/divorced (n=7) p ^c p ^d	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00 (64.00-75.00) 41.00 (30.50-53.50) 49.00 (44.00-77.00) p<0.001 1>2***	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00 (90.00-103.00) 98.00 (90.50-102.50) 99.00 (82.00-131.00) p=0.872	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00 (82.25-96.00) 87.00 (64.00-98.00) 82.00 (75.00-96.00) p=0.241	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50 (91.00-112.75) 100.00 (90.00-118.00) 100.00 (66.00-125.00) p=0.697	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00 (20.00-24.00) 21.00 (17.50-22.50) 21.00 (21.00-27.00) p=0.037	1.00 (0.00-4.00) 0.00 (0.00-3.50 p=0.143 1.00 (0.00-3.00) 1.00 (0.00-3.50) 7.00 (0,00-13.00) p=0.059
Gender Marital	Female (n=84) Male (n=36) p ^c 1. Single (n=84) 2. Married (n=29) 3. Widowed/divorced (n=7) p ^c	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00 (64.00-75.00) 41.00 (30.50-53.50) 49.00 (44.00-77.00) p<0.001 1>2***	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00 (90.00-103.00) 98.00 (90.50-102.50) 99.00 (82.00-131.00) p=0.872	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00 (82.25-96.00) 87.00 (64.00-98.00) 82.00 (75.00-96.00) p=0.241	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50 (91.00-112.75) 100.00 (90.00-118.00) 100.00 (66.00-125.00) p=0.697	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00 (20.00-24.00) 21.00 (17.50-22.50) 21.00 (21.00-27.00) p=0.037	1.00 (0.00-4.00) 0.00 (0.00-3.50 p=0.143 1.00 (0.00-3.00) 1.00 (0.00-3.50) 7.00 (0,00-13.00) p=0.059
Gender Marital	Female (n=84) Male (n=36) p ^c 1. Single (n=84) 2. Married (n=29) 3. Widowed/divorced (n=7) p ^c p ^d 1. Primary school (n=9)	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00 (64.00-75.00) 41.00 (30.50-53.50) 49.00 (44.00-77.00) p<0.001 1>2*** 49.00 (45.00-57.50)	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00 (90.00-103.00) 98.00 (90.50-102.50) 99.00 (82.00-131.00) p=0.872 96.00 (86.00-100.00)	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00 (82.25-96.00) 87.00 (64.00-98.00) 82.00 (75.00-96.00) p=0.241 92.00 (71.00-104.50)	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50 (91.00-112.75) 100.00 (90.00-118.00) 100.00 (66.00-125.00) p=0.697 95.00 (86.00-97.50)	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00 (20.00-24.00) 21.00 (17.50-22.50) 21.00 (21.00-27.00) p=0.037 23.00 (22.00-26.00)	1.00 (0.00-4.00) 0.00 (0.00-3.50 p=0.143 1.00 (0.00-3.00) 1.00 (0.00-3.50) 7.00 (0,00-13.00) p=0.059 4.00 (2.00-13.50)
Gender Marital	Female (n=84) Male (n=36) p ^c 1. Single (n=84) 2. Married (n=29) 3. Widowed/divorced (n=7) p ^c p ^d	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00 (64.00-75.00) 41.00 (30.50-53.50) 49.00 (44.00-77.00) p<0.001 1>2*** 49.00 (45.00-57.50) 41.00	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00 (90.00-103.00) 98.00 (90.50-102.50) 99.00 (82.00-131.00) p=0.872 96.00 (86.00-100.00)	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00 (82.25-96.00) 87.00 (64.00-98.00) (75.00-96.00) p=0.241 92.00 (71.00-104.50) 88.50	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50 (91.00-112.75) 100.00 (90.00-118.00) 100.00 (66.00-125.00) p=0.697 95.00 (86.00-97.50)	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00 (20.00-24.00) 21.00 (17.50-22.50) 21.00 (21.00-27.00) p=0.037 23.00 (22.00-26.00) 23.00	1.00 (0.00-4.00) 0.00 (0.00-3.50 p=0.143 1.00 (0.00-3.00) 1.00 (0.00-3.50) 7.00 (0,00-13.00) p=0.059 4.00 (2.00-13.50) 5.00
Gender Marital status	Female (n=84) Male (n=36) p ^c 1. Single (n=84) 2. Married (n=29) 3. Widowed/divorced (n=7) p ^c p ^d 1. Primary school (n=9) 2. Secondary school (n=4)	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00 (64.00-75.00) 41.00 (30.50-53.50) 49.00 (44.00-77.00) p<0.001 1>2*** 49.00 (45.00-57.50) 41.00 (31.25-61.25)	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00 (90.00-103.00) 98.00 (90.50-102.50) 99.00 (82.00-131.00) p=0.872 96.00 (86.00-100.00) 99.00 88.50-102.00)	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00 (82.25-96.00) 87.00 (64.00-98.00) 82.00 (75.00-96.00) p=0.241 92.00 (71.00-104.50) 88.50 (77.75-91.00)	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50 (91.00-112.75) 100.00 (90.00-118.00) 100.00 (66.00-125.00) p=0.697 95.00 (86.00-97.50)	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00 (20.00-24.00) 21.00 (17.50-22.50) 21.00 (21.00-27.00) p=0.037 23.00 (22.00-26.00) 23.00 (20.25-25.00)	1.00 (0.00-4.00) 0.00 (0.00-3.50 p=0.143 1.00 (0.00-3.00) 1.00 (0.00-3.50) 7.00 (0,00-13.00) p=0.059 4.00 (2.00-13.50) 5.00 (0.00-13.00)
Gender Marital status Education	Female (n=84) Male (n=36) p ^c 1. Single (n=84) 2. Married (n=29) 3. Widowed/divorced (n=7) p ^c p ^d 1. Primary school (n=9)	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00 (64.00-75.00) 41.00 (30.50-53.50) 49.00 (44.00-77.00) p<0.001 1>2*** 49.00 (45.00-57.50) 41.00 (31.25-61.25) 63.00	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00 (90.00-103.00) 98.00 (90.50-102.50) 99.00 (82.00-131.00) p=0.872 96.00 (86.00-100.00) 99.00 88.50-102.00)	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00 (82.25-96.00) 87.00 (64.00-98.00) 82.00 (75.00-96.00) p=0.241 92.00 (71.00-104.50) 88.50 (77.75-91.00) 83.00	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50 (91.00-112.75) 100.00 (90.00-118.00) 100.00 (66.00-125.00) p=0.697 95.00 (86.00-97.50) 95.00 (86.00-97.50)	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00 (20.00-24.00) 21.00 (17.50-22.50) 21.00 (21.00-27.00) p=0.037 23.00 (22.00-26.00) 23.00 (20.25-25.00)	1.00 (0.00-4.00) 0.00 (0.00-3.50 p=0.143 1.00 (0.00-3.00) 1.00 (0.00-3.50) 7.00 (0,00-13.00) p=0.059 4.00 (2.00-13.50) 5.00 (0.00-13.00)
Gender Marital status Education	Female (n=84) Male (n=36) pc 1. Single (n=84) 2. Married (n=29) 3. Widowed/divorced (n=7) pc pd 1. Primary school (n=9) 2. Secondary school (n=4) 3. High school (n=31)	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00 (64.00-75.00) 41.00 (30.50-53.50) 49.00 (44.00-77.00) p<0.001 1-2*** 49.00 (45.00-57.50) 41.00 (31.25-61.25) 63.00 (43.00-71.00)	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00 (90.00-103.00) 98.00 (90.50-102.50) 99.00 (82.00-131.00) p=0.872 96.00 (86.00-100.00) 99.00 88.50-102.00) 94.00 (86.00-112.00)	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00 (82.25-96.00) 87.00 (64.00-98.00) 82.00 (75.00-96.00) p=0.241 92.00 (71.00-104.50) 88.50 (77.75-91.00) 83.00 (77.00-92.00)	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50 (91.00-112.75) 100.00 (90.00-118.00) 100.00 (66.00-125.00) p=0.697 95.00 (86.00-97.50) 95.00 (86.00-97.50) 105.00 (90.50-114.50)	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00 (20.00-24.00) 21.00 (17.50-22.50) 21.00 (21.00-27.00) p=0.037 23.00 (22.00-26.00) 23.00 (20.25-25.00) 22.00 (18.00-24.00)	1.00 (0.00-4.00) 0.00 (0.00-3.50 p=0.143 1.00 (0.00-3.00) 1.00 (0,00-13.00) p=0.059 4.00 (2.00-13.50) 5.00 (0.00-13.00) 1.00 (0.00-13.00)
Gender Marital	Female (n=84) Male (n=36) p ^c 1. Single (n=84) 2. Married (n=29) 3. Widowed/divorced (n=7) p ^c p ^d 1. Primary school (n=9) 2. Secondary school (n=4)	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00 (64.00-75.00) 41.00 (30.50-53.50) 49.00 (44.00-77.00) p<0.001 1>2*** 49.00 (45.00-57.50) 41.00 (31.25-61.25) 63.00 (43.00-71.00) 69.00	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00 (90.00-103.00) 98.00 (90.50-102.50) 99.00 (82.00-131.00) p=0.872 96.00 (86.00-100.00) 99.00 88.50-102.00) 94.00 (86.00-112.00) 98.00	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00 (82.25-96.00) 87.00 (64.00-98.00) 82.00 (75.00-96.00) p=0.241 92.00 (71.00-104.50) 88.50 (77.75-91.00) 83.00 (77.00-92.00) 92.00	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50 (91.00-112.75) 100.00 (90.00-118.00) 100.00 (66.00-125.00) p=0.697 95.00 (86.00-97.50) 95.00 (86.00-97.50) 105.00 (90.50-114.50)	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00 (20.00-24.00) 21.00 (17.50-22.50) 21.00 (21.00-27.00) p=0.037 23.00 (22.00-26.00) 23.00 (20.25-25.00) 22.00 (18.00-24.00)	1.00 (0.00-4.00) 0.00 (0.00-3.50 p=0.143 1.00 (0.00-3.00) 7.00 (0.00-3.50) 7.00 (0,00-13.00) p=0.059 4.00 (2.00-13.50) 5.00 (0.00-13.00) 1.00 (0.00-7.00)
Gender Marital status Education	Female (n=84) Male (n=36) p ^c 1. Single (n=84) 2. Married (n=29) 3. Widowed/divorced (n=7) p ^c p ^d 1. Primary school (n=9) 2. Secondary school (n=4) 3. High school (n=31) 4. Associate degree (n=73)	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00 (40.00-75.00) 41.00 (30.50-53.50) 49.00 (44.00-77.00) p<0.001 1>2*** 49.00 (45.00-57.50) 41.00 (31.25-61.25) 63.00 (43.00-71.00) 69.00 (57.00-75.00)	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00 (90.00-103.00) 98.00 (90.50-102.50) 99.00 (82.00-131.00) p=0.872 96.00 (86.00-100.00) 99.00 88.50-102.00) 94.00 (86.00-112.00) 98.00 (91.00-103.00)	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00 (82.25-96.00) 87.00 (64.00-98.00) 82.00 (75.00-96.00) p=0.241 92.00 (71.00-104.50) 88.50 (77.75-91.00) 83.00 (77.00-92.00) 92.00 (81.00-98.00)	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50 (91.00-112.75) 100.00 (90.00-118.00) 100.00 (66.00-125.00) p=0.697 95.00 (86.00-97.50) 95.00 (86.00-97.50) 105.00 (90.50-114.50) 108.00 (94.00-119.00)	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00 (20.00-24.00) 21.00 (21.00-27.00) p=0.037 23.00 (22.00-26.00) 23.00 (20.25-25.00) 22.00 (18.00-24.00) 21.00 (19.00-24.00)	1.00 (0.00-4.00) 0.00 (0.00-3.50 p=0.143 1.00 (0.00-3.00) 7.00 (0,00-13.00) p=0.059 4.00 (2.00-13.50) 5.00 (0.00-13.00) 1.00 (0.00-7.00)
Gender Marital status Education	Female (n=84) Male (n=36) pc 1. Single (n=84) 2. Married (n=29) 3. Widowed/divorced (n=7) pc pd 1. Primary school (n=9) 2. Secondary school (n=4) 3. High school (n=31)	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00 (64.00-75.00) 41.00 (30.50-53.50) 49.00 (44.00-77.00) p<0.001 1>2*** 49.00 (45.00-57.50) 41.00 (31.25-61.25) 63.00 (43.00-71.00) 69.00 (57.00-75.00) 76.00	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00 (90.00-103.00) 98.00 (90.50-102.50) 99.00 (82.00-131.00) p=0.872 96.00 (86.00-100.00) 99.00 88.50-102.00) 94.00 (86.00-112.00) 98.00 (91.00-103.00 121.00	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00 (82.25-96.00) 87.00 (64.00-98.00) 82.00 (75.00-96.00) p=0.241 92.00 (71.00-104.50) 88.50 (77.75-91.00) 83.00 (77.00-92.00) 92.00 (81.00-98.00) 99.00	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50 (91.00-112.75) 100.00 (90.00-118.00) 100.00 (66.00-125.00) p=0.697 95.00 (86.00-97.50) 95.00 (86.00-97.50) 105.00 (90.50-114.50) 108.00 (94.00-119.00)	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00 (20.00-24.00) 21.00 (21.00-27.00) p=0.037 23.00 (22.00-26.00) 23.00 (20.25-25.00) 22.00 (18.00-24.00) 21.00 (19.00-24.00)	1.00 (0.00-4.00) 0.00 (0.00-3.50 p=0.143 1.00 (0.00-3.00) 1.00 (0.00-3.50) 7.00 (0,00-13.00) p=0.059 4.00 (2.00-13.50) 5.00 (0.00-13.00) 1.00 (0.00-7.00) 1.00 (0.00-2.00)
Gender Marital status Education	Female (n=84) Male (n=36) p ^c 1. Single (n=84) 2. Married (n=29) 3. Widowed/divorced (n=7) p ^c p ^d 1. Primary school (n=9) 2. Secondary school (n=4) 3. High school (n=31) 4. Associate degree (n=73) 5. Bachelor's degree (n=3)	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00 (64.00-75.00) 41.00 (30.50-53.50) 49.00 (44.00-77.00) p<0.001 1>2*** 49.00 (45.00-57.50) 41.00 (31.25-61.25) 63.00 (43.00-71.00) 69.00 (57.00-75.00) 76.00 (66.00)	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00 (90.00-103.00) 98.00 (90.50-102.50) 99.00 (82.00-131.00) p=0.872 96.00 (86.00-100.00) 99.00 88.50-102.00) 94.00 (86.00-112.00) 98.00 (91.00-103.00 121.00 (128.00-120.00)	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00 (82.25-96.00) 87.00 (64.00-98.00) 82.00 (75.00-96.00) p=0.241 92.00 (71.00-104.50) 88.50 (77.75-91.00) 83.00 (77.00-92.00) 92.00 (81.00-98.00) 99.00 (87.00)	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50 (91.00-112.75) 100.00 (90.00-118.00) 100.00 (66.00-125.00) p=0.697 95.00 (86.00-97.50) 95.00 (86.00-97.50) 105.00 (90.50-114.50) 108.00 (94.00-119.00) 103.00 (83.00)	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00 (20.00-24.00) 21.00 (17.50-22.50) 21.00 (21.00-27.00) p=0.037 23.00 (22.00-26.00) 23.00 (20.25-25.00) 22.00 (18.00-24.00) 21.00 (19.00-24.00) 19.00 (15.00)	1.00 (0.00-4.00) 0.00 (0.00-3.50 p=0.143 1.00 (0.00-3.00) 7.00 (0,00-13.00) p=0.059 4.00 (2.00-13.50) 5.00 (0.00-13.00) 1.00 (0.00-7.00) 1.00 (0.00-2.00) 0.00 (0.00)
Gender Marital status Education	Female (n=84) Male (n=36) pc 1. Single (n=84) 2. Married (n=29) 3. Widowed/divorced (n=7) pc pd 1. Primary school (n=9) 2. Secondary school (n=4) 3. High school (n=31) 4. Associate degree (n=73) 5. Bachelor's degree (n=3) pc	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00 (64.00-75.00) 41.00 (30.50-53.50) 49.00 (44.00-77.00) p<0.001 1>2*** 49.00 (45.00-57.50) 41.00 (31.25-61.25) 63.00 (43.00-71.00) 69.00 (57.00-75.00) 76.00	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00 (90.00-103.00) 98.00 (90.50-102.50) 99.00 (82.00-131.00) p=0.872 96.00 (86.00-100.00) 99.00 88.50-102.00) 94.00 (86.00-112.00) 98.00 (91.00-103.00 121.00	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00 (82.25-96.00) 87.00 (64.00-98.00) 82.00 (75.00-96.00) p=0.241 92.00 (71.00-104.50) 88.50 (77.75-91.00) 83.00 (77.00-92.00) 92.00 (81.00-98.00) 99.00	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50 (91.00-112.75) 100.00 (90.00-118.00) 100.00 (66.00-125.00) p=0.697 95.00 (86.00-97.50) 95.00 (86.00-97.50) 105.00 (90.50-114.50) 108.00 (94.00-119.00)	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00 (20.00-24.00) 21.00 (21.00-27.00) p=0.037 23.00 (22.00-26.00) 23.00 (20.25-25.00) 22.00 (18.00-24.00) 21.00 (19.00-24.00)	1.00 (0.00-4.00) 0.00 (0.00-3.50) p=0.143 1.00 (0.00-3.00) 1.00 (0.00-13.00) p=0.059 4.00 (2.00-13.50) 5.00 (0.00-13.00) 1.00 (0.00-7.00) 1.00 (0.00-7.00) 0.00-2.00) 0.00 (0.00) p=0.024
Marital status Education Level	Female (n=84) Male (n=36) pc 1. Single (n=84) 2. Married (n=29) 3. Widowed/divorced (n=7) pc pd 1. Primary school (n=9) 2. Secondary school (n=4) 3. High school (n=31) 4. Associate degree (n=73) 5. Bachelor's degree (n=3) pc pd	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00 (64.00-75.00) 41.00 (30.50-53.50) 49.00 (44.00-77.00) p<0.001 1>2*** 49.00 (45.00-57.50) 41.00 (31.25-61.25) 63.00 (43.00-71.00) 69.00 (57.00-75.00) 76.00 (66.00) p=0.003	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00 (90.00-103.00) 98.00 (90.50-102.50) 99.00 (82.00-131.00) p=0.872 96.00 (86.00-100.00) 99.00 88.50-102.00) 94.00 (86.00-112.00) 98.00 (91.00-103.00 121.00 (128.00-120.00) p=0.063	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00 (82.25-96.00) 87.00 (64.00-98.00) 82.00 (75.00-96.00) p=0.241 92.00 (71.00-104.50) 88.50 (77.75-91.00) 83.00 (77.00-92.00) 92.00 (81.00-98.00) 99.00 (87.00) p=0.085	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50 (91.00-112.75) 100.00 (90.00-118.00) 100.00 (66.00-125.00) p=0.697 95.00 (86.00-97.50) 95.00 (86.00-97.50) 105.00 (90.50-114.50) 108.00 (94.00-119.00) 103.00 (83.00) p=0.019	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00 (20.00-24.00) 21.00 (21.00-27.00) p=0.037 23.00 (22.00-26.00) 23.00 (20.25-25.00) 22.00 (18.00-24.00) 19.00 (19.00-24.00) 19.00 (15.00) p=0.083	1.00 (0.00-4.00) 0.00 (0.00-3.50) p=0.143 1.00 (0.00-3.00) 1.00 (0.00-13.00) p=0.059 4.00 (2.00-13.50) 5.00 (0.00-13.00) 1.00 (0.00-7.00) 1.00 (0.00-2.00) 0.00 (0.00) p=0.024 1>4*
Gender Marital status Education Level	Female (n=84) Male (n=36) pc 1. Single (n=84) 2. Married (n=29) 3. Widowed/divorced (n=7) pc pd 1. Primary school (n=9) 2. Secondary school (n=4) 3. High school (n=31) 4. Associate degree (n=73) 5. Bachelor's degree (n=3) pc pd 1. Income less than expenses	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00 (64.00-75.00) 41.00 (30.50-53.50) 49.00 (44.00-77.00) p<0.001 1>2*** 49.00 (45.00-57.50) 41.00 (31.25-61.25) 63.00 (43.00-71.00) 69.00 (57.00-75.00) 76.00 (66.00) p=0.003	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00 (90.00-103.00) 98.00 (90.50-102.50) 99.00 (82.00-131.00) p=0.872 96.00 (86.00-100.00) 99.00 88.50-102.00) 94.00 (86.00-112.00) 98.00 (91.00-103.00 121.00 (128.00-120.00) p=0.063	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00 (82.25-96.00) 87.00 (64.00-98.00) 82.00 (75.00-96.00) p=0.241 92.00 (71.00-104.50) 88.50 (77.75-91.00) 83.00 (77.00-92.00) 92.00 (81.00-98.00) 99.00 (87.00) p=0.085	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50 (91.00-112.75) 100.00 (90.00-118.00) 100.00 (66.00-125.00) p=0.697 95.00 (86.00-97.50) 105.00 (90.50-114.50) 108.00 (94.00-119.00) 103.00 (83.00) p=0.019	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00 (20.00-24.00) 21.00 (17.50-22.50) 21.00 (21.00-27.00) p=0.037 23.00 (22.00-26.00) 23.00 (20.25-25.00) 21.00 (18.00-24.00) 19.00 (15.00) p=0.083 21.00	1.00 (0.00-4.00) 0.00 (0.00-3.50) p=0.143 1.00 (0.00-3.00) 7.00 (0,00-13.00) p=0.059 4.00 (2.00-13.50) 5.00 (0.00-7.00) 1.00 (0.00-7.00) 1.00 (0.00-2.00) 0.00 p=0.024 1> 4*
Marital status Education Level	Female (n=84) Male (n=36) pc 1. Single (n=84) 2. Married (n=29) 3. Widowed/divorced (n=7) pc pd 1. Primary school (n=9) 2. Secondary school (n=4) 3. High school (n=31) 4. Associate degree (n=73) 5. Bachelor's degree (n=3) pc pd 1. Income less than expenses (n=32)	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00 (64.00-75.00) 41.00 (30.50-53.50) 49.00 (44.00-77.00) p<0.001 1>2*** 49.00 (45.00-57.50) 41.00 (31.25-61.25) 63.00 (43.00-71.00) 69.00 (57.00-75.00) 76.00 (66.00) p=0.003	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00 (90.00-103.00) 98.00 (90.50-102.50) 99.00 (82.00-131.00) p=0.872 96.00 (86.00-100.00) 99.00 88.50-102.00) 94.00 (86.00-112.00) 98.00 (91.00-103.00 121.00 (128.00-120.00) p=0.063	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00 (82.25-96.00) 87.00 (64.00-98.00) 82.00 (75.00-96.00) p=0.241 92.00 (71.00-104.50) 88.50 (77.75-91.00) 83.00 (77.00-92.00) 92.00 (81.00-98.00) 99.00 (87.00) p=0.085	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50 (91.00-112.75) 100.00 (90.00-118.00) 100.00 (66.00-125.00) p=0.697 95.00 (86.00-97.50) 95.00 (86.00-97.50) 105.00 (90.50-114.50) 108.00 (94.00-119.00) 103.00 (83.00) p=0.019	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00 (20.00-24.00) 21.00 (17.50-22.50) 21.00 (21.00-27.00) p=0.037 23.00 (22.00-26.00) 23.00 (20.25-25.00) 21.00 (18.00-24.00) 21.00 (19.00-24.00) 19.00 (15.00) p=0.083 21.00 (20.00-23.75)	1.00 (0.00-4.00) 0.00 (0.00-3.50) p=0.143 1.00 (0.00-3.00) 1.00 (0.00-3.50) 7.00 (0,00-13.00) p=0.059 4.00 (2.00-13.50) 5.00 (0.00-13.00) 1.00 (0.00-7.00) 1.00 (0.00-2.00) 0.00 0.00) p=0.024 1> 4* 2.00 (0.00-7.00)
Gender Marital status Education Level	Female (n=84) Male (n=36) pc 1. Single (n=84) 2. Married (n=29) 3. Widowed/divorced (n=7) pc pd 1. Primary school (n=9) 2. Secondary school (n=4) 3. High school (n=31) 4. Associate degree (n=73) 5. Bachelor's degree (n=3) pc pd 1. Income less than expenses (n=32) 2. Income equal to expenses	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00 (64.00-75.00) 41.00 (30.50-53.50) 49.00 (44.00-77.00) p<0.001 1>2*** 49.00 (45.00-57.50) 41.00 (31.25-61.25) 63.00 (43.00-71.00) 69.00 (57.00-75.00) 76.00 (66.00) p=0.003 72.00 (60.50-78.00) 64.00	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00 (90.00-103.00) 98.00 (90.50-102.50) 99.00 (82.00-131.00) p=0.872 96.00 (86.00-100.00) 99.00 88.50-102.00) 94.00 (86.00-112.00) 98.00 (91.00-103.00 121.00 (128.00-120.00) p=0.063 98.00 (91.00-107.00) 96.00	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00 (82.25-96.00) 87.00 (64.00-98.00) 82.00 (75.00-96.00) p=0.241 92.00 (71.00-104.50) 88.50 (77.75-91.00) 83.00 (77.00-92.00) 92.00 (81.00-98.00) 99.00 (87.00) p=0.085 92.00 (90.00-98.00) 87.50	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50 (91.00-112.75) 100.00 (90.00-118.00) 100.00 (66.00-125.00) p=0.697 95.00 (86.00-97.50) 95.00 (86.00-97.50) 105.00 (90.50-114.50) 108.00 (94.00-119.00) 103.00 (83.00) p=0.019	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00 (20.00-24.00) 21.00 (21.00-27.00) p=0.037 23.00 (22.00-26.00) 23.00 (20.25-25.00) 22.00 (18.00-24.00) 21.00 (19.00-24.00) 19.00 (15.00) p=0.083 21.00 (20.00-23.75) 22.00	1.00 (0.00-4.00) 0.00 (0.00-3.50) p=0.143 1.00 (0.00-3.00) 1.00 (0.00-3.50) 7.00 (0,00-13.00) p=0.059 4.00 (2.00-13.50) 5.00 (0.00-13.00) 1.00 (0.00-2.00) 0.00 (0.00-2.00) 0.00 p=0.024 1> 4* 2.00 (0.00-7.00) 0.50
Gender Marital status Education Level	Female (n=84) Male (n=36) pc 1. Single (n=84) 2. Married (n=29) 3. Widowed/divorced (n=7) pc pd 1. Primary school (n=9) 2. Secondary school (n=4) 3. High school (n=31) 4. Associate degree (n=73) 5. Bachelor's degree (n=3) pc pd 1. Income less than expenses (n=32) 2. Income equal to expenses (n=68)	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00 (64.00-75.00) 41.00 (30.50-53.50) 49.00 (44.00-77.00) p<0.001 1>2*** 49.00 (45.00-57.50) 41.00 (31.25-61.25) 63.00 (43.00-71.00) 69.00 (57.00-75.00) 76.00 (66.00) p=0.003 72.00 (60.50-78.00) 64.00 (42.50-71.00)	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00 (90.00-103.00) 98.00 (90.50-102.50) 99.00 (82.00-131.00) p=0.872 96.00 (86.00-100.00) 99.00 (86.00-102.00) 99.00 (86.00-112.00) 94.00 (86.00-112.00) 98.00 (91.00-103.00 121.00 (128.00-120.00) p=0.063 98.00 (91.00-107.00) 96.00 (89.25-102.00)	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00 (82.25-96.00) 87.00 (64.00-98.00) 82.00 (75.00-96.00) p=0.241 92.00 (71.00-104.50) 88.50 (77.75-91.00) 83.00 (77.00-92.00) 92.00 (81.00-98.00) 99.00 (87.00) p=0.085 92.00 (90.00-98.00) 87.50 (78.00-96.75)	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50 (91.00-112.75) 100.00 (90.00-118.00) 100.00 (66.00-125.00) p=0.697 95.00 (86.00-97.50) 95.00 (86.00-97.50) 105.00 (90.50-114.50) 108.00 (94.00-119.00) 103.00 (83.00) p=0.019 94.50 (84,25-109.00) 107.00 (94.00-119.00)	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00 (20.00-24.00) 21.00 (21.00-27.00) p=0.037 23.00 (22.00-26.00) 23.00 (20.02-25.00) 21.00 (18.00-24.00) 21.00 (19.00-24.00) 21.00 (19.00-24.00) 21.00 (19.00-24.00) 21.00 (19.00-24.00) 19.00 (15.00) p=0.083	1.00 (0.00-4.00) 0.00 (0.00-3.50 p=0.143 1.00 (0.00-3.00) 1.00 (0.00-3.50) 7.00 (0,00-13.00) p=0.059 4.00 (2.00-13.50) 5.00 (0.00-13.00) 1.00 (0.00-2.00) 0.00 (0.00) p=0.024 1> 4* 2.00 (0.00-7.00) 0.50 (0.00-3.00)
Gender Marital status Education Level	Female (n=84) Male (n=36) pc 1. Single (n=84) 2. Married (n=29) 3. Widowed/divorced (n=7) pc pd 1. Primary school (n=9) 2. Secondary school (n=4) 3. High school (n=31) 4. Associate degree (n=73) 5. Bachelor's degree (n=3) pc pd 1. Income less than expenses (n=32) 2. Income equal to expenses (n=68) 3. Income more than ex-	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00 (40.00-75.00) 41.00 (30.50-53.50) 49.00 (44.00-77.00) p<0.001 1>2*** 49.00 (45.00-57.50) 41.00 (31.25-61.25) 63.00 (43.00-71.00) 69.00 (57.00-75.00) 76.00 (60.00) p=0.003 72.00 (60.50-78.00) 64.00 (42.50-71.00) 67.50	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00 (90.00-103.00) 98.00 (90.50-102.50) 99.00 (82.00-131.00) p=0.872 96.00 (86.00-100.00) 99.00 (86.00-102.00) 94.00 (86.00-112.00) 98.00 (91.00-103.00 121.00 (128.00-120.00) p=0.063	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00 (82.25-96.00) 87.00 (64.00-98.00) 82.00 (75.00-96.00) p=0.241 92.00 (71.00-104.50) 88.50 (77.75-91.00) 83.00 (77.00-92.00) 92.00 (81.00-98.00) 99.00 (87.00) p=0.085	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50 (91.00-112.75) 100.00 (90.00-118.00) 100.00 (66.00-125.00) p=0.697 95.00 (86.00-97.50) 95.00 (86.00-97.50) 105.00 (90.50-114.50) 108.00 (94.00-119.00) 103.00 (83.00) p=0.019	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00 (20.00-24.00) 21.00 (21.00-27.00) p=0.037 23.00 (22.00-26.00) 23.00 (20.25-25.00) 22.00 (18.00-24.00) 21.00 (19.00-24.00) 21.00 (19.00-24.00) 21.00 (19.00-24.00) 19.00 (15.00) p=0.083	1.00 (0.00-4.00) 0.00 (0.00-3.50 p=0.143 1.00 (0.00-3.00) 7.00 (0,00-13.00) p=0.059 4.00 (2.00-13.50) 5.00 (0.00-13.00) 1.00 (0.00-7.00) 1.00 (0.00-2.00) 0.00 1.24 1.24* 2.00 (0.00-7.00) 0.50 (0.00-7.00)
Gender Marital status Education Level	Female (n=84) Male (n=36) pc 1. Single (n=84) 2. Married (n=29) 3. Widowed/divorced (n=7) pc pd 1. Primary school (n=9) 2. Secondary school (n=4) 3. High school (n=31) 4. Associate degree (n=73) 5. Bachelor's degree (n=3) pc pd 1. Income less than expenses (n=32) 2. Income equal to expenses (n=68)	66.00 (4600-75.00) 69.00 (47.50-72.75) p=0.311 69.00 (64.00-75.00) 41.00 (30.50-53.50) 49.00 (44.00-77.00) p<0.001 1>2*** 49.00 (45.00-57.50) 41.00 (31.25-61.25) 63.00 (43.00-71.00) 69.00 (57.00-75.00) 76.00 (66.00) p=0.003 72.00 (60.50-78.00) 64.00 (42.50-71.00)	96.50 (90.00-103.00) 99.50 90.25-103.00) p=0.542 97.00 (90.00-103.00) 98.00 (90.50-102.50) 99.00 (82.00-131.00) p=0.872 96.00 (86.00-100.00) 99.00 (86.00-102.00) 99.00 (86.00-112.00) 94.00 (86.00-112.00) 98.00 (91.00-103.00 121.00 (128.00-120.00) p=0.063 98.00 (91.00-107.00) 96.00 (89.25-102.00)	91.50 (82.00-98.00) 88,00 (75.00-94.75) p=0.108 90.00 (82.25-96.00) 87.00 (64.00-98.00) 82.00 (75.00-96.00) p=0.241 92.00 (71.00-104.50) 88.50 (77.75-91.00) 83.00 (77.00-92.00) 92.00 (81.00-98.00) 99.00 (87.00) p=0.085 92.00 (90.00-98.00) 87.50 (78.00-96.75)	90.00 (90.00-90.00) 103.00 (87.00-117.00) p=0.561 103.50 (91.00-112.75) 100.00 (90.00-118.00) 100.00 (66.00-125.00) p=0.697 95.00 (86.00-97.50) 95.00 (86.00-97.50) 105.00 (90.50-114.50) 108.00 (94.00-119.00) 103.00 (83.00) p=0.019 94.50 (84,25-109.00) 107.00 (94.00-119.00)	21.00 (19.00-24.00) 22.00 (19.50-24.00) p=0.230 22.00 (20.00-24.00) 21.00 (21.00-27.00) p=0.037 23.00 (22.00-26.00) 23.00 (20.02-25.00) 21.00 (18.00-24.00) 21.00 (19.00-24.00) 21.00 (19.00-24.00) 21.00 (19.00-24.00) 21.00 (19.00-24.00) 19.00 (15.00) p=0.083	1.00 (0.00-4.00) 0.00 (0.00-3.50 p=0.143 1.00 (0.00-3.00) 1.00 (0.00-3.50) 7.00 (0,00-13.00) p=0.059 4.00 (2.00-13.50) 5.00 (0.00-13.00) 1.00 (0.00-2.00) 0.00 (0.00) p=0.024 1> 4* 2.00 (0.00-7.00) 0.50 (0.00-3.00)

SMG: Social Media Group; ASG: Aesthetic Surgery Group
PAS: Post Aesthetic Surgery PAS: Post Aesthetic Surgery, BPS: Body
Perception Scale; BDI: Beck Depression Inventory; BIQLI: the Body Image Quality of Life Inventory ACSS: Acceptance of Aesthetic Surgery
Scale; RSES: the Rosenberg Self-Esteem Scale; SMAS-ADD: the Social Media Addiction Scale-Adult Form

The comparison of the groups based on socio-demographic characteristics and aesthetic surgery information is presented in Table 1.

In the SMG, single participants had significantly higher median scores for SMAS-AAD (p<0.001) and RSES (p=0.011) than the married participants. In the ASG, single participants also had higher median SMAS-AAD scores than married participants (p<0.001).

RSES scores (p=0.037). The median BDI score was higher among primary school graduates than associate degree graduates (p=0.014). Moreover, participants with income less than expenses had higher median SMAS-AAD scores than those with income equal to expenses (p=0.001) and those with income more than expenses (p=0.048). A significant difference was also found in the median post-surgery ACSS scores according to income status (p=0.031, Table 2).

As for the scores between the SMG and ASG, the post-surgery median scores for SMAS-AAD, BIQLI, ACSS, and BPS were significantly higher in the ASG than in the SMG (p<0.001), while the median scores for RSES and BDI were significantly lower (p<0.001).

Table 3. Comparisons of pre and post aesthetic surgery median scale scores between SMG and ASG (n=240) (median (25.-75th percentile))

Scales and subscales	SMG	ASG (PAS)		ASG		
				PrAS	PAS	•
	Median	Median	p ^a	Median	Median	p ^e
	(Q1-Q3)	(Q1-Q3)		(Q1-Q3)	(Q1-Q3)	
SMAS-AAD	54.00	69.50	p<0.001	63.00	69.50	p<0.001
	(42.00-63.00)	(46.00-73.75)		(46.00-73.00)	(46.00-73.75)	
BIQLI	85.00	97.00	p<0.001	76.00	97.00	p<0.001
	(62.00-108.75)	(90.00-103.00)		(71.00-89.00)	(90.00-103.00)	
ACSS	63.00	90.00	p<0.001	83.00	90.00	p<0.001
	(49.00-76.00)	(80.00-97.00)		(69.25-90.00)	(80.00-97.00)	
BPS	89.00	103.00	p<0.001	77.00	103.00	p<0.001
	(79.00-99.00)	(90.00-114.75)	_	(76.00-88.00)	(90.00-114.75)	_
RSES	26.00	24.00	p<0.001	22.00	24.00	p<0.001
	(20.25-29.00)	(22.00-26.00)		(19.00-24.00)	(22.00-26.00)	
BDI	32.00	1.00	p<0.001	4.00	1.00	p<0.001
	(27.25-40.00)	(0.00-3.75)		(2.00-7.00)	(00.00-3.75)	=

SMG: Social Media Group; ASG: Aesthetic Surgery Group
PRAS: Pre Aesthetic Surgery; PAS: Post Aesthetic Surgery
BPS: Body Perception Scale; BDI: Beck Depression Inventory

BIQLI: the Body Image Quality of Life Inventory ACSS: Acceptance of Aesthetic Surgery Scale

RSES: the Rosenberg Self-Esteem Scale SMAS-ADD: the Social Media Addiction Scale-Adult Form

a: Mann-Whitney U test; e: Wilcoxon Signed Ranks Test

Bold faced values are shown as p < 0.05.

Additionally, in the ASG, significant relationships were observed between educational status and the median scores of SMAS-AAD (p=0.003), BPS (p=0.019), and BDI (p=0.024) related to aesthetic surgery. A significant difference was also found between marital status and post-surgery

Furthermore, within the ASG, comparisons of pre- and post-surgery scores showed that post-surgery median scores for SMAS-AAD, BIQLI, ACSS, BPS, and RSES were significantly higher (p<0.001), while the median BDI score was significantly lower (p<0.001, Table 3).

In the ASG, the "social" and "consider" sub-dimensions of the ACSS, along with the "effect of body image on QoL" from the BIQLI, were positively associated with ACSS scores. In other words, as the scores for "social," "consider," and the impact of body image on QoL increased, the acceptance of aesthetic surgery also increased (Table 4).

a: Mann-Whitney U Test c: Kruskal-Wallis Test;

d: Multiple Comparison Test, Bold faced values are shown as

^{*} p < 0.05, **p < 0.01, ***p < 0.001

Table 4. Regression analysis for the scores of ACSS and other scales in ASG and SMG

		C	oefficients ^g			
	Model	Unstandard	Unstandardized Coefficients		t	Sig.
	Wodel	В	Std. Error	ficients Beta		
SMG	1 (Constant)	13,198	4,066		3,246	0.002
(n=120)	Self-esteem	-,373	,198	-,174	-1,884	0.062
	Daily life	,243	,254	,095	,958	0.340
	Interaction with opposite sex	-,306	,385	-,090	-,794	0.429
	Intrapersonal	2,477	,122	,895	20,243	p<0.001
	-	C	oefficients ^h			
	Model	Unstandard	lized Coefficients	Standardized Coef- ficients	t	Sig.
		В	Std. Error	Beta		
ASG	1 (Constant)	4,939	3,049		1,620	0.108
(PAS)	Daily life	-,035	,139	-,009	-,251	0.802
(n=120)	Interaction with opposite sex	-,231	,224	-,052	-1,031	0.305
	Behavior/Attitude	-,174	,157	-,036	-1,114	0.268
	Social	1,112	,052	,531	21,226	p<0.001
	Consider	1,458	,065	,568	22,593	p<0.001
	BIQLI	,192	,083	,165	2,326	0.022

SMG: Social Media Group; ASG: Aesthetic Surgery Group

PAS: Post Aesthetic Surgery

ACSS: Acceptance of Aesthetic Surgery Scale

BIQLI: the Body Image Quality of Life Inventory

8: Dependent Variable: ACSS; h: Dependent Variable: ACSS (PAS)

Bold faced values are shown as p< 0.05.

Discussion

In the present study, social media use, attitudes towards aesthetic surgery, and psychosocial factors, including self-esteem, body perception, depression, and quality of life were compared between social media users and individuals who had undergone aesthetic surgery. The main findings are presented in the following sections.

Comparison of scale scores between groups according to certain demographic characteristics

Social media platforms, where users can present their lives as they wish, may encourage social comparisons that impact self-esteem (Lisa et al., 2025). Research indicates that SMA and self-esteem are influenced by certain sociodemographic factors, with marital status playing a particularly significant role (Kabar, 2024; Kaya, 2025; Özer & Güzel, 2023; Tecimer & Balcı, 2023). In the studies by Özer and Güzel (2023) and Kabar (2024), single participants had significantly higher levels of social media/internet addiction than married individuals. Kaya (2025) reported that single women who use social media placed greater importance on how they appear on these platforms than married women. In the study by Tecimer and Balcı (2023), internet and social media addiction levels were higher among single individuals, whereas their self-esteem levels were lower than those of married participants. In the present study, single participants in both the SMG and the ASG demonstrated higher levels of social media addiction and self-esteem, consistent with the findings of Özer and Güzel (2023), Kabar (2024), and Kaya (2025). Additionally, Valkenburg et al. (2006) noted that individuals with higher self-esteem tend to be more active on social media. Based on these findings, it seems that single individuals tend to spend more time on social media, and the positive feedback they receive from these platforms may further boost their self-esteem. However, this increased engagement may also contribute to higher social media addiction and potential psychosocial risks. Therefore, it is important to closely examine how social media use affects both self-esteem and addiction levels, particularly among single individu-

One of the important sociodemographic factors affecting an individual's self-esteem is their education level. The literature indicates that higher education levels may be associated with increased self-esteem, which in the long term can contribute to the development of individuals with high self-esteem (Öner Altıok et al., 2010; Saygılı et al., 2015). For example, in a study conducted by Saygılı et al. (2015) with students, it was found that self-esteem scores increased in parallel with higher levels of education. Similarly, Öner Altıok et al. (2010) reported that students enrolled in faculties or four-year programs had higher self-esteem levels than those attending two-year vocational colleges. In

contrast, in the present study, it was observed that associate degree graduates in the SMG had higher levels of self-esteem than postgraduate graduates. Although this finding contradicts previous literature, it suggests that the relationship between education level and self-esteem may be influenced not only by individual factors but also by temporal and environmental factors (Kaya, 2021; Tecimer & Balcı, 2023; Ozer & Güzel, 2023). In particular, the widespread use of social media today, variations in platform usage according to education level, and responses to social feedback may have reshaped its effects on self-esteem. These results indicate that self-esteem research should consider not only sociodemographic characteristics but also social, environmental, and cultural contexts.

This study examined the relationship between educational level and social media addiction, body satisfaction, and depression in individuals undergoing aesthetic surgery, and the findings were generally consistent with the literature. Higher educational levels were associated with increased social media addiction and body satisfaction, as well as lower levels of depression, suggesting that education plays a significant role in psychosocial variables. In this study, associate degree graduates had higher levels of social media addiction than other educational groups, supporting previous findings that "social media use increases with educational level" (Gökkaya et al., 2020; Özer & Güzel, 2023). This indicates that as education level rises, individuals may be more exposed to appearance-focused content, which could influence their motivation to undergo aesthetic surgery. However, education alone may not be protective against the effects of social media; thus, mindful usage is important. Regarding body satisfaction, educational level can significantly influence individuals' perceptions (Austin et al., 2009; Cheung et al., 2011). The literature shows a complex relationship: some studies report a positive association between higher education and body image (Gören Yılmaz, 2016; Rosenqvist et al., 2024), while others report a negative association (Ashgar, 2023; Austin et al., 2009; Gökkaya et al., 2020). Our findings suggest that more educated individuals can evaluate their body image more consciously and make aesthetic decisions on a more rational basis. Concerning depression, the literature indicates that higher education is generally associated with lower risk and severity of depression (Cohen et al., 2020; Magakwe et al., 2025; Xiong et al., 2024). In our study, primary school graduates had significantly higher levels of depression than associate degree graduates, suggesting that increased education, along with better problem-solving skills, health literacy, and access to psychosocial resources, may have a protective effect against depressive symptoms. In conclusion, educational level is an influential factor in social media addiction, body satisfaction, and depression among individuals undergoing aesthetic surgery. These findings highlight the importance of considering educational level in preoperative psychosocial assessments.

Aesthetic surgery, which was previously accessible primarily to high-income groups, is now sought by individuals across different income levels (Gürler, 2018; Okumus, 2021). The literature indicates that the inclination toward aesthetic surgery varies according to income level; some studies highlight the middle-income group (Alharethy, 2017), while others emphasize high-income individuals (Ahmadi et al., 2022; Bidkhori et al., 2021), and Okgün-Alcan and Çetin (2022) found no significant effect of economic status, suggesting that income level may be related not only to cost but also to self-perception, social interactions, and social media experiences. The relationship between income level and social media addiction also shows varied findings. Özer and Güzel (2023) reported that lower-income groups exhibit higher levels of social media addiction; Stockdale and Coyne (2020) indicated that individuals experiencing financial stress use social media as a coping mechanism, which may increase the risk of problematic use. Chen et al. (2025) and Sun et al. (2021) emphasized that lower-income individuals use social media more intensively as an escape, for entertainment, and for social comparison. Consistent with this literature (Chen et al., 2025; Özer & Güzel, 2023; Stockdale & Coyne, 2020; Sun et al., 2021), the present study found that participants whose income was less than their expenses exhibited higher social media addiction and more positive attitudes toward cosmetic surgery than other

groups. These findings suggest that economic stress and daily life challenges may lead lower-income individuals to use social media more frequently, and exposure to idealized body images and individuals who have undergone aesthetic procedures may reinforce positive attitudes toward cosmetic surgery (Fardouly & Vartanian, 2016; Verduyn et al., 2020). Therefore, it is recommended to strengthen media literacy programs for lower-income groups, support body-positive content on social media, and expand awareness initiatives regarding the psychosocial aspects of aesthetic surgery. Additionally, healthcare professionals should comprehensively assess social media influence, economic vulnerability, and psychosocial risks among individuals seeking aesthetic procedures.

Comparison of scale scores between SMG and ASG

Although studies directly comparing the psychosocial characteristics of individuals who have undergone cosmetic surgery with those who have not are limited, the available literature indicates that variables such as self-esteem, body image, quality of life, social media addiction, anxiety, and depression may be influenced differently in individuals who undergo cosmetic procedures. (Di Mattei et al., 2015; Heidarzadeh et al., 2019; Spadoni-Pacheco & Carvalho, 2018). While the findings are not entirely consistent, there is a growing research interest in the potential effects of cosmetic surgery on individuals' psychosocial well-being. For example, Heidarzadeh et al. (2019) found no significant differences in self-esteem, body image, or psychological problems between those who had undergone cosmetic surgery and those who had not. Spadoni-Pacheco and Carvalho (2018) reported that older women who underwent cosmetic surgery did not show significant improvements in self-esteem or quality of life compared to those who did not; however, improvements in social interactions and reductions in anxiety and depression were observed. Di Mattei et al. (2015) found that individuals not interested in cosmetic surgery were less satisfied with their body image than

those who were interested. Öztürk et al. (2020) reported higher social media addiction scores in individuals who had undergone rhinoplasty than in a non-surgical control group. Our study findings align with those of Spadoni-Pacheco and Carvalho (2018), Di Mattei et al. (2015), and Oztürk et al. (2020). In this study, social media addiction, the impact of body image on quality of life, positive attitudes toward cosmetic surgery, and body satisfaction were higher in the ASG, while self-esteem and depression levels were lower. These results suggest that individuals who undergo cosmetic surgery may exhibit a more positive psychosocial profile. Improving self-esteem has been identified in the literature as one of the main motivations for seeking cosmetic surgery (Spadoni-Pacheco & Carvalho, 2018).

In our study, the lower self-esteem scores in the ASG than the SMG suggest that individuals may be more vulnerable in terms of self-esteem prior to surgery. However, the observed increase in self-esteem following cosmetic surgery supports the positive effect of surgery in this domain. This finding is consistent with numerous studies indicating that cosmetic surgery can enhance self-esteem (Borujeni et al., 2020; Kazeminia et al., 2023; Spadoni-Pacheco & Carvalho, 2018).

Social media use has emerged as an important factor shaping attitudes toward cosmetic surgery (Hermans et al., 2022; Okgün-Alcan & Çetin, 2022). The increase in cosmetic surgery-related content on social media has recently contributed to a rise in demand for these procedures (Arab et al., 2019; Okumus, 2021). Individuals who undergo surgery tend to have higher levels of social media addiction (Gürkan & Çakmak, 2025; Kaya, 2025; Okumus, 2021; Özer & Güzel, 2023; Reshadi Mohammadi et al., 2023; Sorice et al., 2017; Türk & Bayrakcı, 2019). For example, Sorice et al. (2017) reported that patients widely use social media when selecting a surgeon, and Özer and Güzel (2023) found positive associations between social appearance anxiety, social media addiction, and the perceived likelihood of undergoing cosmetic procedures. In our study, the ASG also exhibited higher social media addiction scores, with the group classified within the "highly addicted" category (Table 3). Furthermore, 45% of individuals in the ASG were found to

follow social media accounts of physicians or clinics related to cosmetic surgery (Table 1). Taken together, these findings suggest that the increase in visual content and information sharing about cosmetic surgery on social media may influence individuals' aesthetic perceptions and body image awareness, potentially increasing the time spent on social media and elevating addiction levels. Therefore, social media use may play a significant mediating role both in the inclination toward cosmetic surgery and in psychosocial outcomes. This underscores the importance of considering the effects of social media use in cosmetic surgery planning and in the postoperative period.

Comparison of preoperative and postoperative scale scores before and after aesthetic surgery

The literature has widely demonstrated that aesthetic surgery has positive effects on body image, psychological well-being, and social functioning (Asimakopoulou et al., 2020; Borujeni et al., 2020; Demirbaş, 2019; Karaca & Beydağ, Kazeminia et al., 2023; Spadoni-Pacheco & Carvalho, 2018). For example, Karaca and Beydağ (2021) reported that women who underwent cosmetic surgery experienced high levels of satisfaction with their body image, while Spadoni-Pacheco and Carvalho (2018) found that it improved quality of life and reduced anxiety and depression levels. Similarly, Katamanin et al. (2024) and Borujeni et al. (2020) showed that surgery positively affects body image, self-esteem, and overall psychosocial well-being. Consistent with the literature, our study found that following aesthetic surgery, body satisfaction, self-esteem, and quality of life increased, whereas depression levels decreased, confirming the beneficial psychosocial effects of the procedure. However, the observed increase in social media addiction scores after surgery is noteworthy. Previous studies have indicated that increased exposure to social media among individuals who undergo cosmetic surgery may be associated with heightened interest in physical appearance (Kaya, 2025; Türk & Bayrakcı, 2019). These findings suggest that while aesthetic surgery supports psychosocial well-being and quality of life, it may also influence individuals' digital behaviors,

highlighting the need for a more comprehensive evaluation of social media use in the postoperative period.

Factors affecting aesthetic surgery acceptance in the groups

The expected outcome of aesthetic surgery is not only an improvement in physical appearance but also an enhancement in the psychosocial aspects of an individual's life (Borujeni et al., 2020; Karaca et al., 2017). Postoperative expectations often include increased psychological well-being, self-confidence, and quality of life (Karaca et al., 2017). Various studies have shown that aesthetic surgery can improve quality of life (Asimakopoulou et al., 2020; Demirbaş, 2019; Kazeminia et al., 2023; Spadoni-Pacheco & Carvalho, 2018). Additionally, some research emphasizes that quality of life serves as an important motivating factor in seeking aesthetic interventions (Demirbaş, 2019). In line with the literature, our study found that in the ASG, as the positive impact of body image on quality of life increased, acceptance of cosmetic surgery also rose, indicating that aesthetic surgery not only improves physical appearance but also supports individuals' overall quality of life. Specifically, the postoperative enhancement of quality of life related to body image increases individuals' interest in and acceptance of cosmetic surgery. This finding suggests that aesthetic interventions are not merely aesthetic choices but also factors that enhance quality of life and strengthen psychosocial well-being. Furthermore, it supports the notion highlighted in the literature that "quality of life is an important motivating factor in seeking aesthetic procedures" and underscores the importance of considering patients' expectations and quality-oflife-oriented motivations during surgical planning. In other words, decisions to undergo aesthetic surgery are influenced not only by concerns about physical appearance but also by expectations regarding psychosocial well-being and overall quality of life.

Conclusions and Recommendations

This study compared social media use, attitudes toward aesthetic surgery, and psychosocial variables (self-esteem, body image, depression, and quality of life) between social media users and individuals who underwent aesthetic surgery. The findings indicate that there are certain demographic differences in social media addiction, selfesteem, depression, body satisfaction, and attitudes toward cosmetic surgery. In both the SMG and ASG groups, single individuals exhibited higher levels of social media addiction and self-esteem. Within the SMG group, associate degree graduates had higher self-esteem than postgraduate graduates, whereas in the ASG group, primary school graduates showed higher levels of depression than associate degree graduates. Additionally, participants in the ASG group whose income was lower than their expenses demonstrated higher social media addiction and more positive attitudes toward cosmetic surgery than those with other income levels. Between-group comparisons revealed that, compared to the SMG group, the ASG group exhibited higher post-surgery social media addiction, greater impact of body image on quality of life, more positive attitudes toward cosmetic surgery, and higher body satisfaction, while self-esteem and depression levels were lower. Pre- and post-surgery comparisons showed increases in social media addiction, the impact of body image on quality of life, positive attitudes toward cosmetic surgery, body satisfaction, and self-esteem, alongside a decrease in depression levels following surgery. Furthermore, in the ASG group, as the positive effect of body image on quality of life increased, acceptance of cosmetic surgery also increased. Based on these findings, it is recommended that awareness programs be developed for individuals with high social media use and those considering cosmetic surgery; psychological support should be provided before and after surgery; personalized interventions should be planned, taking demographic differences into account; future studies should investigate the causes and long-term effects of social media addiction and inclination toward cosmetic surgery;

healthcare institutions should develop informative guidelines and ethical standards

Declarations

Funding: No funding was received for conducting this study.

Conflicts of Interest: The authors declare no conflict of interest.

Ethical Approval: Written approval was obtained from the Kocaeli University Non-Interventional Clinical Research Ethics Committee (22.12.2022; Decision No: KU GOKAEK-2022/21.15) and from the relevant hospital/clinic administration. Permission to use the measurement scales was obtained from the respective scale authors via e-mail.

Informed Consent: Informed consent was obtained from all participants. For the aesthetic surgery group, consent was obtained verbally and in writing prior to data collection; for the social media group, consent was obtained electronically via the online questionnaire.

Data Availability: The datasets generated and/or analyzed during the current study are not publicly available due to ethical and privacy restrictions. De-identified data may be made available by the corresponding author upon reasonable request and with appropriate approvals.

AI Disclosure: Artificial intelligence tools (e.g., ChatGPT by OpenAI) were used solely for translation purposes. No AI tools were used for data analysis, interpretation, or substantive manuscript writing.

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