

THE ACCEPTANCE OF COSMETIC SURGERY SCALE (ACSS) AND ITS CORRELATIONS WITH PSYCHOLOGICAL CHARACTERISTICS AMONG THE CROATIAN POPULATION

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SUMMARY

Background: This study aimed to examine the results of Acceptance of Cosmetic Surgery Scale among the Croatian population and its correlations with other scales and demographic data.

Subject and methods: The sample consisted of 420 people who voluntarily filled out an online questionnaire. They completed demographic questions and four scales: Acceptance of Cosmetic Surgery Scale (ACSS), Rosenberg Self-Esteem Scale (RSES), Satisfaction With Life Scale (SWLS), and Body Appreciation Scale-2 (BAS-2).

Results: ACSS scale showed five statistically significant differences between genders and a higher overall score in women, but no significant differences were recorded in three ACSS subscales and the overall ACSS score. In contrast to men, women respondents recorded a significant negative correlation between ACSS subscales score (Social, Consider) and BAS-2 and Satisfaction with life score, while a positive correlation was recorded with BMI.

Conclusion: The ACSS score among the Croatian population was higher than the results among the Italian and Serbian population, and similar to the original American study, which tells us that the Croatian population accepts and considers cosmetic surgery a lot. Furthermore, our results are important for practitioners and patients because they revealed correlations between ACSS scores and the self-thinking scale.

Key words: ACSS - surgical procedures – psychological characteristics – cosmetic surgery

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INTRODUCTION

Aesthetic procedures are playing an increasingly important role in the world of medicine. According to the latest report of The International Society of Aesthetic Plastic Surgery (ISAPS 2019), the number of surgical cosmetic procedures in 2019 increased by 7.1%, which is a larger increase than in the previous year. The largest number of surgical procedures relate to breast augmentation, liposuction, and eyelid surgery. Since, according to our knowledge, statistics of aesthetic procedures are not yet available in Croatia, this paper aimed to examine the views of the Croatian population on cosmetic surgery and to examine whether there are differences in the acceptance of cosmetic surgery between individuals due to differences in psychological and other characteristics.

SUBJECTS AND METHODS

Subjects

420 people (men=21.20%) among the Croatian population participated in this study. In the female popula-

tion, BMI was calculated (Underweight = 6.0%, Normal weight = 81.9%, Overweight = 9.1%, Obese = 3.0%). The average age among the respondents was 27.60 (SD 9.17). Regarding the place of residence, 356 (84.8%) respondents live in the city, 30 (7.1%) in suburban settlements, and 34 (8.1%) in rural areas. Regarding employment status, 24 (5.7%) respondents are unemployed, 228 (54.3%) are students, 165 (39.3%) are employed, and 3 (0.7%) respondents are retirees. By level of education, 3 (0.7%) respondents have primary education, 141 (33.6%) secondary education, 72 (17.1%) further education, and 204 (48.6%) people have higher education.

Measures

Acceptance of Cosmetic Surgery Scale (ACSS; Henderson-King & Henderson-King 2005)

The Acceptance of cosmetic surgery Scale is a 15-item scale on an individual's attitudes towards cosmetic surgery and acceptance of cosmetic procedures. This scale is the most widely used test to gain insight into how people view cosmetic surgery.

Body Appreciation Scale-2 (BAS-2; Tylka & Wood-Barcalow 2015)

Body Appreciation Scale-2 is a 10-item scale that measures aspects of positive body image. BAS-2 is a revised version of the original BAS (Avalos et al. 2005).

Rosenberg's Self-Esteem Scale (RSES; Rosenberg 1965)

The Rosenberg's Self-Esteem Scale is a 10-item self-report measure of responders' self-esteem and it is the most widely used scale to measure self-esteem.

Satisfaction with Life Scale (SWLS; Diener et al. 1985)

The Satisfaction with Life Scale is a 5-item scale designed to measure the global cognitive judgments of one's life satisfaction.

Demographics

All respondents provided their demographic data including age, gender, highest educational level, settlement type (inner-city area, suburb, village), work status, financial situation, and (just female) self-reported weight and height for calculating BMI.

Procedure

After the ethics committee approved the survey, respondents were selected spontaneously, depending on their interest in completing it. The purpose of the research and procedures were explained to all respondents. They were then given an online questionnaire that they completed individually and anonymously. All respondents voluntarily completed the questionnaire and were not rewarded in any way.

IBM SPSS 28.0 was used for statistics calculation. Kolmogorov-Smirnov and Shapiro-Wilk tests were used to test data distribution. As they did not show normal distribution ($p < 0.05$), the Mann-Whitney U test was used to determine differences between groups. To examine correlations between scales and variables, Spearman's correlation test was used.

RESULTS

Acceptance of cosmetic surgery scale

Table 1 shows descriptive statistics for all questions about the ACSS scale individually, values of three subscales such as Intrapersonal, Social and Consider, and Overall ACSS values. Furthermore, comparison between sexes is presented.

For female respondents, the highest score was recorded in the first ACSS item ("It makes sense to have minor cosmetic surgery rather than spend years feeling bad about your appearance"; $M=5.02$, $SD=1.64$). The lowest score was recorded on the thirteenth ACSS item ("I would seriously consider cosmetic surgery if my partner thinks it is a good idea"; $M=2.21$, $SD=1.60$). For male respondents, the highest score was recorded on the second ACSS item ("Cosmetic surgery is a good thing because it can help people feel better about themselves"; $M=4.88$, $SD=1.77$), while the lowest score was recorded on the eleventh ACSS item ("I would think about cosmetic surgery to still look young"; $M=2.67$, $SD=1.97$).

Table 1. ACSS - descriptive statistics and mean comparisons across sexes

ACSS item	M	SD	Women		Men		Skewness	Kurtosis	p*
			M	SD	M	SD			
Item 1	4.97	1.72	5.02	1.64	4.75	1.98	-0.731	-0.152	0.538
Item 2	4.86	1.62	4.85	1.58	4.88	1.77	-0.627	-0.202	0.664
Item 3	3.82	1.94	3.93	1.90	3.40	2.03	0.002	-1.149	0.023
Item 4	4.39	1.67	4.38	1.63	4.42	1.85	-0.342	-0.544	0.589
Item 5	4.80	1.57	4.84	1.52	4.66	1.76	-0.603	-0.119	0.494
Item 6	3.96	2.09	4.02	2.07	3.75	2.14	-0.079	-1.308	0.266
Item 7	3.90	2.12	3.98	2.09	3.58	2.20	-0.024	-1.346	0.114
Item 8	3.46	2.25	3.61	2.25	2.92	2.20	0.280	-1.424	0.010
Item 9	2.47	1.70	2.36	1.66	2.88	1.81	0.941	-0.108	0.008
Item 10	3.16	1.83	3.06	1.80	3.52	1.88	0.465	-0.788	0.040
Item 11	3.05	1.92	3.15	1.90	2.67	1.97	0.589	-0.803	0.013
Item 12	2.97	1.87	2.92	1.83	3.18	2.01	0.550	-0.821	0.326
Item 13	2.36	1.67	2.21	1.60	2.89	1.84	1.153	0.396	0.001
Item 14	4.13	1.85	4.13	1.81	4.12	2.00	-0.119	-0.964	0.961
Item 15	3.61	2.11	3.61	2.07	3.58	2.25	0.159	-1.332	0.798
Intrapersonal	4.63	1.44	4.64	1.38	4.57	1.66	-0.413	-0.210	0.997
Social	2.89	1.52	2.85	1.46	3.04	1.73	0.625	-0.299	0.580
Consider	3.66	1.36	3.72	1.34	3.44	1.41	0.089	-0.980	0.054
Overall ACSS	3.73	1.29	3.74	1.23	3.68	1.47	0.151	-0.643	0.596

*Mann-Whitney U test

Table 2. Inter-scale correlations between ACSS subscales, BAS-2 scale, Rosenberg Self-Esteem scale, Satisfaction with life scale, Age, and BMI

	1	2	3	4	5	6	7
Intrapersonal		0.727**	0.721**	0.023	0.137	0.227*	-0.130
Social	0.619**		0.847**	0.014	-0.048	0.001	-0.002
Consider	0.689**	0.734**		0.007	-0.036	0.060	-0.016
BAS-2	-0.016	-0.190**	-0.156**		0.728**	0.472**	-0.135
Rosenberg Self-Esteem Scale	-0.037	-0.229**	-0.196**	0.651**		0.630**	-0.017
Satisfaction with life	0.079	-0.098	-0.060	0.352**	0.537**		0.018
Age	-0.099	0.006	-0.072	0.041	0.024	-0.156**	
BMI	-0.114*	-0.102	-0.074	-0.208**	0.003	0.051	0.241**

Note: Women: n = 331; men: n = 89; BAS-2 = Body appreciation scale 2; BMI = Body mass index; N = 331 women lower left corner; *p<0.05; **p<0.01; N = 89 men upper right corner; *p<0.05; **p<0.01

In nine out of 15 questions, female respondents recorded higher scores than male respondents. Of these nine, statistically higher results in women were recorded on the eighth ACSS item ("Sometimes I thought about cosmetic surgery"; women: M = 3.61, SD = 2.25; men: M = 2.92, SD = 2.20; p = 0.010) and the eleventh ACSS item ("I would think about cosmetic surgery to still look young"; women: M = 3.15, SD = 1.90; men: M = 2.67, SD = 1.97; p = 0.013). On the other hand, male respondents had higher values on six ACSS items, but statistically significant differences were recorded on three of them; the ninth ACSS item ("I would seriously consider cosmetic surgery if my partner thinks it's a good idea"; women: M = 2.36, SD = 1.66; men: M = 2.88, SD = 1.81; p = 0.008), the tenth ACSS item "I would never have any cosmetic surgery"; women: M = 3.06, SD = 1.80; men: M = 3.52, SD = 1.88; p = 0.040), the thirteenth ACSS item ("I would seriously consider about cosmetic surgery if my partner thinks it's a good idea"; women: M = 2.21, SD = 1.60; men: M = 2.89, SD = 1.84; p = 0.001).

Looking at the subscales and overall ACSS score, no significant difference between sexes was recorded; Intrapersonal (women: M = 4.64, SD = 1.38; men: M = 4.57, SD = 1.66; p = 0.997), Social (women: M = 2.85, SD = 1.46; men: M = 3.04, SD = 1.73; p = 0.580), Consider (women: M = 3.72, SD = 1.34; men: M = 3.44, SD = 1.41; p = 0.054). The overall ACSS score was higher in women (women: M = 3.74, SD = 1.23; men: M = 3.68, SD = 1.47; p = 0.596).

Inter-Scale Correlations

Inter-item correlations are reported in Table 2. As we can see in Table 2, all three ACSS subscales were highly positively correlated with each other for women and men. In women, Intrapersonal subscale is negatively correlated with BMI while in men Intrapersonal subscale was positively correlated with Satisfaction With Life Scale.

Subscales Social and Consider reported a significant negative correlation with the BAS-2 scale and the Rosenberg Self-Esteem scale in women.

As for BMI, it was also significantly negatively correlated with the BAS-2 scale while positively correlated with Age in the female population.

DISCUSSION

When we compare the ACSS score between genders, our results showed that women have a slightly higher overall ACSS score, as well as Intrapersonal and Consider subscales, while men have a higher score in the Social subscale. Despite that, differences were not significant. These results contradict the results of the original ACSS scale study, which showed that women tend to have significantly higher scores on the Intrapersonal and Consider subscales (Henderson-King & Henderson-King 2005). Our results coincide with the results of the ACSS study among Brazilian adults (Swami et al. 2011) where no significant gender difference was observed. Our findings may be explained by the fact there was no significant difference between genders in the BAS-2 scale, Rosenberg Self-Esteem Scale, and Satisfaction with Life Scale. Since these tests reveal the opinion of the respondents about their own physical appearance, self-esteem, and satisfaction with their own lives, we assume that they also influence the thinking of individuals about having aesthetic procedures.

All three ACSS subscales in our study showed slightly lower scores than the original ACSS study 1 reported by Henderson-King and Henderson-King (2005). Considering the fact that the U.S. is ranked first in the number of aesthetic procedures, it would be logical for them to have the highest ACSS score. Since the Croatian results are very similar to the American ones, we can conclude that the aesthetic procedures are highly accepted among the Croatian population. It must be taken into account that the American study was done in 2005, which means that Croatian trends are still quite behind the American ones.

Comparing our ACSS results with the surrounding countries, such as Italy and Serbia, we can see that the results of all three ACSS subscales and the overall

ACSS are significantly higher in our study than the results reported by Stefanile et al. (2014) among the Italian population. Also, our study reported higher scores in all ACSS subscales and the overall ACSS than the study among the Serbian population (Jovic et al. 2017), with a big difference just in the Intrapersonal scale.

Since Italy and Serbia have a larger number of cosmetic surgeries per year than Croatia, the differences in the ACSS score are very interesting. In our study, a group of people who had already undergone an aesthetic procedure recorded significantly higher results in all three ACSS subscales than a group of people who had not had any aesthetic procedure so far. We could conclude that Croats think a lot about having cosmetic treatment, but it is hard for them to decide to undergo it.

The results of this study include inter-scale correlations. In female subjects, the BAS-2 scale and the Rosenberg Self Esteem scale recorded significant negative correlation with the Social and Consider subscales, while in men no significant correlations were recorded. One possible reason could be that physical appearance affects women more and that physical flaws cause a lack of self-esteem, unlike men. These results are different from the results among the Serbian population (Jovic et al. 2017), where a significant correlation was found between the higher score of all three ACSS subscales and the lower score of the BAS-2 scale, in both men and women. Also, Swami et al. (2011) reported a significant negative correlation between the overall ACSS score and the BAS scale in both genders. The reason for these differences could be that for men in Croatia, physical appearance does not play a big role in thinking of undergoing cosmetic surgery, unlike for men in Brazil and Serbia. Interestingly, the Satisfaction with Life Scale recorded a positive significant correlation with the Intrapersonal subscale in men, while it was not observed in women. This unexpected result could be explained by the fact that men who are satisfied with their own lives look more openly at aesthetic procedures.

In our research, no significant correlation emerged between the participants' age and the ACSS subscales. From the literature, several studies showed positive (Henderson-King & Henderson-King 2005, Jovic et al. 2017) and negative (Swami 2009) correlations between age and the ACSS subscales. Our results are similar to the results among the Italian population (Stefanile et al. 2014), where no significant correlations were recorded either. The reason for the differences between each study could be explained by the characteristics of the respondents, since in our study most people were in their twenties or thirties, with a large percentage of students.

We need to consider some obstacles in our research. First, most respondents live in or around

Zagreb, which is the most developed region in Croatia. People in more developed parts, due to their social environment, generally accept aesthetic procedures more. Furthermore, the respondents are mostly younger people in their 20s and 30s who have different views than older patients (and we know that older patients are the ones who more often decide on cosmetic procedures). Third, there is a much higher percentage of female respondents, which is why the male side is not equally tested.

CONCLUSION

The results of this study showed that in women in Croatia negative body appreciation, lack of self-esteem, and lower BMI are strongly associated with higher scores of the ACSS subscales, in contrast to men. Also, to our knowledge, this is the first research in Croatia investigating the ACSS scale. The results showed us that Croats strongly accept cosmetic surgery, which is useful information for all practitioners performing cosmetic procedures.

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Contribution of individual authors:

All the authors have significantly contributed to the manuscript, and they have all approved its final version.

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