



Demand for Aesthetic Medical Procedures among University Students in the Republic of Croatia: Implications for Marketing

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Abstract

The increasing demand for aesthetic medical procedures among younger generations has transformed the market. This study investigates preferences, barriers, and decision-making factors among university students in Croatia, using different research tools, among which is the standardized Acceptance of Cosmetic Surgery Scale (ACSS). A total of 1,313 respondents, primarily aged 20–25, participated in the research. Results reveal significant gender differences: Women are more inclined toward aesthetic procedures driven by psychological motivators such as self-esteem and societal beauty ideals, favoring treatments like rhinoplasty, lip augmentation, and Botox. Men, on the other hand, prioritize functionality-oriented procedures, including hair transplantation and dental veneers. Barriers such as cost, fear of unsuccessful outcomes, and potential side effects were of particular significance. At the same time, trust in the doctor, the clinic's reputation, and expertise were the most influential factors in decision-making. Besides direct contact with doctors, digital platforms, including social media and clinic websites, were preferred sources of information. These findings highlight the importance of gender-specific marketing strategies, transparency, and flexible financial options to address identified barriers. Leveraging cultural norms, building trust through online engagement, and emphasizing minimally invasive procedures are essential for connecting with this demographic. The study offers actionable marketing insights for aesthetic clinics aiming to attract and retain young clients in a highly competitive Croatian market.

Keywords: aesthetic medical procedures; marketing; Croatia; Acceptance of Cosmetic Surgery Scale (ACSS)

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Introduction

Cosmetic surgery can be defined as *"the preservation, restoration, or improvement of a person's physical appearance, which includes changes in any part of the body. Surgical and medical techniques do it in the presence or the absence of any diseases, injuries, or congenital disabilities"* (Al Ghadeer et al., 2021). It is one of the most powerful means of body transformation available (Seo & Kim, 2020). Those procedures can include surgical procedures such as rhinoplasty but also less invasive methods such as filler treatments (Wu, Mulken, & Alleva, 2022). A large number of people are dissatisfied with their appearance. Different factors impact this notion, such as sexuality and age, as well as psychological factors, such as self-esteem and the internalization of body ideals (Grogan, 2022). It is no wonder that such prevalent feelings of body dissatisfaction lead to the sharp rise of aesthetic medical procedures. The increase in cosmetic surgery and less invasive procedures has been growing rapidly in recent years. According to Grand View Research (2023a & 2023b), the aesthetic surgery market was valued at \$56.4 billion in 2023 and is expected to grow to \$132.2 billion by 2030, with an annual growth rate of 12.9%. The broader aesthetic medicine market is valued at \$127.1 billion in 2023, with a forecast to reach \$332.1 billion by 2030 at a 14.7% annual growth. These figures reflect both surgical procedures like liposuction and breast augmentation and non-surgical treatments such as Botox and dermal fillers, as well as emerging trends in minimally invasive technologies. The 2023 ISAPS International Survey on Aesthetic/Cosmetic Procedures (ISAPS, 2023) highlights a total of nearly 35 million aesthetic procedures performed worldwide, marking a 3.4% increase from the previous year. Surgical procedures accounted for 15.8 million, growing annually by 5.5%, while non-surgical treatments reached 19.2 million, with a smaller increase of 1.7%. Liposuction remained the most performed surgical procedure globally, with 2.24 million procedures, followed by breast augmentation, eyelid surgery, abdominoplasty, and rhinoplasty. Among non-surgical treatments, botulinum toxin (Botox) led with 8.87 million treatments, though it declined slightly by 3.7%, while hyaluronic acid fillers saw substantial growth of 29.1% with 5.56 million procedures. Regionally, the United States led in non-surgical treatments and the number of plastic surgeons (7,750), while Brazil ranked first in surgical procedures with 2.18 million surgeries. Countries such as Turkey and Mexico also emerged as prominent centers for medical tourism, offering high-quality, affordable aesthetic medical services.

A number of recent academic studies demonstrate an increased acceptance (and demand) of aesthetic medical procedures across different demographics, geographic markets, and cultures. Research shows that women are more susceptible to having cosmetic surgery than men, as well as older people compared to younger. However, there are also a number of psychological factors influencing the decision to undergo such a procedure, such as dissatisfaction with body image, celebrity worship, etc. (Swami et al., 2009b). Decreasing barriers and obstacles, such as affordability of aesthetic procedures and social acceptance, have also contributed to their popularity and rise in demand (Shauly et al., 2023). Acceptance of cosmetic surgery has been

measured in different ways. The most standardized tool was developed and validated by Henderson-King & Henderson-King (2005). It is known as the Acceptance of Cosmetic Surgery Scale (ACSS), which has been highly accepted and used since its development. It is a 15-variable tool. This scale was shown to consist of three distinct factorial components: (1) Intrapersonal, focusing on self-related benefits, such as enhanced satisfaction with personal appearance; (2) Social, reflecting socially driven motivations, like wanting to appear more attractive to a partner, and (3) Consider, which evaluates the propensity to undergo cosmetic surgery, incorporating various factors that may influence the decision-making process, such as the fear of post-surgical complications and pain. Repeated research proved that ACSS has high internal reliability (Swami et al., 2009a; Swami et al., 2009c). Current research shows that ACSS is closely correlated with gender (women achieving higher ACSS scores), age (older having higher scores), and different psychological factors such as dissatisfaction with personal appearance and body image disturbance. Also, research proved a positive correlation between ACSS and the Big Five personality dimensions: self-esteem, conformity, self-perceived attractiveness (Swami et al., 2009a), parental behavior, and materialism (Marsidi et al., 2014). It is worth mentioning that overall media exposure, as well as watching body transformation reality shows, also proved to be positively correlated with the ACSS score (Fogel et al., 2014).

Members of Generation Z (born roughly between 1997 and 2012), who make up the sample of this study, are expected to become major spenders in the future, with an estimated spending power of USD 12 trillion by 2030, making them the largest and wealthiest generation in history (NielsenIQ, 2024). Their shopping behavior differs significantly from that of previous generations, making it crucial for providers of aesthetic medical procedures better to understand the preferences of this large demographic segment in order to develop and adapt their marketing strategies effectively.

Research goals and methodology

The primary aim of this study was to explore the demand for and acceptance of aesthetic medical procedures among university students in Croatia, with a focus on understanding their preferences, motivations, and barriers. Specifically, the research objectives were:

1. To analyze the relationship between gender and acceptance of cosmetic surgery by utilizing the Acceptance of Cosmetic Surgery Scale (ACSS) and identifying gender-based differences in attitudes and motivations. For measuring acceptance, the ACSS scale developed by Henderson-King & Henderson-King (2005), which consists of 15 statements measuring attitudes toward aesthetic medical procedures on a 5-degree Likert scale, was used.
2. To identify the most demanded aesthetic medical procedures among university students, highlighting variations in preferences for invasive and minimally invasive treatments.

3. To examine the key barriers preventing students from opting for aesthetic procedures, including financial constraints, fear of outcomes, and social influences.
4. To determine the preferred sources of information for aesthetic procedures and evaluate the role of digital platforms, social media, and word-of-mouth in shaping students' decision-making processes.
5. To provide actionable recommendations for marketing managers in the aesthetic medical field, enabling them to develop tailored strategies that address the unique preferences and concerns of university students in Croatia.

These goals aimed to bridge the gap between current market offerings and the evolving needs of this influential demographic, providing insights to enhance marketing strategies and improve client engagement.

The sample has been non-probabilistic, using conveniently accessible university students, mostly from the University of Zagreb. The data gathering was performed on an annual basis from 2018 to 2024, and 1,634 responses were collected, of which 1,313 were fully completed and validated. Females comprised 70.4% (N=925) of the sample, while 29.6% (N=388) were attributed to the male respondents. A large majority of respondents (95%) belonged to the same age group, ranging between 20 and 25 years.

Research results

Reducing the variables of the ACSS scale resulted in predicted 3 factors explaining 67.1% of variance, as shown in Table 1. Cronbach's Alpha coefficients indicate very good internal consistency or reliability of a set of variables used, making them suitable for both exploratory and confirmatory studies. Coefficients for Consider ($\alpha=0.893$), Intrapersonal benefits ($\alpha=0.820$), and Social benefits ($\alpha=0.822$) show very good reliability.

Table 1. Total variance explained by the extraction of factors (n=1313)

Comp.	Total Variance Explained								
	Initial Eigenvalues			Extraction Sums of Squared Loadings					
	Total	% of Var	Cum%	Total	% Var	Cum %	Total	% Var	Cum %
1	7.412	49.415	49.415	7.412	49.415	49.415	3.883	25.885	25.885
2	1.588	10.584	59.999	1.588	10.584	59.999	3.209	21.396	47.281
3	1.063	7.084	67.084	1.063	7.084	67.084	2.970	19.803	67.084
4	.683	4.551	71.635						
5	.586	3.909	75.544						

Source: Author's work; Note: Extraction Method: Principal Component Analysis. Varimax rotation

The highest score was achieved by a factor consisting of statements regarding the intrapersonal benefits of aesthetic medical procedures (M=3.22), while the lowest score was attributed to statements regarding social benefits (M=1.93).

Table 2. Mean score by ACSS components (n=1313)

Component	Name of the component	N	Min	Max	Mean	SD
1	Consideration	1313	1.00	5.00	2.70	1.157
2	Social benefits	1313	1.00	5.00	1.93	0.882
3	Intrapersonal benefits	1313	1.00	5.00	3.22	1.026

Source: Author's work

The independent samples t-test indicates a statistically significant difference in the consideration for aesthetic medical procedures between males and females. Females have a higher mean score ($M = 2.9148$, $SD = 1.14965$) compared to males ($M = 2.1903$, $SD = 1.00534$). The mean difference is -0.72448 units, with females scoring approximately 0.72 units higher than males on the Consider factor. The t-test results ($t = -11.407$, $df = 824.143$, $p = 0.000$) confirm that this difference is statistically significant at the 0.05 level. The 95% confidence interval for the mean difference is $[-0.84915, -0.59982]$, suggesting that the true difference in means lies within this range, and it does not include zero. This analysis demonstrates that females are significantly more likely than males to consider aesthetic medical procedures, with a robust difference supported by statistical evidence which is in line with the previous research. The next component related to intrapersonal benefits also indicates a significant difference in motivation for aesthetic medical procedures between genders. Females ($M = 3.3308$) have a higher intrinsic motivation compared to males ($M = 2.9465$), with a mean difference of 0.38429. The p-value of 0.000 confirms the statistical significance of this difference, and the confidence interval $[-0.50317, -0.26541]$ supports the reliability of the result. Such a statistically significant difference between genders was not found when considering the social benefits of aesthetic medical procedures between genders. Both genders have nearly identical mean scores (Males: 1.9284, Females: 1.9232) with a negligible mean difference of 0.00511. The p-value of 0.924 confirms that any observed difference is not statistically significant. Since the vast majority of respondents belonged to the same age group (20-25), mean scores related to the age difference have not been analyzed.

The survey also revealed distinct trends in overall aesthetic medical procedure preferences and desires among university students, highlighting significant gender differences and broader societal influences, as shown in Tables 3 and 4. The average number of desired aesthetic medical procedures per respondent was 2.09 (out of 21 offered procedures covering more and less invasive treatments). 17.5% of respondents did not have a preference or need for any aesthetic medical procedure. In line with the ACSS score, female respondents averaged a significantly higher number of desired aesthetic procedures per respondent (2.38) than males (1.38). Women displayed a much higher interest in procedures aimed at enhancing facial and bodily features compared to men. Rhinoplasty is one of the most popular choices, with 28.8% of females opting for it, compared to 13.1% of males. This find confirms a recent study by Brstilo Lovrić, Zujčić, & Škomrlj (2023), where rhinoplasty came on top as the most desired procedure by university students in Zagreb city. Lip augmentation is another dominant preference among women, with 28.4% selecting it versus only 1.0% of men.

Breast-related procedures, including augmentation and reduction, are also highly desired by women, with 20.5% expressing interest. Non-invasive options such as Botox (13.3% of women) and mole or scar removal (25.0% of women) also rank highly among female respondents.

Men, on the other hand, prioritize procedures that address functionality or male-specific concerns. Hair transplantation is a significant area of interest, with 8.5% of men opting for it compared to 2.9% of women. Penile enlargement, selected by 9.3% of men, further highlights the gendered differences in procedure preferences. Dental treatments, such as veneers, show notable interest among men, with 14.4% choosing them compared to 20.5% of women, reflecting a shared but slightly differentiated focus.

Minimally invasive procedures such as mole and scar removal, which is the most popular overall procedure at 25.6%, show balanced interest across genders, with 27.1% of men and 25.0% of women selecting it. Dental braces, a non-surgical and functional enhancement, are desired by 22.2% of respondents, with men (23.7%) slightly exceeding women (21.6%). Botox, while moderately popular overall (10.1%), is much more favored by women (13.3%) than men (2.6%).

Facial enhancements dominate overall preferences, reflecting a strong emphasis on facial harmony and aesthetics. Rhinoplasty, lip augmentation, blepharoplasty (eyelid surgery), and chin correction rank as some of the most desired procedures. Body-related enhancements, while less common, still play a significant role. Breast procedures, including augmentation or reduction (14.8%) and liposuction (5.3%), are particularly popular among women. In contrast, procedures such as buttock augmentation (1.7%) remain niche interests with low overall demand. Dental treatments, including crowns, bridges, and implants, appeal to 9.9% of respondents, with slightly higher interest among men (11.6%) than women (9.2%). These preferences suggest practical concerns, such as tooth loss or damage, may drive some aesthetic decisions. Conversely, low-demand procedures such as tattoo removal (1.7%) and abdominoplasty (1.1%) may be a consequence of younger respondents who do not have preferences for age-related procedures and are in the phase of putting on tattoos rather than removing them.

Overall, the results highlight the interplay of gender, cultural norms, and practicality in shaping preferences and demand for aesthetic medical procedures. Women are more likely to seek enhancements that align with societal beauty standards, emphasizing facial and bodily symmetry. Men, meanwhile, show interest in procedures addressing specific functional or aesthetic concerns, such as hair loss or dental reconstruction. The growing popularity of minimally invasive procedures, such as mole removal and Botox, underscores a broader trend towards accessible and less invasive options in aesthetic medicine.

Table 3. The average number of desired aesthetic medical procedures per respondent

Gender	Mean	N	SD
Male	1.38	388	1.591
Female	2.38	925	2.219
Total	2.09	1313	2.103

Source: Author's work

Table 4. Desired aesthetic procedures (N=1,313, multiple items selection)

	Count	Male	Female	% of male	% female	% of total
Not wanting any procedure	230	98	132	25.3%	14.3%	17.5%
Face lifting	83	8	75	2.1%	8.1%	6.3%
Otoplasty	99	23	76	5.9%	8.2%	7.5%
Buttock augmentation with implants	22	2	20	0.5%	2.2%	1.7%
Lip augmentation	267	4	263	1.0%	28.4%	20.3%
Rhinoplasty	317	51	266	13.1%	28.8%	24.1%
A forehead lift, brow lift, or browplasty	94	8	86	2.1%	9.3%	7.2%
Removal of moles and scars	336	105	231	27.1%	25.0%	25.6%
Botox	133	10	123	2.6%	13.3%	10.1%
Penile enlargement	39	39	0	9.3%	0%	3.0%
Blepharoplasty	109	16	93	4.1%	10.1%	8.3%
Platysmaplasty	23	3	20	0.8%	2.2%	1.8%
Mastopexy	77	3	74	0.8%	8.0%	5.9%
Liposuction	70	9	61	2.3%	6.6%	5.3%
Chin correction	114	18	96	4.6%	10.4%	8.7%
Abdominoplasty	14	1	13	0.3%	1.4%	1.1%
Breast augmentation or reduction	194	4	190	1.0%	20.5%	14.8%
Tattoo removal	22	9	13	2.3%	1.4%	1.7%
Hair transplantation	60	33	27	8.5%	2.9%	4.6%
Dental veneers	246	56	190	14.4%	20.5%	18.7%
Dental crowns, bridges, implants	130	45	85	11.6%	9.2%	9.9%
Dental braces	292	92	200	23.7%	21.6%	22.2%

Source: Author's work

The correlation analysis reveals that the desired number (demand) of aesthetic medical procedures is statistically significantly correlated with all three components (factors) of the ACSS scale. Factor Consider is moderately to strongly associated with the desired number of aesthetic medical procedures ($r = 0.558$, $p < 0.01$). This suggests a direct connection between openness and acceptance of aesthetic procedures and a larger number of preferences (demand) for them. Social benefits also show a moderate positive correlation with the desired number of procedures ($r = 0.398$, $p < 0.01$). Intrapersonal motivations are also positively but less strongly correlated with the desired number of procedures ($r = 0.348$, $p < 0.01$), suggesting that personal internal reasons, such as self-image or self-improvement, contribute to this interest but to a

lesser extent compared to the other two components. These results highlight that ACSS, and especially the Consider component, could be predictors of demand for aesthetic medical procedures on the individual level.

Table 5 provides a detailed comparison of the perceived impact of various barriers and obstacles for undergoing aesthetic medical procedures among all respondents, as well as separately for males and females. The scores represent the mean impact ratings on a 5-degree Likert scale, with higher means indicating greater perceived obstacles. The fear that the procedure might be unsuccessful ($M=3.80$) is the most impactful barrier or concern for all respondents, followed by similar concerns related to possible side effects ($M=3.69$) and pain ($M=3.10$). Females rate these three obstacles or fears significantly higher compared to males, further highlighting gender differences in concerns related to risk and outcomes of more invasive – surgical procedures that women desire more than men.

The high cost of the procedure or lack of money to pay for it is overall the second most significant barrier for both genders, with a mean score of 3.72 for all respondents. Females again rate this obstacle higher ($M = 3.83$, $SD = 1.352$) compared to males ($M = 3.45$, $SD = 1.410$), suggesting that financial concerns weigh more heavily on women either because of lower income or because females, on average, desire more procedures than men and more expensive ones. On the other hand, social obstacles such as disapproval from parents, friends, and partners are generally rated as less impactful, with minimal gender differences. This finding is also in line with the earlier results of ACSS's social benefits being the least important when considering the aesthetic procedure.

Table 5. Importance of selected barriers and obstacles for deciding to perform aesthetic medical procedure (1-not important, 5-highly important)

Selected barriers and obstacles	All respondents			Male			Female		
	Mean	N	SD	Mean	N	SD	Mean	N	SD
High cost of the procedure/lack of money to pay for the procedure	3.72	1313	1.380	3.45	388	1.410	3.83	925	1.352
Disapproval from parents or family.	2.73	1313	1.408	2.73	388	1.411	2.72	925	1.408
Disapproval from friends.	2.21	1313	1.265	2.27	388	1.258	2.18	925	1.268
Fear of pain.	3.10	1313	1.425	2.65	388	1.391	3.30	925	1.396
Concern about possible side effects.	3.69	1313	1.311	3.29	388	1.368	3.86	925	1.250
Fear that the procedure might be unsuccessful.	3.80	1313	1.312	3.43	388	1.363	3.95	925	1.259
Disapproval from a partner.	2.29	1313	1.363	2.50	388	1.400	2.20	925	1.338

Source: Author's work

Table 6 provides insights into the importance of various criteria influencing decisions to undertake aesthetic medical procedures. It presents mean values (M) with standard deviations (SD), along with breakdowns by gender. Trust in the doctor performing the procedure emerged as the most critical factor overall, with a mean score of 4.56 and a relatively low standard deviation of 0.962, indicating strong agreement among

respondents. Females ($M = 4.67$) rated this criterion slightly higher than males ($M = 4.28$). Similarly, the expertise of the doctor performing the procedure scored very high ($M = 4.55$), and the reputation of a doctor or a clinic was also high ($M = 4.31$). Recommendations from friends who had the procedure scored moderately high, with a mean of 4.13. Positive user reviews on social media were also important, with a mean of 3.93. Media articles related to the success of the doctor or clinic had a moderate mean score of 3.61. In contrast, factors such as lower price ($M = 2.66$), the procedure's location ($M = 2.73$), and advertisements in the media ($M = 3.10$) were among the least important criteria. Males ($M = 2.72$) found price slightly more important than females ($M = 2.63$), while females ($M = 3.20$) considered advertisements more influential than males ($M = 2.86$).

Overall, the data highlights the importance of quality-related factors, such as trust, expertise, reputation, and recommendations. For providers of aesthetic medical procedures, this indicates that building trust, showcasing expertise, and maintaining a strong reputation are essential strategies, especially when targeting female clients. Positive word-of-mouth and online reviews also play an important role. At the same time, factors like price and advertising are of secondary concern. Even though the previous table related to obstacles, financial costs proved to be a significant obstacle when deciding to undergo such a procedure.

Table 6. Importance of different criteria for deciding to undertake aesthetic medical procedure (N=1,313)

	Mean (M)	SD	Male (M)	Female (M)
The procedure is cheaper compared to the competition.	2.66	1.290	2.72	2.63
Recommendation from friends who have had the procedure there.	4.13	1.067	3.83	4.25
Location – it is in the city where I live.	2.73	1.372	2.68	2.75
Good reputation of the doctor/clinic.	4.31	1.043	4.13	4.38
Trust in the doctor performing the procedure.	4.56	0.962	4.28	4.67
Media articles related to the success of the doctor/clinic.	3.61	1.278	3.36	3.72
Advertisements in media related to the doctor/clinic.	3.10	1.309	2.86	3.20
Better payment options than the competition (installments, cards, etc.)	3.38	1.339	3.05	3.51
The doctor performing the procedure is a top expert in the field.	4.55	0.961	4.32	4.65
Positive user reviews on social media.	3.93	1.181	3.56	4.08

Source: Author's work

Finally, table 7 illustrates the importance of various sources of information about desired aesthetic medical procedures that respondents would consult before deciding to do a procedure, measured using a 3-degree Likert scale (1 = least important, 3 = most important). The data includes mean values, providing insight into the relative importance and consistency of each information source. Meeting and discussing with a doctor ranked as the most important source, with the highest mean score of 2.70. This indicates a strong preference for direct, personalized consultations with medical

professionals. Inquiring with friends and acquaintances was the second most important source ($M = 2.59$, $SD = 0.626$), highlighting the value of trusted word-of-mouth recommendations. The website of the clinic or doctor and calling the clinic by phone were also highly rated, with mean scores of 2.57 and 2.51, respectively. This suggests that online resources and direct communication with clinics are significant for obtaining information. Google, as a search engine, scored similarly with a mean of 2.50, reflecting its role as a common tool for initial research.

Social media had a slightly lower mean score of 2.34 ($SD = 0.721$), indicating moderate importance but with higher variability in responses compared to other digital sources. Specialized medical magazines received a mean score of 2.07, showing some relevance, likely among respondents seeking detailed or technical information. Traditional media sources, such as TV, radio, daily newspapers, and fashion or youth-oriented magazines, all scored below 2.0, showing the least importance. These low scores suggest that traditional forms of media play a minimal role in influencing decisions related to aesthetic medical procedures.

Table 7. Source of information about the desired aesthetic medical procedure (n=1,313)

	Mean	SD
Website of the clinic/doctor	2.57	0.635
Google (search engine)	2.50	0.655
Social media	2.34	0.721
TV or radio	1.56	0.686
Daily newspapers	1.41	0.636
Magazines aimed at fashion and young people	1.57	0.698
Specialized medical magazines	2.07	0.802
Inquire with friends and acquaintances	2.59	0.626
Call the clinic by phone and ask for information	2.51	0.695
Meeting and discussing with the doctor	2.70	0.577

Source: Authors' work; Note: 1-do not use; 3-frequently use

Discussion: Implications for marketing

The findings of this study offer valuable insights into the preferences and motivations of university students in Croatia regarding aesthetic medical procedures. These insights carry significant implications for marketing strategies aimed at this demographic, emphasizing the importance of addressing psychological, cultural, and economic factors.

Gender-specific marketing strategies are relevant since the data highlights clear gender differences in the acceptance and demand for aesthetic medical procedures. Women demonstrated higher ACSS scores and greater interest in procedures targeting facial and bodily enhancements, such as rhinoplasty and lip augmentation. Conversely, men prioritized functionality-driven treatments like hair transplantation and dental veneers. These findings suggest the need for gender-specific marketing approaches. Campaigns directed at women should emphasize the self-enhancement and confidence-boosting aspects of procedures. Testimonials and case studies from satisfied female patients

could resonate strongly, particularly when focusing on facial harmony and beauty ideals. Messaging for men should highlight practical and functional benefits, such as addressing hair loss or improving dental aesthetics. Men may also respond to understated and rational appeals focusing on health or professionalism rather than beauty.

Respondents ranked trust in the doctor, their expertise, and the clinic's reputation as the most critical decision-making factors. Marketing efforts should, therefore, prioritize transparency and credentials (for example, highlighting certifications, years of experience, and patient outcomes to build trust), content marketing (creating detailed educational materials, including videos and blogs, explaining procedures, and showcasing expertise), and social proof (encouraging positive online reviews and recommendations, as these play a pivotal role in influencing decisions).

The high cost of procedures emerged as a significant obstacle, particularly for women who desire more procedures on average. Marketing strategies should explore ways to make aesthetic treatments more financially accessible, such as flexible payment plans (offer of installment options or partnerships with financial institutions to ease upfront costs) and special offers and packages (promotion of bundled treatments at discounted rates or seasonal promotions to attract cost-conscious students).

Direct engagement with healthcare providers and digital platforms were the most valued information sources among respondents. Social media and clinic websites stood out as influential tools. Marketing managers should leverage these channels by enhancing online presence (optimizing websites for search engines and ensuring mobile-friendly designs. Including features like virtual consultations and detailed FAQ sections), social media campaigns (sharing authentic content, such as patient journeys, behind-the-scenes videos, and live Q&A sessions with doctors, to engage audiences on platforms like Instagram and TikTok), and influencer partnerships (collaboration with local influencers who align with the target audience's aesthetic values).

The preference for less invasive options, such as mole removal and Botox, underscores a growing trend toward accessible and low-risk treatments. Clinics should capitalize on this by highlighting quick and painless options (using marketing communication to dispel fears of pain and emphasize the convenience of non-invasive procedures) and educational campaigns to address misconceptions and reduce anxiety around aesthetic treatments through transparent communication about safety and outcomes.

The results reflect the impact of societal norms on aesthetic preferences. Marketing campaigns should consider cultural aesthetics and beauty standards specific to Croatian society, ensuring inclusivity and relatability. By tailoring strategies to the unique preferences and barriers identified among university students, marketing managers can better align their efforts with the evolving demands of this demographic. Addressing psychological motivators, leveraging trusted communication channels, and offering financial flexibility will be critical in positioning clinics as leaders in the competitive aesthetic medical market.

Conclusion

This study provides an in-depth analysis of aesthetic medical procedure preferences among university students in Croatia, offering valuable insights into the factors influencing demand and acceptance. The findings highlight notable gender differences, with women exhibiting higher scores on the Acceptance of Cosmetic Surgery Scale (ACSS) and a greater propensity to consider aesthetic procedures. Psychological motivators, including self-esteem, internalized beauty standards, and a desire for self-enhancement, primarily drive these differences. Women's preferences align with societal beauty ideals, favoring procedures such as rhinoplasty, lip augmentation, and breast-related treatments. In contrast, men prioritize functionality-driven interventions, such as hair transplantation and dental corrections, emphasizing practical benefits over aesthetic aspirations.

The popularity of minimally invasive procedures, such as Botox and mole removal, underscores a growing trend toward accessible and less risky options. These treatments appeal to both genders and reflect broader societal preferences for convenience and reduced recovery times. However, significant barriers remain, with cost emerging as the most critical obstacle for many respondents. Financial constraints particularly impact women who express interest in a wider range of procedures. Additionally, fear of unsuccessful outcomes, potential side effects, and pain further deter individuals from pursuing more invasive options.

The implications for marketing strategies are substantial. Trust in the doctor, the clinic's reputation, and demonstrated expertise were identified as the most influential factors in decision-making. To address these needs, aesthetic clinics should prioritize transparency in their marketing, showcasing credentials, patient testimonials, and success stories. Digital platforms such as clinic websites and social media offer opportunities for engagement, particularly with Generation Z, who favor direct consultations and interactive content (Neff, 2022). Connecting. Partnerships with influencers and targeted campaigns on platforms like Instagram and TikTok can further enhance visibility and credibility.

Addressing financial barriers through flexible payment options, installment plans, and promotional bundles will be critical to making procedures more accessible to university students. Clinics can also leverage educational campaigns to reduce fears about potential complications, emphasizing the safety and reliability of minimally invasive treatments. Word-of-mouth and personal recommendations remain highly influential, and fostering positive experiences among current clients will contribute to building a strong reputation and attracting new patients.

This study highlights the interplay of gender, cultural norms, and psychological motivators in shaping aesthetic preferences. By aligning their strategies with these insights, aesthetic clinics can better cater to the unique needs of university students in Croatia, ensuring a more personalized and effective approach to marketing. As the demand for aesthetic medical procedures continues to grow, clinics that address

psychological, economic, and informational barriers will be well-positioned to succeed in this competitive market.

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