



# Sociodemographic characteristics, lifestyle habits, and criteria of the patient for the choice of the plastic surgeon

*Características sociodemográficas, hábitos de vida e critérios do paciente para a escolha do cirurgião plástico*

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## ■ ABSTRACT

**Introduction:** Around the world, approximately 11 million plastic surgeries are estimated to be performed each year. Individuals with different needs and sociodemographic profiles have used similar means to search for medical service providers, modifying consumer relations. Thus, is necessary a more detailed analysis of consumers' characteristics of health services related to plastic surgery and the factors that impact their decision-making, since patients and their families need to feel safe when seeking medical treatment, and professionals should be the facilitators of this process. **Methods:** This is a real-life, prospective, observational, and descriptive study conducted in a single hospital center. We included in the sample 501 patients submitted to plastic surgeries, from June to November 2017, performed exclusively by specialist surgeons by the Sociedade Brasileira de Cirurgia Plástica (SBCP). Sociodemographic characteristics, life habits, and criteria for the surgeon's choice were evaluated. **Results:** The sample consisted predominantly of young, brown, married adult women with average body mass index (BMI), higher education level, and belonging to the upper-middle class, most of whom were physically active and did not reveal any bias. The most used criterion for choosing the plastic surgeon was the indication of friends or family. **Conclusion:** This study produced reliable results for describing patients' sociodemographic characteristics and life habits, allowing the identification of the most relevant factor in the plastic surgeon's choice.

**Keywords:** Plastic surgery; Choice behavior; Social media; Demographics; Social behavior.

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## ■ RESUMO

**Introdução:** No mundo todo, estima-se que aproximadamente 11 milhões de cirurgias plásticas sejam realizadas a cada ano. Indivíduos com diferentes necessidades e perfis sociodemográficos distintos têm utilizado meios semelhantes na busca dos prestadores de serviços médicos, modificando as relações de consumo. Assim, faz-se necessária uma análise mais detalhada sobre as características dos consumidores dos serviços de saúde relacionados à cirurgia plástica e sobre os fatores que impactam em sua tomada de decisão, uma vez que os pacientes e seus familiares precisam se sentir seguros ao buscar tratamento médico e os profissionais devem ser os facilitadores desse processo. **Métodos:** Trata-se de um estudo de vida real, prospectivo, observacional e descritivo, conduzido em um único centro hospitalar. Foram incluídos na amostra 501 pacientes submetidos a cirurgias plásticas, no período de junho a novembro de 2017, realizadas exclusivamente por cirurgiões especialistas pela Sociedade Brasileira de Cirurgia Plástica (SBCP). Foram avaliadas as características sociodemográficas, hábitos de vida e os critérios para a escolha do cirurgião. **Resultados:** A amostra foi composta predominantemente por mulheres adultas jovens, pardas, casadas, com índice de massa corpórea (IMC) normal, nível superior de escolaridade e pertencentes à alta classe média, cuja maioria mostrou-se fisicamente ativa e não revelou qualquer vício. O critério mais utilizado para a escolha do cirurgião plástico foi a indicação de amigos ou familiares. **Conclusão:** Este estudo produziu resultados confiáveis para a descrição das características sociodemográficas e hábitos de vida dos pacientes, permitindo identificar o fator mais relevante na escolha do cirurgião plástico.

**Descritores:** Cirurgia plástica; Comportamento de escolha; Mídias sociais; Demografia; Comportamento social.

## INTRODUCTION

Consumer relations have changed over time and the means used to search for products and services. The most efficient ways of promoting health services have become online and offline media. In contrast, web technologies and mobile technologies have increasingly influenced the health market in recent years, increasing the impact of virtual media and social media on medical professionals' choice<sup>1</sup>.

Features such as *webinar*, *Slideshare*, *e-books*, *YouTube*, *Facebook*, *Instagram*, and *Twitter* are increasingly used vehicles in the promotion and advertising of health services, and online reviews, reviews, and ratings are an essential part of their decision making process<sup>2</sup>. This new architecture involving health data led to the creation and development of marketing strategies focused exclusively on the medical area, generating ethical conflicts and interfering in the doctor-patient relationship<sup>3</sup>.

With this emerged two antagonistic positions: those who see medicine as a priesthood with its inviolable ethical precepts and those who see it as a professional activity like all others, free to compete according to market rules. Despite this duality concerning medical professionals' positioning, a marked change has been happening in the last 20 years, with an increase of more than 450% in advertising expenses directed directly to the consumer of health services, which means approximately 10 billion dollars spent annually on medical marketing<sup>4</sup>.

In November 2018, the International Society of Aesthetic Plastic Surgery (ISAPS) published data from 2017 on the number of plastic surgeries performed worldwide. There were almost 11 million surgeries, of which the United States held 14.5%. In second place is Brazil, with 1,466,245 plastic surgeries performed, which corresponds to 13.6% of the total, followed by Japan, Mexico, and Italy, adding up to these five countries 38.4% of all surgical procedures performed the specialty in 2017. In addition to the Germany, Colombia, and Thailand

group, we have 45.3% of all plastic surgeries performed worldwide being performed in these eight countries.

This significant number of surgeries performed in an extremely competitive market raises some questions about the factors involved in surgeons' choice and these patients' profile. It is known that personal indications ("word-of-mouth") and the professional's reputation are considered quite significant criteria in the choice of physician and that the doctor, concerned with the labor market, has sought several alternatives to remain competitive<sup>6</sup>, but what is the true impact of the digital age in this "new" consumer relationship?

## OBJECTIVES

This study aimed to describe the criteria for the plastic surgeon's choice and the sociodemographic characteristics and life habits of patients undergoing plastic surgery in a single hospital in Goiânia - Goiás.

## METHODS

This is a prospective and descriptive study, conducted from June to November 2017, at the Hospital Premium, a private hospital in Goiânia - Goiás, which specialized in performing plastic surgeries. All procedures were performed exclusively by plastic surgeons specialist members of the *Sociedade Brasileira de Cirurgia Plástica* (SBCP).

The present study included 501 patients submitted to predominantly cosmetic plastic surgeries. Data were collected for six months (June to November 2017), through interviews of patients with the nurse responsible for data collection, after their hospital admission to perform the scheduled procedure.

All plastic surgeons who make up their clinical staff were invited to participate in the study and, in order for their patients to be included in the sample, both should agree in advance and sign the free and informed consent form (ICF).

The project was submitted for consideration in the research ethics committee (CEP) of the Hospital das Clínicas (HC) of the Federal University of Goiás (UFG), following the provisions of the resolution of the National Health Council (CNS) 466/12 and in the operational standard of the National Health Council (CNS) 001/13, obtaining its approval on October 20, 2016, with opinion number: 1,783,817 and certificate of presentation for ethical assessment (CAAE): 59601116.4.0000.5078.

All collected data were organized to increase the numerical order of identifying their questionnaires and stored in an Excel database (Microsoft Excel 2010) for its subsequent transfer to the SPSS-IBM version 22 software. The statistical hypothesis and the association tests were tested.

Descriptive statistical analysis of quantitative variables was performed with minimum and maximum values, means, medians, and standard deviation (SD). For the qualitative variables, their percentage values and relative and absolute frequencies were presented.

The Chi-Square test performed the associations of categorical variables, and all data were analyzed with a significance level (alpha) of 0.05 ( $p < 0.05$ ) and a 95% confidence interval.

## RESULTS

The sample consisted of 501 patients who formed the database obtained by the nurse responsible for its collection. The valid percentages for each variable analyzed were considered.

Criteria for choosing the plastic surgeon:

- The number of plastic surgeons consulted presented the following variation (Table 1):

**Table 1.** Distribution regarding the number of plastic surgeons consulted for the procedure.

Consulted	n	%
A	236	56.3
Two	112	26.8
Three	48	11.5
Four	11	2.6
Five	6	1.4
Six	3	0.7
Seven	0	0
Eight	3	0.7
Total	419	100

- The most common way to find the current plastic surgeon follows below (Table 2):

**Table 2.** Distribution as to how you found your current plastic surgeon.

Means of encounter	n	%
I was already a patient	2	0.5
Another doctor indicated	0	0
Friend/family member indicated	396	96.4
Covenant catalog	0	0
Magazine (health/beauty)	0	0
Internet search	9	2.2
Facebook Group	1	0.2
WhatsApp Group	2	0.5
Instagram Profile	0	0
Other	1	0.2
Total	411	100

- Among the most performed plastic surgeries before the current procedure, we have (Table 3):

**Table 3.** Distribution of plastic surgeries most performed before the current procedure.

Surgery	n	%
Liposuction	19	12.7
Mamas	101	67.3
Abdomen	19	12.7
Glutes	0	0
Hair transplantation	0	0
Face	1	0.7
Eyelids	2	1.3
Nose	7	4.6
Ears	1	0.7
Other	0	0
Total	150	100

- Among the mammoplasties, the most performed was the increase in silicone prosthesis (Table 4).

**Table 4.** Distribution of mammoplasties by type.

Mammoplasty	n	%
Increase	114	75.9
Mastopexy	25	16.8
Reduction	11	7.3
Total	150	100

While 49.0% of patients reported that the procedure was performed with the same surgeon, 51.0% performed the procedure with a surgeon different from their previous surgeon (n=98).

### Sociodemographic profile

Ages ranged from 15 to 77 years, whose mean and median were 35.31 and 34 years, respectively, with a standard deviation (SD) of 9.9 (n=501). Regarding gender, 97.6% were female and 2.4% male (n=501). In the variable skin color, 26.9% declared themselves white, 8.1% yellow, 64.7% brown and 0.3% black (n=356).

The level of education obtained was 2.1% with elementary school, 35.1% with high school, and 62.8% with higher education, of which 2.2% had a master's degree, 2.2% with a doctorate, 8.7% master in business administration (MBA) (n=433).

Regarding marital status, 35.7% were single, 0.5% had a stable union, 55.7% were married, 6.9% divorced and 1.2% widowed (n=420).

Regarding pregnancies, 31.7% of the patients had never become pregnant, and 68.3% had previously become pregnant (n=429). Of the patients who became

pregnant, 30.3% had a single pregnancy, 51.0% had two pregnancies, 15.6% had three pregnancies, and 3.1% had four pregnancies (n=294), with a mean of pregnancies being 1.69 and median rate of 2.00 (SD=0.47).

In this sample, 86.2% of women never aborted, while 13.8% did, with an average of 1.14 abortions and a median of 1.00 (SD = 0.35) (n = 420). The percentage of patients who did not breastfeed was 44.7%. Of the 55.3% who did, 1.9% were still breastfeeding at the time of surgery (n = 378). Regarding future pregnancies, 30.6% of the patients who underwent plastic surgery wanted a new pregnancy, and 69.4% did not (n = 369).

The average estimated monthly family income (in Reais) ranged from R\$1,000.00 to R\$50,000.00, with an average of R\$7,341.69 and a median of R\$6,000.00 (SD=5,871.20), and 83.7% of patients had an income of up to R\$10,000.00 (ten thousand reais), 14.9% of up to R\$20,000.00 (twenty thousand reais), 0.7% of up to R\$30,000.00 (thirty thousand reais) and 0.7% up to R\$50,000.00 (fifty thousand reais) (n=307).

### Anthropometric

Body mass (weight) ranged from 42 to 120 kg (Kg) (n=451), with an average of 63.99Kg and median of 63Kg (SD=9.95), and 43.5% of patients did not vary weight in the 12 months before surgery, while 29.6% lost weight and 26.9% gained weight. Losses ranged from 1 to 59Kg, with an average of 7.82Kg and a median of 5.50Kg (SD=7.16). Gains ranged from one to 20Kg, with an average of 5.33Kg and a median of 4.00Kg (SD=4.02).

While 49.0% of the patients intended to maintain their weight after surgery, 45.3% intended to lose, and only 5.7% intended to gain weight. This loss expectation concerning the current weight ranged from 1 to 30Kg, with an average of 5.77Kg and a median of 5.00Kg (SD=3.98). The gain ranged from two to 6Kg, with an average of 3.78Kg and a median of 4.00Kg (SD=1.56).

The mean height was 162.93 centimeters (cm), with a median of 163.00cm (SD=7.06) (n=448). The association of weight with height was able to provide data on body mass index (BMI), whose mean was 24.10 and median 23.73 (SD=3.15). Regarding BMI, 7.6% of patients were classified as underweight, 56.7% as average weight, 31.6% overweight, and 4.1% as obese (n=446).

### Lifestyle habits

While 44.3% of the patients reported not practicing any physical activity and 3.7% reported doing so less than once a week, 52.0% reported practicing physical exercises more regularly than once a week. The mean training days were 2.08, and the median was 3.00 (SD=0.99) (n=427).

The percentage of patients who never smoked was 97.3%, and 0.9% smoked in the past, 1.4% were passive smokers, and 0.5% still actively smoked (n=437).

The ethyl habit was recorded by 34.7% of respondents, 23.5% drank less than once a week, 10.1% once to twice a week, and 1.1% three to four times a week, while 65.3% of the sample denied drinking alcohol (n=435).

No patient claimed to be a user of any drug, toxic or narcotic, and 4.7% assumed they had already tried without becoming users, while 95.3% reported having never had contact with any of these substances (n=429).

While 92.6% of patients denied regular use of medications, 7.4% reported their use, among which 2.0% reported the consumption of natural formulas and 1.2% vitamin intake (n=244).

## DISCUSSION

Medical marketing has increased substantially over the past two decades, with spending growing from \$17.1 billion in 1997 to \$29.9 billion in 2016. The fastest increase was in direct advertising to the consumer of medicines and services, which increased from \$2.1 billion to \$9.6 billion from 1997 to 2016. When it comes exclusively to health services, this increase has been from \$542 million to \$2.9 billion over the past 20 years, with the increase in the number of ads being 14,100 to \$255,300, represented by the increase in advertising of less expensive electronic media<sup>4</sup>

Even with this increase in virtual advertising, there is still little guidance for young plastic surgeons who wish to use social media for professional purposes, causing several behavioral doubts involving specialty members. This has made many surgeons of different ages still resist using these media as a marketing tool for fear of committing an ethical illicit or understanding that this is a radical and unprofessional form of interaction with their patients<sup>7</sup>.

Despite the controversy, medical websites and health care providers are becoming increasingly marketing-oriented<sup>8</sup>, and social media has been increasingly valued as communication tools to interact with patients and educate the population. This appreciation is based on studies showing that 65 percent of Americans and 90 percent of young adults use social media<sup>7</sup>.

According to our study's findings, the choices based on information available on the Internet or social networks were 2.9% only, half of the percentage found by Araújo et al., in 2013<sup>9</sup>, when considering Internet, magazine or TV.

Despite the wide use of electronic media demonstrated by Cho et al. in 2019<sup>7</sup>, they are a search

tool still little used concerning plastic surgery. These data are corroborated by Araújo et al. (2013)<sup>9</sup>, in which personal indications (from doctors, friends, or close relatives) for the choice of the plastic surgeon were predominant. This type of marketing, also known as "word-of-mouth" advertising, is supported by physicians' opinion about its efficiency since 95.1% consider word-of-mouth advertising to be the best way to publicize their office clinic<sup>10</sup>.

Data from our study also revealed that more than half (50.5%) of the patients consulted only one plastic surgeon for the performance of their plastic surgeries, agreeing with Araújo et al. (2013)<sup>9</sup>, whose work also revealed that the first consultation was considered as one of the essential elements in the choice of the plastic surgeon. Although people are becoming increasingly informed<sup>11</sup>, this demonstrates how much they still value the empathy, trust, and attention of the professional during the consultation when choosing their surgeon<sup>12</sup>.

This brings us to the fact that, despite the speed of transmission of information and the rapid development of modern marketing in health, professional roles and responsibilities should be seriously taken into account, especially when dealing with social media in the field of medicine. Besides, it is essential that data are not misused, always guarding patients' privacy and confidentiality, so that trust in the professional is not compromised<sup>1</sup>.

Another important aspect that should be considered is that, although medical marketing increases in scope and scale, the professional should clarify the clinical conditions and treatment options available. Doctors need to be cautious to avoid behaviors that maximize profit at the expense of patients' real needs. Their ads' content must be explicit and informative, respecting the profession's ethical precepts and safeguarding the doctor-patient relationship<sup>13</sup>. Because at the same time that advertising and promotion are part of the strategy to maintain the relationship with the target audience, their activities are regulated by ethical rules established for the health market<sup>1</sup>.

Thus, promotional messages must show the truth without creating unrealistic expectations, consistent and plausible communication, as the target audience for these ads is people who desire to be well. They are vulnerable beings who seek to buy any service that appears to be following their desire to improve their health status, even if that specific service is not good or suitable for them<sup>1</sup>. Misleading advertisements with promises of results should be repressed, which lead the patient to make the wrong decisions based on incomplete or wrong information and unrealistic expectations<sup>13</sup>.

About the patients' sociodemographic characteristics, 35.3 year mean age is supported by the literature<sup>9,14</sup>, as well as the distribution regarding gender, with women predominance<sup>5,9,14</sup>. Data related to marital status also showed some similarities with other studies, with a predominance of married people, followed by singles in this group of patients<sup>9,14,15</sup>.

Concerning education, more than half had completed higher education, more than a third high school, and a minority only elementary school, according to Araújo et al. (2013)<sup>9</sup>. In both studies, more than three quarters of the sample had an estimated average household income of up to 10,000 reais, followed by those earning 10 to 30,000 reais and a minority with incomes higher than 30,000 reais, without exceeding 50,000 reais.

According to the survey of the ethnic-racial characteristics of the population, from the Brazilian Institute of Geography and Statistics (IBGE), in 2008<sup>16</sup>, when asked the color or race from an open question (self-classification), 65% of the interviewees used one of the five IBGE classification categories: white (49.0%), black (1.4%), brown (13.6%), yellow (1.5%) and indigenous (0.4%), in addition to the terms "brunette" (21.7%, including variants "light brunette" and "dark brunette") and "black" (7.8%), and we found in the current sample a different classification regarding racial composition, color item: 26.9% declared themselves white, 8.1% yellow, 64.7% brown and 0.3% black.

Regarding the sociodemographic characteristics of the sample, taking data from the Brazilian Institute of Geography and Statistics (IBGE), in 2002-2003<sup>17</sup>, in the population aged 20 years or older, the prevalence of overweight in the Midwest region was 2.4% for men and 6.2% for women, and obesity was 8.6% for men and 10.6% for women. Our sample data revealed a higher overweight rate with a lower number of obese individuals, corroborating the findings of Kaoutzanis et al., in 2018<sup>18</sup> and Gupta et al., in 2016<sup>19</sup>.

Considering the life habits of the population studied, more than half of the patients (52%) reported regular physical exercise, two-thirds (65.3%) denied drinking alcohol, the vast majority denied the use of medicines (92.6%) and smoking (97.3%). The total sample (100%) denied being a drug user, toxic or narcotic.

## CONCLUSION

This study's conduction in a single center, whose scope is the performance of plastic surgeries, provided support for a better understanding of the methods of choice most used by patients searching for a plastic surgeon, which were based predominantly on the

indication of friends and family. A reliable sample was also produced to describe the sociodemographic characteristics of patients, composed predominantly of young, married, brown adult women with higher education level and belonging to the upper-middle class, physically active and without addictions, demonstrating that this is the most common profile concerning the search for plastic surgeries in our country.

The speed of social networks' progress is opposed to the softness of its regulation for medical use. The first constitutes a limiting factor regarding the prospection of results for other populations outside this temporal context. The second highlights the importance of good medical training regarding the use of marketing according to current legislation to mitigate the potential harm caused to patients, resulting from unethical and unregulated advertising. This time distancing raises new studies to contemporize the impact of the Internet, electronic media, and online reviews as criteria for choosing the plastic surgeon and determining its influence on the decision-making process.

## COLLABORATIONS

<b>SPR</b>	Analysis and/or data interpretation, Conception and design study, Conceptualization, Data Curation, Funding Acquisition, Methodology, Project Administration, Resources, Supervision, Visualization, Writing - Original Draft Preparation, Writing - Review & Editing
<b>RFJ</b>	Final manuscript approval, Project Administration, Supervision
<b>AMC</b>	Final manuscript approval, Writing - Review & Editing

## REFERENCES

1. Consuela MG. Is it deontologically correct to promote your medical services? An ethical approach on medical marketing. *Rom J Ophthalmol.* 2018 Out/Dez;62(4):251-2.
2. Reputation (US). Healthcare consumer survey: the impact of online reviews on selecting providers [Internet]. Redwood City: Reputation; 2018; [acesso em 2019 Abr 24]. Disponível em: <https://www.reputation.com/resources/white-paper/healthcare-consumer-survey-the-impact-of-online-reviews-on-selecting-providers/>
3. Denecke K, Bamidis P, Bond C, Gabarron E, Househ M, Lau AYS, et al. Ethical issues of social media usage in healthcare. *Yearb Med Inform.* 2015 Ago;10(1):137-47.
4. Schwartz LM, Woloshin S. Medical marketing in the United States, 1997-2016. *JAMA.* 2019 Jan;321(1):80-96.
5. International Society of Aesthetic Plastic Surgery (ISAPS). Global statistics: 2017 full global results [Internet]. West Lebanon: ISAPS; 2017; [acesso em 2019 Abr 24]. Disponível em: <https://www.isaps.org/medical-professionals/isaps-global-statistics/>

6. Araújo LRR, Auersvald A, Gamborgi MA, Freitas RS. Perfil do cirurgião plástico paranaense. *Rev Bras Cir Plást.* 2013 Mar;28(1):10-9.
7. Cho MJ, Furnas HJ, Rohrich RJ. A primer on social media use by young plastic surgeons. *Plast Reconstr Surg.* 2019 Mai;143(5):1533-9.
8. Zwier S. "On the doctor's orders": a pilot study of the effects of website marketing for medical specialist providers under gatekeeping arrangements. *Health Mark Q.* 2017 Out/Dez;34(4):233-46.
9. Araujo LRR, Paula DR, Freitas RS, Busato LS, Silva AD. Fatores determinantes na escolha de um cirurgião plástico. *Rev Bras Cir Plást.* 2018;33(4):541-52.
10. Pires VC, Taborianski MM, Neves MR. O desenvolvimento do mix de marketing em clínicas e consultórios da área de saúde. *Rev Interd Marketing.* 2015;2(2):50-64.
11. Eysenbach G. Medicine 2.0: social networking, collaboration, participation, apomediation, and openness. *J Med Internet Res.* 2008 Ago;10(3):e22.
12. Yahanda AT, Lafaro KJ, Spolverato G, Pawlik TM. A systematic review of the factors that patients use to choose their surgeon. *World J Surg.* 2016 Jan;40(1):45-55.
13. Ortiz SE, Rosenthal MB. Medical marketing, trust, and the patient-physician relationship. *JAMA.* 2019 Jan;321(1):40-1.
14. Marsidi, N, Van Den Bergh MW, Luijendijk RW. The best marketing strategy in aesthetic plastic surgery: evaluating patients' preferences by conjoint analysis. *Plast Reconstr Surg.* 2014 Jan;133(1):52-7.
15. Galanis C, Sanchez IS, Roostaeian J, Crisera C. Factors influencing patient interest in plastic surgery and the process of selecting a surgeon. *Aesthet Surg J.* 2013 Mai;33(4):585-90.
16. Instituto Brasileiro de Geografia e Estatística (IBGE). Pesquisa das características étnico-raciais da população – PCERP 2008 [Internet]. Rio de Janeiro: IBGE; 2008; [acesso em 2019 Abr 24]. Disponível em: <https://www.ibge.gov.br/estatisticas/sociais/populacao/9372-caracteristicas-etnico-raciais-da-populacao.html?=&t=publicacoes>
17. Instituto Brasileiro de Geografia e Estatística (IBGE). Pesquisa de Orçamentos Familiares (POF) 2002-2003: prevalência do excesso de peso na região Centro-Oeste [Internet]. Rio de Janeiro (RJ): IBGE; 2019; [acesso em 2019 Abr 24]. Disponível em: <https://www.ibge.gov.br/estatisticas/sociais/justica-e-seguranca/19877-2002-2003.html?=&t=resultados>
18. Kaoutzanis C, Winocour J, Yeslev M, Gupta V, Asokan I, Roostaeian J, et al. Aesthetic surgical procedures in men: major complications and associated risk factors. *Aesthet Surg J.* 2018 Mar;38(4):429-41.
19. Gupta V, Winocour J, Rodriguez-Feo C, Bamba R, Shack RB, Grotting JC, et al. Safety of aesthetic surgery in the overweight patient: analysis of 127,961 patients. *Aesthet Surg J.* 2016 Jun;36(6):718-29.

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