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Community perception of cosmetic surgeries side effects at Taif city KSA

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cosmetic surgery can be much hard than standard surgery. Many of these treatments are carried out in a surgical facility or clinic's operating room. This isn't a major issue for the majority of patients. Staying in an intensive care unit and a facility with ample resources for extremely unwell patients can make a significant difference in outcomes for patients who become critically ill after surgery. To assess the perception of Saudis toward side effects of a cosmetic surgery. A descriptive-community-based study was conducted among people who are doing, or undergoing cosmetic surgery in Taif, Saudi Arabia. The target population of this study were citizens of Taif city, male and female, whose ages ranged from 18 to 60 years, with a sample size of N = 1037 participants, by using a questionnaire modified from a previous study and distributed online. The findings of our study showed that 21.9% of the participants underwent some type of cosmetic surgery, with the participants aged between 19 to 39 years performing cosmetic surgery significantly more than other age groups (p=0.002). Also, participants who had a higher salary (more than 7000 Saudi riyals) and a higher level of education (graduate level and more) had a significantly better opinion that cosmetic surgery has become a necessity nowadays (p<0.05).The present study found a general lack of knowledge about the risks of cosmetic procedures and offers some insights into the Saudi population's awareness and perceptions of cosmetic surgical procedures. The study recommends it is necessary to seek the as assistance of the media in order to achieve broader coverage and more public awareness.

Keywords: Cosmetic surgery, perception, Side effects, KSA, Taif city.

INTRODUCTION

Cosmetic surgeries can be defined asan invasive medical operation to modify a client look rather than for medical grounds. Botox and dermal fillers are non-surgical cosmetic treatments that are used to calm or treat wrinkles without the need for surgery(Seo, Y. A., and Kim, Y. A. 2020). Surgical operation, including cosmetic ones, all have potential consequences such as: blood clots in the legs or lungs, especially if the patient is fat or has bleeding issues. Smoking also raises the risk of disease and slows the healing process. Pneumonia, blood clots, unusual fatalities, infections at the injection sites that increase scarring and necessitate more surgery, the buildup of fluid beneath the skin, and other surgical procedures are all potential consequences of surgical operations. And anesthetic-related problems, such as easy bleeding or heavy bleeding that necessitates a blood transfusion. Also, abnormal scarring caused by skin damage, surgical wound separation that may require further surgery, and nerve damage that may be permanent. Numbness and tingling are present (Seo, Y.A, and Kim, Y.A2020).

Like other types of surgery, cosmetic surgery has dangers. Cosmetic surgery can result in a variety of consequences, from ugly or unnatural outcomes to scarring or death. Many individuals wrongly believe that cosmetic surgery and other selected (optional) operations are not as dangerous as other forms of surgery. All operations, including minor dental procedures, have the potential for catastrophic consequences. Furthermore, general risks of surgery, Anesthesia-related problems are always a potential.(Li, Z., and Lee, M. S. 2020).

Number of surgical and non-surgical cosmetic procedures has surged in recent years. Saudi Arabia is ranked 22nd among the 25 nations with the greatest proportion of cosmetic surgery in the world, according to a survey by the International Society of Aesthetic Plastic Surgeons.(Almasri, R. A et al. 2019).

Cosmetic surgery has climbed by 446 percent since 1997, based on the American Society for Aesthetic Plastic Surgery, and by 8% in 2007. In the United Kingdom, the

trend is similar. Between 2004 and 2005, the British Association of Cosmetologically Cosmetic Surgeons reported a 34% rise in operations. These surveys and polls were done across Western populations to analyze public knowledge and comprehension of cosmetology treatments, as well as their prevalence in the United States, to measure communities. Unfortunately, the study is scarce on the rise of cosmetic techniques in the Middle East, particularly in Saudi Arabia.(Almasri, et al. 2019).

The findings of the (Rola Abdulmoti Almasri et al. 2019). study revealed the acceptance of cosmetic procedures in Saudi society as 55.4% of Saudi women underwent cosmetic procedures, while in the United States only 24.1% of women perform such procedures. Study conducted by(Almasri, R.A.) 54% percent of those who did not undergo it as they did not require cosmetic surgery did so for financial reasons, while 9.4 percent did it for social reasons. Consider the people who have cosmetic procedures.

When a patient is unaccustomed with surgery, cosmetic surgery can be much hard than standard surgery. Many of these treatments are carried out in a surgical facility or clinic's operating room. This isn't a major issue for the majority of patients. Staying in an intensive care unit and a facility with ample resources for extremely unwell patients can make a significant difference in outcomes for patients who become critically ill after surgery. (Li, Z., and Lee, M. S.2020).

MATERIALS AND METHODS

Study design:

A descriptive-community-based study was conducted among people who are doing, or undergoing cosmetic surgery in Taif, Saudi Arabia.

Setting: population of the city of Taif in Makkah region, western Saudi Arabia.

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Study population:

The target population of this study were citizens of Taif city, male and female, whose ages ranged from 18 to 60 years.

Sample: Convenience non-random sampling included (N = 1037) participants.

Instrument:

In this research, we use a questionnaire that was published by "Opeyemi Adeniyi Adedeji, Ganiyu OladiranOseni, and Peter Babatunde Olaitan" in their study "Awareness and Attitude of Healthcare Workers to Cosmetic Surgery in Osogbo, Nigeria, 2014". The authors approved the use of this questionnaire in this study. The questionnaire consists of three parts: the first part includes biographical data; the second part measures information and awareness about cosmetic surgery; and the last part measures attitudes and dispositions towards cosmetic surgery. We modified this questionnaire by focusing on two parts. The first includes biographical data, and the second includes measuring information and awareness related to cosmetic surgery. Some questions related to attitudes have been modified to fit the objectives and outcomes of this study. And we made the questionnaire more precise in some of the questions to detect the extent of our participants' perceptions.

Data collection plan:

The data collected by a standardized, close-ended, and open-ended questionnaire and it is distributed online.

Ethical consideration:

The study had obtained the ethical clearance from ethical committee at Al -Taif University No (HAO-02-T-105) before data collection. No potential identifiers such as name, email or phone no. asked from the participants and the consent was asked at the beginning of the questionnaire.

Message for explaining the major aim of the research was written at the beginning of the survey in order to give the participants clarifications about the research. By agreeing to answer the survey, that has considered as approval of the participants to involving in the study. Additionally, all of the collected data were kept with the researchers in order to protect persons' confidentiality who involved in this study

RESULTS AND DISCUSSION

The data analysed by computer (SPSS program-25), and presented in the form of simple frequency, tables, and graphs. Statistical significance analysis performed using Chi – test.

Table 1: The age distribution of the study sample (n=1037)

	Frequency	Percent
more than 61	1	.1
less than 18	140	13.5
19-39	816	78.7
40-60	80	7.7
Total	1037	100.0

Shows that 0.1% of study sample is more than 61 years old. 7.7% of them is between 40-60 years old. 13.5% is less than 18 years old.78.7% is between 19-39 years old.

Table 2: The gender distribution among the study sample (n=1037)

		Frequency	Percent
	male	99	9.6
	female	938	90.4
Total		1037	100.0

Shows that the gender distribution among study sample is

9.6% male. And 90.4% female.

Table3: The occupational status of the study sample (n=1037)

		Frequency	Percent
	there is	175	16.85
	there is no	862	83.15
Total		1037	100.0

Shows that 16.85% of study sample have an occupation. While 83.15% of them have no occupation.

Table 4: The educational level of the study sample(n= 1037)

		Frequency	Percent
	Illiterate	2	.2
	Intermediate	41	3.974
	high school	238	22.975
	University	721	69.475
	Postgraduate	35	3.375
Total		1037	100.0

Shows that the education level of the sample is 69.475% for university and high school is 22.975%, intermediate is 3.974%, postgraduate is 3.375% and illiterate is 2%.

Table 5: The monthly income of the study sample (n=1037)

		Frequency	Percent
	Less than 2000	704	67.8
	2000-7000	204	19.7
	More than 7000	129	12.5
Total		1037	100.0

Shows that 67.8% of study sample income is less than 2000 and 19.7% between 2000-7000 and is 12.5% more than 7000.

Table 6: The number of people from study sample who had undergo cosmetic surgery (n=1037)

		Frequency	Percent
	yes	996	96.05
	no	41	3.95
Total		1037	100.0

Shows that 96% of the study sample they had undergo cosmetic surgery and 3.9% they have never had cosmetic surgery before.

Table 7: Distribution of relatives or friends of the study sample who underwent or not cosmetic surgery before (n=1037)

		Frequency	Percent
	yes	782	75.4
	no	255	24.6
Total		1037	100.0

Shows that 75.4% of the friends and relatives of the study sample underwent cosmetic surgery, while 24.6% represents the percentage of those who do not have relatives or friends who underwent cosmetic surgery from the study sample.

Table 8 :The types of cosmetic surgeries done among the study sample (n=224)

Frequency	Percent	
rhinoplasty	115	11.1
filler	49	4.8
abdominoplasty	4	.4
Botox	2	.2
gastric sleeve	6	.6
hair planting	3	.3
Body contouring and sculpting	12	1.2
teeth and gums	3	.3
ear surgery	1	.1
Liposuction	4	.4
silicon injection	2	.2
hand surgery	2	.2
ganglion cyst removal	1	.1
cosmetic burns	4	.4
Vaginal surgery	4	.4
Add Dimples and remove moles	4	.4
skin transplant	6	.6
cosmetic surgery after accidents	2	.2
Total	224	21.9

Shows approximately half of the cosmetic surgeries performed are rhinoplasty (11.1%), 4.8% of fillers, and body contouring and sculpting (1.2%). Sleeve gastrectomy and skin transplantation are similar in their percentages of 0.6%. Abdominoplasty, liposuction, cosmetic burns, vaginal surgery, and add Dimples and removing moles are similar in their percentages 0.4%. Hair planting, teeth and gums are similar in their percentages of 0.3%. Botox, silicon injection, hand surgery, and cosmetic surgery after accidents are similar in their percentages of 0.2%. Ear surgery, and ganglion cyst removal are similar in their percentages of 0.1%

Table 9: The existence difference between cosmetic surgery and other types of surgery (n=1037)

		Frequency	Percent
	yes	276	26.6
	no	761	73.4
Total		1037	100.0

Shows 73.4% of the study sample denied the existence of a difference between cosmetic surgery and the rest of the other procedures, while 26.6% confirmed the existence of a difference.

Table 10: The number of people from study sample think there are complications associations with cosmetic surgery(n=1037)

	Frequency	Percent
yes	61	5.85
no	976	94.15
Total	1037	100.0

Show that 94.15% of the study sample they don't think

there are complications from cosmetic surgery and 5.85% they think there are complications from cosmetic surgery.

Table 11: The number of people from the study sample who were informed of the complications before undergoing cosmetic surgery (n=1037)

	Frequency	Percent
yes	551	53.1
no	486	46.9
Total	1037	100.0

Show that 53.1% of the study population they were informed of the complications before undergoing cosmetic surgery and 46.9% they were not informed of the complications before undergoing cosmetic surgery.

Table 12: The type of Physical complications of cosmetic surgery from the point of view of the study sample population (n=1037)

	Frequency	Percent
Unexpected reactions due to anesthesia	32***1***	12.72
infection	3***10***	9.93
scaring	23***1***	11.86
bleeding	4***10***	10.02
blood clotting	9***10***	10.5
Nerve damage	5***7***	7.2
fluid buildup	7***10***	10.3
Separation or incision at the site of the operation	2***10***	9.8
Swelling	58***1***	15.2
Allergic reaction	6	0.57
Hair loss	4	0.38
Wrinkles	***6***	0.57
Tiredness	1	0.09
Features changes	1	0.09
IDK, I haven't had any cosmetics	5	0.48
Individualized effects	1	0.09
Total	1037	100.0

The table shows that swelling is the most common type of complication which present 15.2%. The unexpected reactions represent 12.72% due to anesthesia,11.86% scaring,10.5% blood clotting and 10.3% fluid buildup. Also 10.02% of complications that occur bleeding, 9.93% infection and 9.8% separation or incision at the site of the operation. 7.2% a complications was nerve damage, wrinkles and allergic reactions are similar in their percentages 0.57%. The percentage of those who did not know or did not perform previous cosmetic surgery is 0.48% and 0.38% hair loss. Tiredness, features changes and individualized effects are similar in their percentages 0.09%.

Table 13: The type of psychological and social complications of cosmetic surgery from the point of view of the study sample (n=1037)

	Frequency	Percent
loss of self-confidence	129	12.44
dissatisfaction with the results	140	13.5
Isolation	104	10.02
Depression	103	9.93
Anxiety	124	11.95
social withdrawal	102	9.83
Cosmetic surgery addiction	162	15.62
disorder of social relationships	51	4.91
self-blame	112	10.8
I don't know	4	.4
self love	4	.4
Only the days of the first operation of excessive swelling	1	.1
Psychiatric disorder due to anesthesia	1	.1
Total	1037	100.0

Shows cosmetic surgery addiction is the most common type of complication, accounting for 15.62% of all complications related to cosmetic surgery procedures performed. The loss of self-confidence is 12.44%, anxiety is 11.95%, self-blame is 10.8%, isolation is 10.02%, depression is 9.93%, social withdrawal is 9.83%, and disorder of social relationships is 4.91%. The proportion of those who had no knowledge of the psychological complications of cosmetic surgery and self-love was similar at 0.4%. The lowest percentage was psychiatric disorders related to excessive swelling in the first days of the operation, and psychiatric disorders caused by anesthesia were similar at 0.1%.

Table 14: The source of cosmetic surgery information for the study sample (n=1037)

	Frequency	Percent
Friends and relatives	180	17.35
TV	116	11.18
Internet	507	48.89
physician	137	13.21
Education	84	8.1
Experience	6	.6
personal opinions	5	.5
celebrities	2	.2
Total	1037	100.0

Shows that the most common source of information about cosmetic surgery is the Internet, which accounts for 48.89% of the total. Friends and relatives are 17.35%, physicians are 13.21%, TV is 11.18%, education is 8.1%, experience is 0.6%, personal opinions are 0.5%, and celebrities make up 0.2%.

Table 15: The number of people from the study sample who had suffered from complications of cosmetic surgery before (n=1037)

	Frequency	Percent
Yes	83	8.0
No	25	2.41
I have not had surgery before	929	89.59
Total	1037	100.0

Shows that 89.59% had never had cosmetic surgery before, 8% had suffered from complications of cosmetic surgery before, and 2.41% hadn't suffered from complications of cosmetic surgery.

Table 16:The distribution of physical complications experienced by the study participants (n=20)

	Frequency	Percent
Bleeding	7	.7
Poor breathing	1	.1
Blindness	1	.1
Fatigue	2	.2
I didn't do the operation	4	.4
Wound not healed	1	.1
Anemia	2	.2
Scarring	2	.2
Total	20	2.0

Shows that bleeding is the most common physical complication, which accounts for 0.7%. Those who did not perform the operation represent 0.4%, fatigue, scarring and anemia are similar in their percentages of 0.2%, as well as 0.1% for poor breathing, blindness, and wounds that do not heal.

Table 17: The impact of awareness of complications on individuals undergoing cosmetic surgery(n=1037)

	Frequency	Percent
yes	184	17.75
no	853	82.25
Total	1037	100.0

It shows that 17.75% of the sample confirms that awareness of complications resulting from cosmetic surgery affects a person's subjection to it, while 82.5% do not believe that awareness of complications affects a person's decision to undergo cosmetic surgery.

Table 18: The extent in which the people from the study sample see cosmetic surgery as a necessary nowadays (n=1037) :

	Frequency	Percent
yes	789	76.1
no	248	23.9
Total	1037	100.0

The table shows that 76.1% of the study sample see it is necessary nowadays, while 23.9% do not.

Table 19: The number of the people from the study sample who had think that the cosmetic surgery is socially acceptable (n=1037)

	Frequency	Percent
yes	365	35.2
no	672	64.8
Total	1037	100.0

Shows that 35.2% of the study sample think that the cosmetic surgery is socially acceptable, while 64.8% do not.

Table 20: The extent in which the people from the study sample think cosmetic surgery as socially acceptable (n=1037)

	Frequency	Percent
Well accepted	231	22.3
moderately accepted	559	53.9
Unacceptable	247	23.8
Total	1037	100.0

Shows that 22.3% of the study sample think that the cosmetic surgery is well accepted, and 53.9% of the study sample think that it is moderately accepted, while 23.8% of the study sample think that it is unacceptable.

Table 21: The classes in which people think cosmetic surgery is more acceptable. (n=1037)

	Frequency	Percent
High class	705	67.98
Middle class	287	27.68
lower class	45	4.34
Total	1037	100.0

Shows that 67.98% of the study sample thinks that the cosmetic surgery is acceptable in the high class, and 27.68% of the study sample thinks that the cosmetic surgery is acceptable in the middle class, while 4.34% of the study sample think it is acceptable in the lower class.

Table 22: Participants' opinions about the community's need for more awareness about cosmetic surgery and its complications (n=1037)

	Frequency	Percent
no	128	12.3
Yes	909	87.7
Total	1037	100.0

Show that 87.7% of the study sample believe that the community needs more awareness, while 12.3% think that the community does not need more awareness.

Table 23: The platforms recommended by the study sample to be aware of (n = 1037)

	Frequency	Percent
Twitter	49	4.7
Snap chat	37	3.6
Internet	18	1.7
Facebook	12	1.2
Tik tok	15	1.4
Social media	842	81.2
Ministry of health	18	1.7
Instagram	3	.3
Education, schools, government curricula	4	.4
I do not know	8	.8

Hospitals and clinics	3	.3
Internet and TV	3	.3
Other, unrelated to the question	10	1.0
Courses, seminars and awareness programs	1	.1
YouTube	2	.2
Doctors and consultants	3	.3
Awareness platform for plastic surgeries	4	.4
health volunteering platform	1	.1
WhatsApp	2	.2
Telegram	1	.1
streets advertisements	1	.1
Total	1037	100.0

Show that 81.2% suggested that awareness should take place through social media platforms, 4.7% recommend using Twitter, 3.6% recommend using Snapchat, 1.7% recommend using the Internet and 1.7% recommend that awareness be carried out through the Ministry of Health, 1.4% mention Tech Tok and 1.2% mention Facebook, while 1% choose others, 8% choose I don't know, 0.4% recommend education, schools and curricula, 0.4% recommend an awareness platform for plastic surgery, 0.3% see Instagram as an appropriate platform 0.3% recommend that it be done through doctors and consultants, 0.3% mention hospitals and clinics, 3% mention internet and television, 0.2% say WhatsApp is a good platform, 0.2% mention YouTube, 0.1% mention health volunteering platforms and 0.1% mentioned the telegram, 0.1% mentioned the courses, seminars and awareness programs.

Table 24: Reasons that may prompt the sample members to undergo cosmetic surgery (n=1037)

	Frequency	Percent
Impress the partner	10	1.0
Bullying	41	4.0
Birth defect repair	219	21.1
The effect of the surrounding environment	574	55.4
psychological pain	15	1.4
Desire to reach perfection	124	12.0
Impact of accidents and injuries	8	.8
Beauty increase	5	.5
Paranoia	1	.1
Physiological effects	1	.1
Dissatisfaction with plastic surgery	1	.1
There is no reason	17	1.6
Delaying aging	1	.1
Routine Change	2	.2
Cosmetic surgery experience	3	.3
Getting rid of obesity and its effects	1	.1
I'm not thinking of getting plastic surgery	11	1.1
Increase self-confidence	2	.2
birth defects	1	.1
Total	1037	100.0

Show that 55.4% of the study sample are motivated by the influence of the surrounding environment to perform cosmetic surgery, 21.1% are driven by birth defects, 12% are driven by the desire for perfection, and 4% say bullying, 1.6% see that there is no reason for them to perform it. Psychological pain prompted 1.4 percent of the study sample, 1% wanted to impress the partner, 0.8 percent mentioned the impact of accidents and injuries, 0.5 percent thought that the desire to increase beauty was an important motive, 0.3 percent wanted the experience, 0.2% state that changing the routine is a factor that might push them to perform it, 1% state paranoia and 1% say that the psychological impact is important, 1% state their dissatisfaction with cosmetic surgeries.

Table 25: Cross tabulation between education level and information acquired about the complications before undergoing cosmetic surgery.

Chi-Square Tests 4-11			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.969[a]	4	.742
Likelihood Ratio	1.963	4	.743
Linear-by-Linear Association	.589	1	.443
N of Valid Cases	690		
2 cells (20.0%) have expected count less than 5. The minimum expected count is .91.			

It shows that there is no statistical association between educational level and the information acquired about the complications before undergoing cosmetic surgery.

Table 26: Cross tabulation between age and having cosmetic surgery

Chi-Square Tests 1-6			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	10.347[a]	3	.016
Likelihood Ratio	12.513	3	.006
Linear-by-Linear Association	9.553	1	.002
N of Valid Cases	1013		
4 cells (50.0%) have expected count less than 5. The minimum expected count is .03.			

It shows that there is a statistical association between age and having cosmetic surgery.

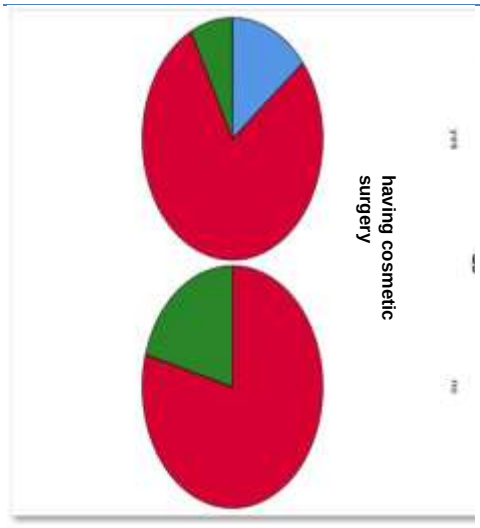

Figure 1: shows the participant's age and having cosmetic surgery.

Table 27: Cross tabulation between occupation and the class in which they think cosmetic surgery is more acceptable.

Chi-Square Tests 3-21			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.058[a]	2	.048
Likelihood Ratio	5.819	2	.055
Linear-by-Linear Association	4.068	1	.044
N of Valid Cases	973		
0 cells (.0%) have expected count less than 5. The minimum expected count is 6.66.			

It shows that there is a statistical association between occupation and the class in which they think cosmetic surgery is more acceptable.

Table 28: Cross tabulation between the level of education and the thought that cosmetic surgery has become a necessity nowadays

Chi-Square Tests 4-18			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	12.840[a]	4	.012
Likelihood Ratio	11.489	4	.022
Linear-by-Linear Association	2.450	1	.118
N of Valid Cases	973		
a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is .44.			

It shows that there is a statistical association between the level of education and the thought that cosmetic surgery has become a necessity nowadays.

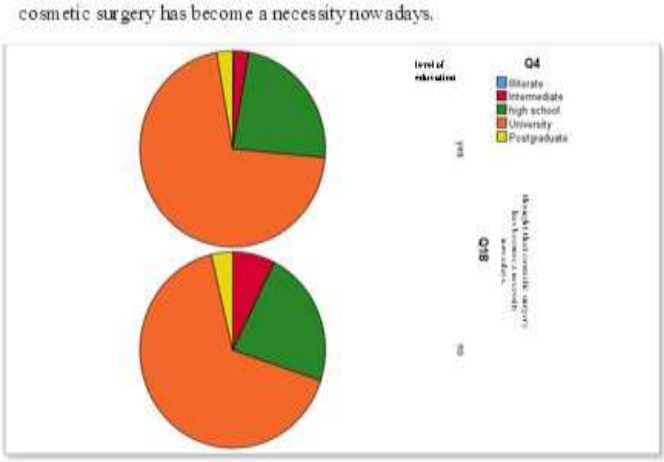

Figure 2: shows the participant's the level of education and the thought that cosmetic surgery has become a necessity nowadays.

Table 29: Cross tabulation between monthly income and the class in which they think cosmetic surgery is more acceptable.

Chi-Square Tests 5-21			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.208[a]	4	.056
Likelihood Ratio	8.869	4	.064
Linear-by-Linear Association	9.176	1	.002
N of Valid Cases	973		
a. 1 cells (11.1%) have expected count less than 5. The minimum expected count is 4.97.			

It shows that there is a statistical association between monthly income and the class in which they think cosmetic surgery is more acceptable

Table 30: Cross tabulation between monthly income and the thought that cosmetic surgery has become a necessity nowaday

Chi-Square Tests 5-18			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.627[a]	2	.036
Likelihood Ratio	6.440	2	.040
Linear-by-Linear Association	4.383	1	.036
N of Valid Cases	973		
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 26.20.			

It shows that there is a statistical association between monthly income and the thought that cosmetic surgery has

become a necessity nowadays.

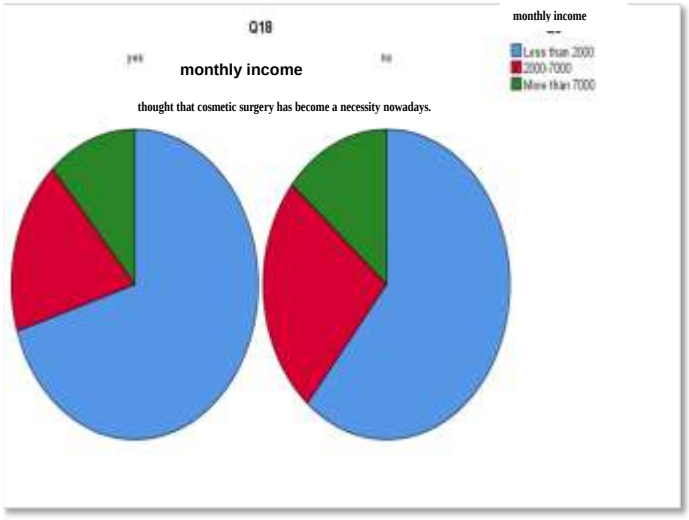

Figure 3: shows the participant's monthly income and the thought that cosmetic surgery has become a necessity nowadays.

Table 31: Cross tabulation between the having cosmetic surgery and the physical complications of cosmetic surgery

Chi-Square Tests 6-12			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	34.759[a]	15	.003
Likelihood Ratio	17.302	15	.301
Linear-by-Linear Association	1.063	1	.302
N of Valid Cases	164		
26 cells (81.3%) have expected count less than 5. The minimum expected count is .04.			

It shows that there is a statistical association between having cosmetic surgery and the physical complications of cosmetic surgery.

Table 32: Cross tabulation between the having cosmetic surgery and psychological and social complications of cosmetic surgery

Chi-Square Tests 6-13			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	28.885[a]	12	.004
Likelihood Ratio	15.544	12	.213
Linear-by-Linear Association	.960	1	.327
N of Valid Cases	184		
a. 21 cells (80.8%) have expected count less than 5. The minimum expected count is .05.			

It shows that there are is a statistical association between the having cosmetic surgery and psychological and social complications of cosmetic surgery.

Table 33: Cross tabulation between the thought of whether or not there are complications associated with cosmetic surgeries and the source of information about cosmetic surgeries.

Chi-Square Tests 10-14			
	Value	**df**	**Asymptotic Significance (2-sided)**
Pearson Chi-Square	21.535[a]	8	.006
Likelihood Ratio	17.778	8	.023
Linear-by-Linear Association	4.709	1	.030
N of Valid Cases	555		
13 cells (72.2%) have expected count less than 5. The minimum expected count is .04.			

It shows that there is a statistical association between the thought of whether or not there are complications associated with cosmetic surgeries and the source of information about cosmetic surgeries.

Table 34: Cross tabulation between the psychological and social complications of cosmetic surgery and the complications after having had cosmetic surgery before.

Chi-Square Tests 13-15			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	49.588[a]	24	.002
Likelihood Ratio	20.716	24	.655
Linear-by-Linear Association	.490	1	.484
N of Valid Cases	184		
a. 32 cells (82.1%) have expected count less than 5. The minimum expected count is .03.			

It shows that there is a statistical association between the psychological and social complications of cosmetic surgery and the complications after having had cosmetic surgery before.

Table 35: Cross tabulation between the complications after having had cosmetic surgery before and how the awareness of complications affects individuals' susceptibility to cosmetic surgery

Chi-Square Tests 15-17			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.048a	2	.011
Likelihood Ratio	7.821	2	.020
Linear-by-Linear Association	9.024	1	.003
N of Valid Cases	973		
a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 2.34.			

It shows that there is a statistical association between the complications experienced by people who have had cosmetic surgery before and how the awareness of complications affects individuals' susceptibility to cosmetic surgery.

Table 36: Cross tabulation between the source of information about cosmetic surgery and the thought that society needs more awareness about cosmetic surgery and its complications.

Chi-Square Tests 14-22			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	19.601[a]	8	.012
Likelihood Ratio	17.681	8	.024
Linear-by-Linear Association	.566	1	.452
N of Valid Cases	537		
12 cells (66.7%) have expected count less than 5. The minimum expected count is .13.			

It shows that there is a statistical association between the source of information about cosmetic surgery and the thought that society needs more awareness about cosmetic surgery and its complications.

DISCUSSION

The American Society for Aesthetic Plastic Surgery reported an increase of 521% in cosmetic procedures since 2014. According to a recent report, surgical cosmetic procedures increased by 54%, and non-surgical procedures were up by 44%, while people aged between 36-50 years performed 41% of total cosmetic surgeries [American Society for Aesthetic Plastic Surgery, 2021; Cosmetic Surgery National Data Bank Statistics, 2018]. The findings of our study showed that 21.9% of the participants underwent some type of surgical cosmetic surgery, where the most commonly performed surgery was rhinoplasty. This is lesser compared to the findings of a study done in the United States, where 36 % of the participants had a surgical cosmetic facial procedure and 75% had at least one minimally invasive cosmetic facial procedure (Moayer et al. 2018). According to a survey conducted in Riyadh, Saudi Arabia, nearly half (47.6%) of the study participants were willing to undergo minor cosmetic surgery (Morait et al. 2019). Health care practitioners can better understand why people undergo cosmetic surgery and predict how such treatments will affect their self-esteem by understanding the elements that influence self-esteem (Arab et al. 2019). Only a small percentage of the participants believed that there is a difference between cosmetic surgery and other types of surgery, and the majority of the participants (94.15%) believed that there are no complications associated with cosmetic surgeries. A recent study done among female youths in the United Arab Emirates (UAE) showed that 67% of the participants believed that there is a difference between cosmetic surgery procedures and other surgical procedures (Amiri et al. 2021). Cosmetic surgery side effects and problems are widespread and have been regularly described in recent studies (Xie et al. 2021). In order to minimize unwarranted alarm and fear of the adverse effects of cosmetic surgery, it is vital to deliver necessary information through channels and methods that are suitable, including professionals in the field. In our study, participants aged between 19 to 39 years performed cosmetic surgery significantly more than other age groups (p=0.002). This is in contrast to the findings of another study done in the UAE, where almost half of all patients who underwent cosmetic surgical procedures were between the ages of 35 and 50 (Amiri et al. 2021).

Participants who had a higher salary (more than 7000 Saudi riyals) and a higher level of education (graduate level and more) had a significantly better opinion that cosmetic surgery has become a necessity nowadays (p<0.05). This is supported by findings of another study done in the USA, where participants who had annual incomes over $125,000 pursued cosmetic surgery compared to participants with lesser salaries (Ligh et al. 2020). This could be due to the fact that people with high levels of education feels that facial and body beauty is important for their advancement in the society. Also, there appears to be no need to worry about the cost of the procedure or post-surgical expenses for those who have cosmetic surgery. The participants of this study exhibited familiarity with information on cosmetic surgery on social media sites, such as Facebook, Instagram, and Snapchat. So, more medical experts should be proactive in disseminating information to the public in light of this. In the "response to the adverse effects of cosmetic surgery" category, this could lead to a positive change. Our findings showed that there is a statistically significant association between having cosmetic surgery and psychological and social complications of cosmetic surgery. The perception of cosmetic surgery is influenced by the quality and amount of information and communication with a medical practitioner, and the community and family play an essential part in the decision-making process (Fu et al. 2017; Redaelli et al. 2020). Our study findings support the above findings as they showed a statistically significant between the source of information provided and the thought that society needs more awareness about cosmetic surgery and its complications (p<0.05). In our study, those who underwent cosmetic surgery had a more favorable view of their safety and effectiveness than those who did not do any (p<0.05). This is in agreement with a study done among Chinese and Dutch women (Wu et al. 2022).

When looking for a surgeon to do this type of surgery, individuals may become confused due to the marketing efforts undertaken. As a result, experts in the field of cosmetic surgery are urged to conduct evidence-based online promotional and counseling activities. Cosmetic surgeons must accept their patients' concerns and views

on the concept of beauty, culture, or the social context in which they operate (Greywal et al. 2021). Prior to cosmetic surgery, patients must be adequately educated, and the number of sessions and time (weeks to months) needed to attain the desired results must be freely discussed. Treatment satisfaction is also influenced by the amount of information given to patients (Watchmaker et al. 2020). A higher frequency of participants in this study also advocated for thinking things through before undergoing cosmetic surgery and consulting with a medical professional along the way. Ensuring that patients are adequately educated prior to undergoing cosmetic surgery facilitates the reduction of patient complaints (Redaelli et al. 2020).

CONCLUSION

Surveys conducted via the Internet are susceptible to selection bias. People who choose to pay for procedures are likely to have biases that will affect their happiness and perception of outcomes. Since we required all participants to fill out a screening questionnaire, it is possible that only those who were strongly motivated to participate finished this stage, and hence our surveys did not represent a representative population. Additional bias may have been introduced by the survey's anonymity and self-reporting characteristics, as well as procedures that have not been carried out recently. Furthermore, neither questionnaire has been tested for validity .

CONFLICT OF INTEREST

The authors declared that present study was performed in absence of any conflict of interest.

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AUTHOR CONTRIBUTIONS

Add contribution of each author (with abbreviated name) here. For example Suheir.A.M.Sayed: designed and also wrote the manuscript. Mashael Alghamdi, Sahar Saud ,Manar Althobaiti and Afrah Alswat.,collected and interpretation of data for the article , Ruba Alsofyani, Bushra Alswat and Rouq Alotaibi performed the analysis, Mashael Alghamdi Shouq Alharthi drafted the article All authors read and approved the final version.

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