

# **The Social Comparison Theory in the Context of Cosmetic Plastic Surgery Advertising:**

**Predictors and Consequences of their Impact on Egyptian Women**

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## **Abstract:**

Women of variable ages are exposed to cosmetic procedures and plastic surgeries advertisings that portray idealistic images of beauty and show attractive women with ideal bodies that are difficult for most of them to have in a healthy and natural way, but they can achieve it through cosmetic plastic surgery (CPS). This type of surgeries comprises all surgical and nonsurgical aesthetic medical procedures that aimed at improving and reshaping structures of the body to improve the physical appearance and increase the body image satisfaction (American Academy, 2020). And based on many studies, exposure to cosmetic plastic surgery (CPS) advertising may impact women's attitudes towards cosmetic procedures and their decision to undergo CPS as well.

In a sample of 250 Egyptian Women, this study examined the relationship between CPS advertising exposure, social comparison as a mediating factor, and women's attitudes and behavior of undergoing CPS.

The current study argues that not all women expose to CPS advertising, but exposure from the beginning is affected by a number of socio-psychological factors, such as body image satisfaction, previous experience, self-esteem, the culture of their societies and level of acceptance and support of this type of surgeries. Moreover, the study suggested social comparison, a new predictor to the social comparison theory. It examines the impact of being exposed to CPS advertising on engaging in a comparison with the idealized model of beauty presented by the advertising and how may this comparison have a mediating role in affecting women's attitudes and behavior.

The results indicate that women who had aesthetic procedure show a high level of exposure to cosmetic plastic surgery ads, body image dissatisfaction, high level of social support, positive past experiences with CPS and the recognition of the wide spread of cosmetic procedures and plastic surgeries within the Egyptian society. It also argues a positive relationship between CPS advertising exposure and engaging in a comparison between one's current image and the idealized model of beauty presented by ads. This comparison proves its positive relationship with participants' behavior.

Moreover, based on the theory and results, the study suggests a model that helps aesthetic doctors and marketers to understand how they can develop marketing campaigns and affect costumers' behaviors.

### **Introduction:**

Recently, the body management concept has been discussed by many researchers as monitoring and manipulating of the visible features of the body that range from clothing, procedure of makeup, to plastic surgery and cosmetic procedure (Karamallah et al., 2018). Cosmetic plastic surgery (CPS) has been increased in most of the countries as they refer to any procedure to achieve what a person perceives to be in a more desirable appearance that involves changes to bodily features that are done by a doctor or a surgeon (Dean et al., 2018).

Even though plastic surgery came with World War I and World War II, which were concerned with reconstructing the appearance of soldiers affected by wars, this phenomenon continued in the post-war period, especially in the USA, as the Jewish or Italian Americans requested to look like less ethnic to merge in the American society (Brown & Klaassen, 2018). Then, throughout the past two decades,

there has been a rapid growth in CPS industries, and according to the International Society of Aesthetic Plastic Surgery (ISAPS) report in 2018, 23,266,374 million surgical and cosmetic procedures were performed worldwide with a 5.7% increase over 2017 (ISAPS, 2018). While the United States was ranked as the first place in the world for the CPS with 15.1% of worldwide total number/percentage, Egypt was ranked as the first place for Arab countries and the 19<sup>th</sup> worldwide for CPS with 1.2% of worldwide total number/percentage (ISAPS, 2018).

This increase in popularity and acceptance in the CPS field comes after a struggle to gain legitimacy based on a bad reputation that was reinforced mostly by unregulated aesthetic industry (Adams, 2012). Higgins & Wysong (2018) argued that the reasons behind this increase are that CPS has various emotional outcomes through changes to the self (i.e., pride, self-satisfaction, and subjective happiness) (Higgins & Wysong, 2018). Also, other factors are likely to contribute to this increase in the twentieth century, such as changes in social norms, increase of standardization among CPS practitioners, and the role of media in marketing and dealing with the body as a social and psychological product (Monks et al., 2021). Elliot argues that media is one of the key driving forces behind the increase of CPS as it portrays fame through celebrities and the concept of women who can buy beauty (Dean et al., 2018). Media has been criticized not only for presenting invasive plastic surgeries as relatively low risk, but also for emphasizing that they are common means of improving appearance and body satisfaction.

Although social comparison behaviors are pervasive in advertising, only a few studies have investigated the relationship between social comparison process, body satisfaction, and changing attitudes towards CPS. Also, there are still some issues that need to be studied, for example, do all individuals engage in social comparisons when exposing to idealized body images through ads? What type of information leads people to engage in comparison? How people evaluate themselves and with whom they compare themselves? Do they usually compare themselves with people with more positive traits, and do they ask themselves “how different are they?” It is conceivable that this comparison happens through offline and online – mediated communication.

Although the cosmetic plastic surgery practices have increased in the developing countries, the popularity of them must be understood within the context of each country's culture as it could be associated to power, wealth, social growth and gender norms. For example, a comparison study found that Colombian women were more acceptant of plastic surgery for social reasons, while American women were less acceptant of it and more likely to have it for personal reasons (Carrion et al., 2011).

This paper contributes to the ongoing debate among researchers on advertising and its socio-psychological effects in four ways.

**First**, since there has been a rapid growth in CPS industries worldwide, their number varies from country to country as Beulaygue (2014) argued, regional variations impact this phenomenon. This requires understanding the motives for the spread of this type of surgery in Egypt in terms of the socio-psychological context of Egyptian women.

**Second**, a series of studies pointed to media the responsibility of emphasizing the beauty stereotypes and the creation of body image dissatisfaction, and this motivates many doctors and marketers to take advantage of traditional and new media and direct large budgets to produce advertisements that urge women to undergo such surgeries. All above were reasons behind the study to identify the extent of the impact of advertisements on women's attitudes and the decision to undergo cosmetic surgery.

**Third**, this study adopts the social comparison theory that stated most of the time people are motivated to compare themselves with others whatever they are better, similar to them or less. Therefore, the important questions are: Do all women engage in a comparison process with the ideal models that appear in the advertisements? What are the socio-psychological factors that motivate women to involve into such a comparison? And finally, is the occurrence of this comparison essential for such surgeries?

**Fourth**, developing a model that doctors, marketers, and health media workers can benefit from to understand people's motives in this field and benefit from them, whether in encouraging the phenomenon or warning of some of the risks associated with it.

## **Theoretical Framework and Literature Review:**

### **1. Social Comparison Theory**

Usually, people are motivated to compare themselves with others. If others perform better, this may create negative feelings; because if they are perceived as inferior, the comparison will enhance self-evaluation and generate positive emotions. Arigo (2012) stated that social comparison occurs when individuals receive information about others' situations whether from direct contacts, conversations, verbal or visual communication and media (Arigo, 2012). This process was first illustrated in Festinger's work on social comparison theory in (1954) who argued that people have the drive to evaluate their opinions and capabilities automatically (Mussweiler & Ruter, 2003), and if they compare themselves with those who are similar to them, they will conclude to accurate evaluation of themselves (Eberlen et al., 2017). Many studies claimed that not all people engage in social comparison process but it depends on individual characteristics and preferences as self-esteem. Recent studies have concluded that social comparison has more negative consequences on high self-esteem individuals than those who have low self-esteem (Buunk & Mussweiler, 2001).

With the increase in the use of social media, the number of studies that try to link the engagement of individuals into social comparisons with what they expose to and its impact on them has increased. Haferkamp & Kramer (2011) were among the first to study the social comparison process on social media and they argued that participants who were exposed to superior profile pictures were less satisfied with their own bodies in comparison with those who were exposed to inferior profile pictures (Haferkamp & Kramer, 2011). Chou & Edge (2012) proved that using Facebook intensively was positively associated with the perception that "others have better lives or they are happier than me" (Chou & Edge, 2012). When Liu and others (2016) conducted their study on 163 adults, they found that participants' emotions were influenced by Facebook posts as people with high self-esteem would be happier receiving positive information than negative information from their close friends on Facebook, but the effect would be the opposite if the information was from a distant friend and there was no difference for people with low self-esteem (Liu et al., 2016).

In many studies, the theory of social comparison has proven its ability to explain the motives behind undergoing for cosmetic/

aesthetic procedures, as they assumed that by upward social comparisons, individuals may perceive themselves insufficient on an important domain, such as physical attractiveness, and may experience body dissatisfaction and start to think about what kind of behavior should be done in order to receive favorable attention, and if having plastic procedures would contribute to their body image satisfaction (Nabi, 2009; Durkin et al., 2007; Arnocky & Piche, 2014). By Chae (2019), through two-wave longitudinal survey that conducted in South Korea, social comparison theory was best to explain the impact of YouTube makeup tutorials on young females as it emphasizes its impact on outcome expectations and makeup consumptions (Chae, 2019). Moreover, Gesto's (2021) study on 305 Italian women argued that images of celebrities on Instagram are related positively to the acceptance of cosmetic surgery through the mediating process of social comparison (Gesto et al., 2021).

In many studies, body dissatisfactions were a result of engaging into the social comparison and a factor that impacts the decision-undergoing for a surgery. In Scully (2020) study, body dissatisfaction was significantly related to upward social comparisons with various female targets and social comparisons which significantly mediated the relationship between time spent in looking at photos of friends online and body dissatisfaction (Scully et al., 2020). Despite the fact that many studies concluded the relationship between social comparison and body image dissatisfaction, Berg & others (2002) could not find out whether this dissatisfaction stemmed from their perception about female desire in a male partner or from their engagement in social comparison processes (Berg et al., 2002). Most of the studies did not address the impact of body dissatisfaction on exposure to the media or engaging into comparisons, which is what this study aims at.

Based on the theory, the following hypotheses were developed:

- Exposure to cosmetic plastic surgery (CPS) advertising is positively associated with engagement in a comparison with the idealized model of beauty presented by the advertising.
- Engaging in a comparison process is positively related to the women's behavior in undergoing CPS surgery.

## 2. Media Content & Cosmetic Plastic Surgery Advertising.

Feminist studies in the early 1990s argued that women undergoing cosmetic plastic surgery (CPS) are the 'victims' of media which portrays female beauty stereotypes (Dean et al., 2018). A series of studies pointed to media the responsibility of emphasizing the beauty stereotypes and the creation of body image dissatisfaction (Makarim, 2020). Lavin, Sweeney & Wagner (1999) were among the first to examine this relationship; they found out that men who are exposed to sexist advertisements perceived themselves as less muscular and attractive than those who are not exposed to them (Lavin, Sweeney & Wagner, 1999). This result was assured by Morrison & Morison's study (2003) that indicates that college male students who are exposed to media containing idealized images of body in fitness magazine are positively correlated with their desire for having muscularity (Morrison & Morison's, 2003). And for this reason, Fredrick (2005) argued that two popular men's magazines used muscular male body on the cover of issues published between 2002 and 2004 (Fredrick et al., 2005).

Though many studies emphasized the impact of media and CPS advertising on people's decisions to undergo aesthetic procedures, some studies concluded that media and advertising do not impact all of the people in the same way, as it sometimes depends on country's culture and regional variations. For example, Beulaygue (2014) pointed out the impact of regional variations, as the study compared between three telenovelas – novels transmitted by television in the form of serials – in Colombia, the USA and Spain. It concluded different views on plastic procedures. While the Colombian series ended with warning the audience from the negative consequences of plastic surgery, the American series emphasized that it is a means to attain popularity and friendships. Finally, the Spanish serials did not pay attention to the issue (Beulaygue, 2014). Moreover, Carrion's (2011) comparison study argued that Colombian women were more acceptant of plastic surgery for social reasons, while American women were less acceptant of it and more likely to have it for personal reasons (Carrion et al., 2011).

### **But how media content and advertising impact attitudes towards CPS and the behavior?**

Many studies tried to find out how media and CPS advertising impact

attitudes and behavior regarding plastic cosmetic procedures decision. Some suggested that media content and advertising impact body image negatively (Ashikali et al., 2017) and the provided information and images create a state of body dissatisfaction (Morrison et al., 2004; Polonsky et al., 2008; O'Connor, 2007; Haas, 2007) that impacts their attitudes towards the surgery. Moreover, the type of information used in advertising is an influential factor, as Kaminshi's (2010) content analysis study concluded that promotional offers increased in CPS advertising in US magazines between 1985 and 2004, and information on risks associated with the surgery was represented in less than 10% of the ads and did not differ over the same period of the study, and this influenced attitudes and behavior to undergo aesthetic procedures (Kaminshi, et al., 2010). Moreover, many studies suggest that CPS patients are increasingly using the internet and social media for health-related information before their consultation to choose their providers (Dorfman et al., 2018), and this is why surgeons and dermatologists must seek out patients as much as patients seek out surgeons and dermatologists (Nayyar et al., 2019).

Surprisingly, a number of studies reduced the importance of CPS advertising and its impact on attitudes towards CPS and decision making and pointed to other factors. In Reeves' study (2007) which was conducted on 231 college females in the USA, media exposure was not a predictor of willingness to undergo cosmetic plastic procedures, whereas life satisfaction and personal cosmetic behavior were (Reeves, 2007). The quality of social support was a predictor factor too, as Haas (2007) concluded that the quality of social support is essential to better views about the body satisfaction and decisions regarding aesthetic procedures (Haas, 2007). Galanis (2013) argued that although plastic surgeons are increasingly dedicated to marketing activities, advertising content was the least important factor in surgeon selection compared with the surgeon's reputation and having a certification from abroad in the plastic surgery field (Galanis et al., 2013). Although Ashikali et al. (2014) study reports that even the adolescent girls' exposure to CPS content on reality TV resulted in more dissatisfaction with their weight and appearance, no changes were observed in their attitudes toward CPS (Ashikali et al., 2014). Also, Menon (2016) argued emphasizing the word "natural" on surgeons' websites was found to be a factor behind selecting a certain surgeon (Menon, 2016).

Guided by the literature reviewed above, the following hypotheses were generated:

- Exposure to cosmetic plastic surgery advertising cultivate positive attitudes towards aesthetic procedures.
- Exposure to cosmetic plastic surgery advertising enhances the surgery behavior.

### **Research Problem:**

This study aimed at testing the relationship between cosmetic plastic surgery (CPS) advertising exposure, social comparison and women's attitudes and behavior in undergoing CPS.

This study adds a new predictor to the social comparison theory, as it examines the impact of CPS advertising exposure on engaging in a social comparison with the idealized model of beauty presented by the advertising and how would exposure and comparison impact women's decision to undergo CPS surgery. Moreover, it seeks to discover socio-psychological factors affecting CPS advertising exposure and engaging in a social comparison process. Finally, based on the results, the study would suggest a model that can help aesthetic doctors and marketers to understand how they can develop marketing campaigns and affect costumers' behavior.

### **Hypotheses & Research Questions:**

Guided by the literature reviewed above, the following hypotheses and questions were generated:

**H1.** Exposure to cosmetic plastic surgery (CPS) advertising is positively associated with engagement in a comparison with the idealized model of beauty presented by the advertising.

**H2.** Exposure to cosmetic plastic surgery advertising cultivate positive attitudes towards aesthetic procedures.

**H3.** Exposure to cosmetic plastic surgery advertising enhances the surgery behavior.

**H4.** Engaging in a comparison process is positively related to the women's behavior in undergoing CPS surgery.

In addition, several research questions were posed to explore new factors related to the study:

**RQ1.**What is the participants' source of information about cosmetic

plastic surgery?

RQ2. What are the psychological factors that impact exposing to cosmetic plastic surgery advertising?

RQ3. Do all women who are exposed to cosmetic plastic surgery ads engage in a social comparison process?

RQ4. What is the percentage of undergoing cosmetic plastic surgery within the sample?

RQ5. What type of cosmetic plastic surgery ads may impact attitudes towards aesthetic procedures?

## **Methodology:**

### **1. Data and sample:**

To find the relationship between exposure to CPS advertisements and engaging in a social comparison process, leading to the formation of attitudes and undergoing these surgeries, a survey interviewed 250 Egyptian women above 18 years old during January and February 2021. The quantitative study and the use of the survey is one of the most appropriate means for such a topic, as before conducting the research, there were attempts with a number of women to talk about this topic, but the majority of them indicated that they had never done any cosmetic procedures and that they have not been exposed to such kind of advertisements before.

Data collection was carried on the Internet for two reasons. First, this topic is considered sensitive and private to most of the Egyptian women and using the Internet can give them the freedom to express their opinions and attitudes freely. Second, data was collected during the spread of COVID 19 and social distancing was a must.

The first page of the survey confirmed that the information is protected and will be used only for the study. In addition, it declared that the names of the participants are not important to make them feel free. The questionnaire included a wide range of topics, such as participants' source of information about cosmetic plastic surgery, the impact of exposing to CPS ads on participants' engagement in a comparison process, attitudes toward CPS ads and on undergoing a procedure, and socio-psychological factors that impact engaging in a comparison after being exposed to CPS ads. The first four questions were about beauty and aging in general to make the participants familiar with the topic.

## 2. Socio-demographic profile of the sample:

The socio-demographic profile of the sample (Table 1) shows a very low representation of those “over-50” age group (8.8%). Moreover, the sample shows a relatively high percentage of those who are married (62.4%). The economic classification depends on the income of respondents per month with Egyptian pounds.

**Table 1: Socio-demographic Profile of the Sample**

Variables	%
<b>1. Age (years)</b>	
(a) 18: less 30	20.4
(b) 30: less 40	39.2
(c) 40: less 50	31.6
(d) 50 and over	8.8
<b>2. Education</b>	
(a) Master’s or doctorate degree	40.0
(b) Graduated from a college	44.0
(c) Attending a university	12.0
(d) Lower education	4.0
<b>3. Economic classification</b>	
(a) lower than 4000	15.6
(b) 4000: less 6000	16.0
(c) 6000: less 10000	21.2
(d) 10000: less 15000	18.8
(e) 15000 and over	28.4
<b>4. Marital status</b>	
(a) Single	33.6
(b) Engaged	4.0
(c) Married	62.4

## Measurement

### 1. Independent Variables:

Cosmetic plastic surgery (CPS) advertising is the independent variable in this work and it was measured using the following questions: How often do you expose to CPS advertisements? Why do you expose to such kind of advertisings? How do you follow the content related to plastic cosmetic procedures and where do you see it?

### 2. Dependent Variables:

This study explores the consequences of CPS Advertising exposure on attitudes and behavior. It investigates whether exposure forms positive attitudes towards CPS and enhances the behavior of undergoing CPS. A number of statements have been prepared that measure their attitudes, such as cosmetic procedures are necessary to rejuvenate the beauty of any woman, cosmetic procedures are waste of money, cosmetic procedures are suitable only for celebrities, cosmetic procedures should be only conducted in cases of repairing deformities and reconstruction, cosmetic procedures are suitable for the elderly only, cosmetic procedures have a high degree of risk, cosmetic ads are propaganda and most of them are deceptive, my previous experiences in this field were successful. The participants were to choose from these responses: strongly agree, agree, natural, disagree, strongly disagree. Then women were asked a direct question about the following: Have you done any of the plastic cosmetic procedures?

### 3. The Measurement of Hypotheses Variables:

All the measures in this section use a 5-point Likert-type response format (1= strongly disagree, 5= strongly agree).

#### - Engaging in a Social Comparison Process:

In this study, social comparison process refers to the act of comparing one's self - current image with the idealized model of beauty presented by the advertising. The Iowa-Netherlands Comparison Orientation Measure (INCOM) (Gibbons & Buunk, 1999) and Universalistic Social Comparison Scale (USC) (Morrison et al.,2003) were used to discover the level of comparison people do with others on a five-point scale. To achieve the aim of the study, nine items of the scale's items will be used. (1) I do believe beautiful celebrities had aesthetic procedures;

(2) I compare myself with pretty ones on media; (3) I refuse any comparison with others; (4) I do care about others' perception of beauty and how to achieve it; (5) I compare between how I look like now and in the past; (6) when I get exposed to aesthetic ads, I compare my self-current image with the idealized model of beauty presented in ads; (7) exposing to cosmetic plastic surgery ads makes me wish that I were prettier; (8) I do not want to look like the women I see in the cosmetic plastic surgery ads; (9) I share cosmetic plastic surgery ads to my friends and relatives to know their opinion and compare it with mine. Cronbach's alpha test indicates that 68.4 percent of the participants are engaged in a social comparison with medium degree, 10.4 percent of the participants are engaged with high degree and 21.2 percent of the participants are engaged with low degree.

**- Self-esteem:**

Self-esteem can be described simply as how much people like themselves and believe in their capabilities. The Rosenberg Self-Esteem Scale was used to measure participants' self-esteem; four items of the scale will be used. (1) I consider myself as an attractive person; (2) I am satisfied with what I achieved in my life; (3) when I compare myself with my friends, I feel I am special; (4) I can overcome any problem I would face. Cronbach's alpha test indicates that 50.6 percent of the participants show high self-esteem, 36.8 percent of them show medium self-esteem and only 3.6 percent of them show low-esteem.

**- Body satisfaction:**

Body satisfaction can be described simply as how much people like their bodies. To achieve the aim of the study, five items of the scale will be used. (1) I feel satisfied about my body; (2) I neglect negative comments on my body from my family and friends; (3) I feel depressed because of my body; (4) I have the desire to have a better body; (5) I do care about others' opinion about my body. Cronbach's alpha test indicates that 70.8 percent of the participants are medium satisfied with their body; only 19.2 percent the participants are highly satisfied and 10 percent of the participants are low satisfied with their bodies.

**Finding and Analysis:**

Before discussing the relationship between CPA advertising, social

comparison and attitudes towards CPS and behavior, it is useful to describe the perceptions of beauty among Egyptian women that may impact their behavior. Agreeing, Kartika (2021) beauty does not mean only physical attractiveness but as Sisti (2021) argued the concept of beauty is still ambiguous and it differs in every individual's mind. The current study indicates that having charismatic personality came at the forefront of women's perception about beauty (20%), then retaining the appearance of youthfulness and vitality of the face and body (14.8%), and other concepts such as having self-confidence, the ability to have good relationships with others, healthy body, and good appearance in general. And because the opinions of others are among the factors affecting the psyche of the individuals and sometimes in their decisions as well, women were asked about how others perceive them with the signs of aging; 33.6% said that others do not look at them in a different way, but in a normal way due to familiarity; 10.4% said that nobody cares about that change; 24% said that they do not care about others; 5.2% said that they received advices to do cosmetic plastic surgery. When they were asked about their feeling towards getting older, surprisingly, 81% said that they feel that it is normal to have aging signs and they try to adapt with them; 42.8% feel afraid and only 35.6% said that they feel that they should do something to maintain a good appearance.

Finally, 57.6% mentioned that they think cosmetic plastic surgery are widely spreading among Egyptian women; 34% believe that they are quite spreading; 6.4% feel that they are spreading in a limited way and 2.0% do not know.

#### CPS Advertising Exposure and Information Sources:

Before discussing the impact of CPS advertising on behavior, it is important to identify patterns of CPS exposure among Egyptian women, ways of acquiring information about CPS, sources of information, level of following this type of advertising, motives of exposure, and the most effective type of ads in CPS. Starting with CPS advertising exposure, Table 2 illustrates that vast majority of the sample (83.6%) expose to CPS advertising with different degrees, whereas less than one sixth (16.4%) do not expose to it. In addition, Table 2 indicates that 42.1 percent of the participants search actively on the internet, social media and TV the information related to CPS

and this reflects their desire to acquire information. We can notice the effective role of social media as a source of information that allows them to interact, ask for more details and share information with others. The motives that came at the forefront of searching and following this type of ads include the desire to take care of self (64.1%), knowing the newest procedures and machines to keep beauty (48.8%) and get to know with famous doctors and clinics in CPS fields (25.4%)

Depending on the literature review, there are many types of CPS ads; this study tries to figure out which of them the participants prefer. Table 2 indicated that the “before and after” ads came in the forefront of ads that the participants agree that they can impact their attitudes toward CPS; then, ads with full explanation of the procedure came next. This result can be interpreted in the light of social comparison theory hypothesizes, as these types of ads ease engaging the participants in a comparison process between one’s self and what is presented by ads. Chi-square test indicates a positive relationship between the type of CPS ads and positive attitudes toward the behavior with value= 16.36, df (4),  $p < .001$ .

**Table 2: Cosmetic plastic surgery ads exposure and information sources**

Variables	No.	%
<b>Watching CPS ads</b>		
Excessively	58	23.2
Sometimes	112	44.8
Rarely	39	15.6
Never	41	16.4
<b>Total</b>	<b>250</b>	<b>100</b>
<b>Ways of acquiring information</b>		
By accident	93	44.5
Searching on the internet, social media and TV	88	42.1
Joining specialized groups on social media	77	38.8
When seen, never stop by	8	3.8

<b>Total participants who watch CPS ads (can choose more than one option)</b>	<b>209</b>	<b>83.6</b>
<b>Sources of CPS information</b>		
Social media	195	93.3
TV	50	23.9
Newspapers and magazines	17	8.1
Billboards	17	8.1
Radio	11	5.3
<b>Total participants who watch CPS ads (can choose more than one option)</b>	<b>209</b>	<b>83.6</b>
<b>Motives behind exposure</b>		
Take care of self in this age stage	<b>134</b>	<b>64.1</b>
knowing the newest procedures and machines to keep beauty	<b>102</b>	<b>48.8</b>
Knowing the famous doctors and clinics in that field	<b>53</b>	<b>25.4</b>
reminding them with their youth stage	<b>10</b>	<b>4.8</b>
<b>Total participants who watch CPS ads (can choose more than one option)</b>	<b>209</b>	<b>83.6</b>
<b>Most effective type of CPS ads in making decisions</b>		
Before and after ads	95	38.0
Informational ads	79	31.6
Testimonial ads	33	13.2
An ad with a discount	25	10.0
<b>Total</b>	<b>114</b>	<b>45.6</b>

### **Implications of CPS Advertising Exposure:**

Based on the theoretical framework and literature review, three hypotheses of this study were generated to measure the impact of CPS advertising exposure; the first one is on participants' engagement in a comparison; the second one is on attitudes toward CPS ads and the third one is on undergoing a procedure. A series of statistical correlations were conducted among the study's variables. Table 3

illustrates these relationships. The results argued that CPS exposure was significantly correlated with engaging in a comparison between one's current image and the idealized model of beauty presented by ads. A five-point scale with nine items was used to measure comparison (Cronbach's Alpha= 0.698). Similarly, the general results argued that 50.4% of the respondents after exposing to CPS advertising, they compare themselves with the idealized model of beauty presented with different degrees. Furthermore, 54.8% of the respondents mentioned that when they expose to CPS ads, they hope to do these advertised procedures to be more beautiful. Furthermore, exposure to cosmetic plastic surgery advertising was positively associated with forming positive attitudes towards aesthetic procedures. A five-point scale with nine items was used to measure the attitudes (Cronbach's Alpha= 0.676). Emphasizing that 73.2% of respondents believed that cosmetic plastic procedures are necessary to rejuvenate the beauty of any woman. Regarding the consequence of CPS exposure, the findings showed that CPS exposure enhanced the behavior of undergoing for a surgery.

Previous results indicate that **H1, H2, and H3** were accepted; meaning that exposure to CPS advertising has impacted engagement in a comparison with the idealized model of beauty presented by the advertising, cultivating positive attitudes towards aesthetic procedures, and enhancing the surgery behavior and taking the decision of undergoing for it.

**Table 3: Advertising exposure and engagement, attitudes, and behavior**

Variables	Exposing to cosmetic plastic surgery ads		
	Pearson correlation	Sig.(2-tailed)	Total
<b>Social comparison engagement</b>	**0.432	0.000	250
<b>Attitudes toward CPS</b>	**0.371	0.000	250
<b>Undergoing for a procedure</b>	**0.865	0.000	250

## **Socio-psychological Factors impact Exposure and Comparison Engagement**

### **Factors impact exposure:**

Previous Tables (2 & 3) raise an important question: Are all women interested to be exposed to CPS ads? What kind of factors leads some women to engage in a social comparison when they are exposed to ads and others are not?

The results in Table 4 indicates that exposing to CPS advertising would be related to socio-psychological factors, meaning that women with body image dissatisfaction would search and expose to CPS advertising. Furthermore, women with positive previous experience about CPS based on their direct experience or indirect experience from people around them would like to expose to CPS advertising. Similarly, women who have social support with the meaning of finding approval from an important person or group of people for undergoing a particular behavior would like to expose this type of advertising. Surprisingly, ANOVA test indicates that demographics such as age, income, and marital status were not correlated with exposure to CPS ads; even educational levels of participants were positively correlated with exposure [ $r(250) = 0.128$ ,  $p = 0.000$ ]. These results can be explained in the light of excessive existence of this type of ads on social media and TV programs, the increased numbers of specialized beauty groups on social media, and the increased desire of women to acquire beauty criteria portrayed by celebrities on traditional and social media whatever their age, income, or marital status.

### **Factors impact Social comparison engagement:**

Based on social comparison theory and the literature review, the research tries to find out the most important socio-psychological factors that impact the process of engaging in a comparison after exposure to CPS ads.

One of the most important results of this study is that engaging in a comparison is significantly correlated to taking the surgery decision. Table 4 illustrates that women with body image dissatisfaction, low self-esteem, and previous positive experiences are more likely to engage in a social comparison with ideal beauty images portrayed in CPS advertising. On the other hand, results indicate the absence of a

relationship between engaging in a social comparison and having a social support from others as they may still at the stage of thinking and not the stage of making decision. See Table 4 for detailed statistics.

Furthermore, ANOVA test indicates a positive relationship between age and education and engaging in a social comparison. Those who are over the age of 40 are more likely to engage in a social comparison, while those with higher educational level are less likely to engage in such a comparison. The weak relationships between the exposure to CPS ads and previous factors may be interpreted in the light of that women do not seek to be exposed to ads intentionally. Rather, as table 2 illustrates, most of them are exposed to ads by accident. Then, they may choose to continue following or to skip depending on these factors. See Table 4 for detailed statistics.

**Table 4. Socio-psychological factors impact exposure and social comparison process**

Variables	Exposing to CPS ads		
	Pearson correlation	Sig.(2-tailed)	Total
<b>Body image satisfaction</b>	-.**0.224	0.000	250
<b>Self-esteem</b>	0.059	0.356	250
<b>Positive previous experiences</b>	**0.342	0.000	250
<b>Social support</b>	**0.267	0.000	250
	Engaging in a social comparison		
<b>Body image satisfaction</b>	**0.46-	0.000	250
<b>Self-esteem</b>	-.**0.201	0.000	250
<b>Previous experience</b>	**0.235	0.000	250
<b>Social support beliefs</b>	0.054	0.395	250

**CPS Advertising Exposure and Behavior:**

Regarding the consequences of CPS advertising exposure, the results in Table 5 illustrated that 69.3% of the participants who had cosmetic plastic surgery were exposed to CPS ads that positively impacted their decision with different levels and only 30.7% argued that they were not affected by the ads. To discover the reason behind undergoing for a CPS, 57% mentioned they went for a surgery to look prettier and only 11.4% had the procedure for reconstruction as a consequence of a disease or an accident.

**Table 5: Cosmetic plastic surgery choice behavior**

<b>Variables</b>	<b>%</b>
<b>Cosmetic plastic surgery behavior</b>	
Undergoing	45.6
Have not undergone	54.4
<b>No. 250</b>	<b>100%</b>
<b>Type of cosmetic plastic surgery</b>	
Non-invasive in a clinic	59.6
Invasive surgery in a hospital	18.4
Both	21.9
<b>No. 114</b>	<b>45.6%</b>
<b>Motives of undergoing for cosmetic plastic surgery</b>	
Looking prettier	57
Feeling happy	50.9
Increase self-confidence	39.5
Overcome the signs of aging	25.4
Increase self-esteem	19.3
Reconstruction as a consequence of a disease or an accident	11.4
<b>No. 114</b>	<b>45.6%</b>
<b>Social support</b>	
Deciding by myself	60.8
Will not tell anyone	14.8
Rejection	12.4
Encouraging	12.0
<b>No. 250</b>	<b>100%</b>
<b>The impact of cosmetic plastic surgery ads in decision making</b>	
Extremely high	15.8
High	14.9
Normal	14.9
Low	23.7
Not at all	30.7
<b>No. 114</b>	<b>45.6%</b>

As this study tries to find out the relationships between CPS ads exposure and comparison engagement process, attitudes toward procedures, and choice behavior (see table 3), it also tries to find out the impact of social comparison engagement on attitudes toward cosmetic plastic surgery and behavior to undergo a surgery. The results in Table 6 demonstrated that engaging in a comparison is positively correlated with forming positive attitudes toward cosmetic plastic surgery and undergoing for a CPS. This result means that when women expose to CPS ads, they may engage in a comparison with the ideal image of beauty presented by the advertising then cultivate positive attitudes towards CPS then decide to undergo for a surgery. This result supports the planned behavior theory that argued behavior is influenced by positive attitudes (Liddelow & others 2020: 390). This means H4 was accepted.

**Table 6. The impact of engaging in a comparison on attitudes and behavior**

Variables	Engaging in a comparison		
	Pearson correlation	Sig.(2-tailed)	Total
<b>Attitudes toward cosmetic plastic surgery</b>	**0.309	0.000	250
<b>Undergoing for a procedure</b>	**0.157	0.013	250

**Suggested model:**

One of the main objectives of this study is to suggest a model that may help aesthetic practioners and marketers to understand how they can develop marketing campaigns.

To achieve this objective, the study seeks to find out more factors that may affect forming positive attitudes towards behaviors and the choice behavior itself to be used in planning marketing campaigns.

Table (7) illustrates that previous experiences were the strongest positive relationship between both attitudes and behavior. The study proves that body image dissatisfaction, previous experience, social support and perceived level of procedures which are spread among Egyptian women are related positively to attitudes toward cosmetic plastic surgery. Self-esteem does not prove that there is a relationship between both attitudes and behavior, and this can be related to the most important motives the participants mentioned for undergoing a

procedure as looking prettier and feeling happy (see table 5).

Moreover, ANOVA test illustrates that there is no relationship between age, income, education level, marital status, and those attitudes.

In addition, the study argues that other factors are related to decision making such as body image dissatisfaction, positive previous experience, social support, and perceiving high level of cosmetic plastic surgery procedures spread among women and how others look at aging signs.

Additionally, Chi-square tests were used to analyze the relationship between undergoing a cosmetic plastic surgery and some psychological factors. The results indicate a significant positive correlation between the behavior and exposing to ads, perceiving high level of spread among women, body dissatisfaction, engaging in a social comparison, previous positive experiences, social support, and positive attitudes toward procedures. Furthermore, the results indicate that there is no correlation between the behavior and having a sad feeling towards getting old, low self-esteem, and the way others look at woman and marital status. Age, income, and education were statistically significant predictors of undergoing cosmetic plastic surgery. ANOVA test indicates that women over 40 years, who get more than 15000 L.E monthly income and are university graduates, came on the top of those who undergo cosmetic plastic surgery.

**Table 7: Factors impact attitudes towards CPS and behavior**

Variables	Attitudes towards cosmetic plastic surgery		
	Pearson's Correlation	Sig.(2-tailed)	Total
Body image satisfaction	_.**0.311	0.000	250
Previous experience	**0.523	0.000	250
Social support	**0.261	0.000	250
Perceived level of spread	**0.21	0.001	250
Self-esteem	_.087	0.172	250
How others see me	0.033	0.601	250
	Undergoing cosmetic plastic surgery decision		
Body image satisfaction	_.**0.171	0.007	250
Previous experience	**0.509	0.000	250
Social support	**0.272	0.000	250
Perceived level of spread	**0.276	0.000	250

<b>Self-esteem</b>	_.0001	0.985	250
<b>How others see me</b>	0.05	0.435	250

Based on social comparison theory, the literature review, and the study results, the study suggests the following model:

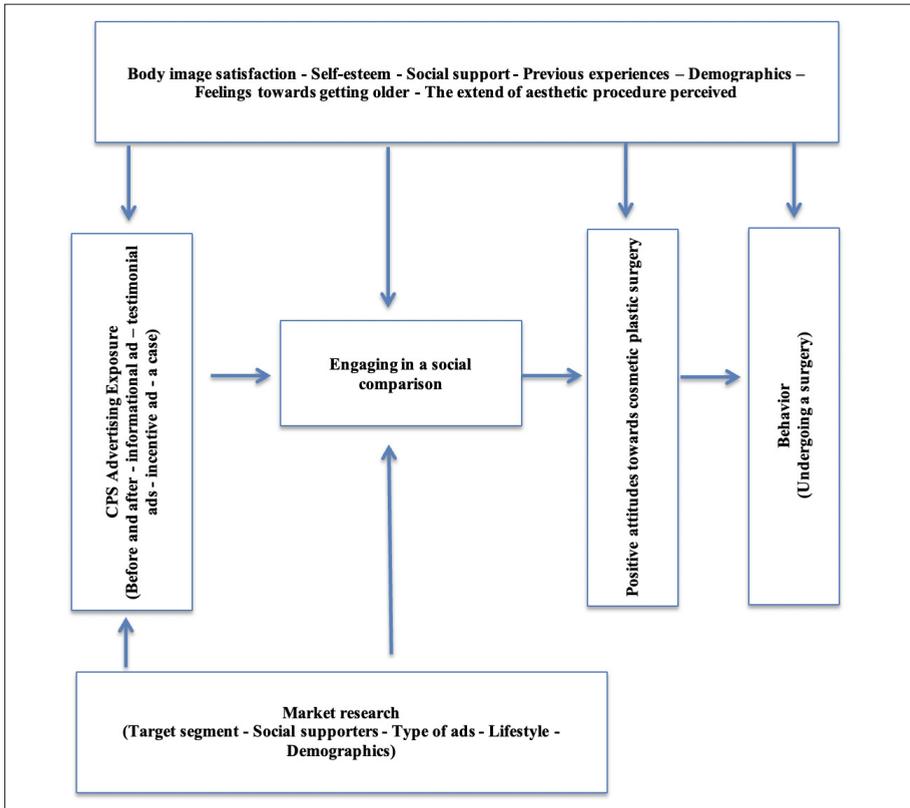


Figure 1: Aesthetic procedures choice behavior model\*

Figure 1 suggests that exposing to CPS advertising will have positive impact on cosmetic plastic surgery choice behavior. The study takes into consideration the impact of different types of information in CPS advertising on attitudes towards cosmetic plastic surgery. Using before and after ads proved to have the biggest impact on women's attitudes as they help in figuring out the differences between before undergoing a procedure and after finishing it. In addition, because cosmetic plastic surgery is concerned with the most visible parts

of the body, which are the face and body, a large number of women are eager to obtain a large amount of information and here comes the importance of informational advertising which describes the procedures in detail. Moreover, testimonial ads in which a case offers her positive experience about a procedure will be more convincing to others as a way of sharing experiences with real cases. The model suggests that women who are exposed to advertising will engage in a social comparison process, as they will start comparing their current images with the idealized model of beauty presented by the ads. This comparison is a moderator to positive attitude towards cosmetic plastic surgery. The study proves that exposing to CPS advertising, engaging in a social comparison, and forming positive attitudes will be positively related to the decision of undergoing cosmetic plastic surgery. The main objective of any successful advertising is to obtain a certain behavior, and when this behavior is related to psychological factors, it becomes harder. Undergoing aesthetic procedures most probably relates to psychological factors as they depend on the meaning of beauty to each one, how people accept aging signs, self-esteem, body image satisfaction, and how communities support this type of procedures. For all these and more reasons, many variables may affect exposing to CPS advertising, engaging in a social comparison process, forming positive attitudes, and undergoing a procedure. The results concluded that body image dissatisfaction and positive experiences by the individuals come at the forefront of them; this explains why before and after, informational and testimonial ads are the most effective types in influencing women's behavior in this study. Therefore, this can explain why cosmetic plastic surgery field changes the criteria of beauty every now and then as a reason to create a case of body image dissatisfaction and to engage people in a continuous comparison with the new idealized image of beauty that they do not have.

The suggested model imposed several concerns; the most important of which is conducting market research to identify the target segments and - based on this identification - choosing the best advertising type for them or the best one in each stage. Furthermore, characters, daily situations, lifestyle, and plastic procedures presented by ads should be chosen precisely to facilitate the target of engagement in a social comparison process. Identifying opinion of the leaders of each segment or those who can provide them with the needed social support are

important for what choice behavior marketers need.

**Final remarks:**

The aim of this study is to discuss the impact of cosmetic plastic surgery ads as it reveals the degree of importance of various psychological factors that affect the process of decision making to undergo aesthetic procedures. In addition, it has tried to discover the importance of social comparison theory in affecting women's behavior by discussing whether all women, who get exposed to ads, are engaged in a social comparison process between their current images with the idealized model of beauty presented by the ad. The research supposes that exposing to cosmetic plastic surgery ads will have positive attitudes towards aesthetic procedures. Some psychological variables may affect exposing to this type of advertising as body image dissatisfaction, positive attitude towards procedures, past experience, social support besides demographics. In addition, the study suggests that engaging in a social comparison process with the idealized model of beauty presented in the advertising is a moderator to positive attitude toward aesthetic procedures and undergoing them. Also, the study takes into consideration the impact of different types of information in advertising on attitudes towards cosmetic plastic surgery. Consequently, the research adds two elements to social comparison theory; they are cosmetic plastic surgery advertising and attitudes towards aesthetic procedures, and it seeks to determine their role in affecting the decision to undergo a procedure. Based on the collected data via a survey carried on a sample of 250 women, a model to influence the women's decision to undergo an aesthetic procedure was suggested, as it might be relevant to clinics, doctors, and marketers in planning cosmetic plastic surgery campaigns that aim at affecting women's decisions in the future.

The model emphasized the importance of market research, segmenting the target audience, finding out opinion leaders and social support to each segment. As a result of this market research, the content of advertising will differ. The model emphasized the importance of engaging the targets in social comparison with what is presented by ads and this is why what is presented should be close to their lifestyle or what they dream about. The model suggests that not all individuals are keen to be exposed to cosmetic plastic surgery

advertising; not all individuals who are exposed to ads will engage in a social comparison or form positive attitudes towards aesthetic or finally undergo for a behavior, but there are some psychological factors that affect each variable as body image satisfaction, self-esteem, feelings towards aging signs, social support, and demographics.

### **Conclusion:**

Cosmetic plastic surgery business in Egypt is increasing, especially with the increasing use of new technology, innovative techniques in surgery and media ads. Egypt was ranked as the first place for Arab countries and the 19<sup>th</sup> worldwide for CPS with 1.2% of worldwide total number/percentage (ISAPS, 2018), which made this study important in knowing the factors affecting individuals' attitudes towards CPS and behavior for undergoing such procedures.

This study may help practitioners and marketers to understand consumers and plan strategies that can satisfy or create their needs and develop favorable attitudes towards aesthetic procedures. This research has not only been concerned with the impact of cosmetic plastic surgery advertising on behavior, but also it has been concerned with the socio-psychological factors that affect exposing to advertising and undergoing for a cosmetic plastic procedure whether it is a surgery in a hospital or non-invasive procedure in a clinic. The study argued that undergoing for an aesthetic behavior is not only positively related to being exposed to advertising, but also to body image dissatisfaction, getting social support by others to have a procedure, previous positive experiences by the woman or others surrounding her and the perception that this type of procedures is widely spread in the Egyptian community. The study showed that 45.6 percent of the sample had one aesthetic procedure or more, and the motive of 50.9 percent of them was to feel happy and the motive of 11.4 percent was for a necessary reason as a reconstruction for one of the body parts. This result emphasized the importance of socio-psychological factors behind aesthetic choice behavior. These results are congruent with existing literature. For example, Chen (2010) proofed the impact of social support and perception of other people's opinion of Taiwanese female on cosmetic surgery candidates.

A lot of research have argued the impact of media whatever traditional or new on individuals, especially women. Hopkins and

his colleagues (2020) through the use of google trends search term data and compared with annual Instagram and Facebook user counts argued that the online interest in noninvasive cosmetic procedures and dermatology are increasing. And this is congruent with the results of this study as the vast majority of the sample (83.6%) exposes to CPS advertising with different degrees, whereas less than one sixth (16.4%) do not expose to it. In addition, 42.1% of the participants search actively on the internet, social media, and TV the information related to CPS, and this reflects their desire to acquire information.

Body image dissatisfaction was one of the most important psychological factors in this study, as it appears to motivate the participants to expose to CPS advertising and be engaged in a comparison between one's self-current image with the idealized model of beauty presented by ads, forming positive attitudes towards cosmetic plastic surgery and the behavior itself. Many other studies concluded the same results. For example, Ashikali (2017) suggested that media content and advertising impacts body image negatively.

In addition, the research is concerned with social comparison theory, as it assumes that engaging in a comparison with the idealized model of beauty after exposing to cosmetic plastic surgery advertising is a moderator factor in this study. The results showed that engaging in a comparison process is positively related to advertising exposure, forming positive attitudes towards procedures and undergoing them. These results emphasized the importance of creating ads that push women to engage in a comparison, especially those who are above 40 years as the study shows their readiness to engage in a comparison more than others and this may relate to their feelings of getting older and starting to age. These results are congruent with existing literature. For example, Mills (2017) emphasizes that the perfect appearance of men and women has been posted through media makes people attempt to assess and change their appearance like what they see (Makarim, 2020). Moreover, Gesto's (2021) study argued that images of celebrities on Instagram related positively to the acceptance of cosmetic surgery through the mediating process of social comparison.

Furthermore, the research was interested in measuring the respondents' attitudes towards different types of CPS advertising. The results indicate that there is a positive relationship between different types of ads and forming positive attitudes and desire for CPS as the

before and after ads come at the forefront. Then, ads contain detailed information come next. Then, testimonial ads come after that. Finally, ads with discounts come at last. The first three types of ads contain images and information that can accelerate engaging in a social comparison that proves its importance in making the decision. Most of these results are congruent with existing literature as Park & Allgayer (2018) argued before-and-after photos of patients; patient testimonials were positively related to CPS intention. Moreover, Walker (2021) concluded in his study that young women showed that viewing images of female who have undergone CPS affected their desire for CPS, especially if they spent much time on social media.

In conclusion, this research suggested an aesthetic procedure choice behavior model that might be useful in planning aesthetic marketing campaigns that aim at influencing women's behavior.

Further study:

Consumer's behavior can be influenced by psychological and sociocultural characteristics, demographics and media, as such an experimental and longitudinal study would be recommended to understand the impact of different variables. Finally, it would be recommended to conduct a similar study on different segments, like males, in order to compare the findings.

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\*The author depends on the research results in suggesting this model.

