

**THE EFFECT OF MEDIA ON INTENTION TO UNDERGO  
SURGICAL AND NON-SURGICAL COSMETIC PROCEDURES**

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**THE EFFECT OF MEDIA ON INTENTION TO UNDERGO SURGICAL AND  
NON-SURGICAL COSMETIC PROCEDURES**

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**Programme in Marketing**

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**Anadolu University**

**Graduate School of Social Sciences**

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## JURI VE ENSTITU ONAYI

## **ABSTRACT**

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This research provides a new test and application of the Tripartite Influence Model to understand the role of mass media and social media influences on body image and intention to undergo cosmetic surgical and non-surgical procedures among Iranian women. According to this model, we hypothesized that media influence affect women's intention to undergo cosmetic procedures through the mediating role of internalization of media beauty ideals and body image. Since the original model examines the effect of sociocultural influences like mass media; in this study we extend this theory to include social media as an alternative form of media. Also we included the second dimension of media influence (media information) and the second dimension of body image (i.e. appearance investment) in the proposed model, which were mostly neglected among existing studies.

The research sample included 463 Iranian women recruited through convenience sampling method. The required data was gathered through a questionnaire included a demographics form, the modified form of Multidimensional Body-Self Relations Questionnaire (MBSRQ-AS), Sociocultural Attitudes towards Appearance Questionnaire (SATAQ-3) and Acceptance of Cosmetic Surgery Scale (ACSS). Exploratory and confirmatory Factor Analyses were used to validate the measurement instruments. Structural equation modeling (SEM) was used to validate the proposed model and research hypotheses. The results indicated that media influence affect women's intention to undergo cosmetic procedures through the mediating role of internalization of media

beauty ideals and body image. Internalization fully mediated the relationship between media influence and body image. Body image also fully mediated the relationship between internalization and intention to undergo cosmetic surgical and non-surgical procedures. The findings provided several theoretical and practical implications. The study limitations and suggestion for future studies were discussed.

**Key words:** Media influence, Cosmetic Surgery intention, Tripartite Influence Model, Social media, Body image.

## ÖZET

### MEDYANIN CERRAHİ VE CERRAHİ OLAMAYAN ESTETİK İŞLEM YAPTIRMA NİYETİ ÜZERİNDEKİ ETKİSİ

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Bu araştırma, İranlı kadınlar arasında medya ve sosyal medyanın beden imajı ve estetik işlem yaptırma niyeti üzerindeki etkisini üzerindedir. Bu amaçla, Üçlü Etki modeli kullanılmış ve sınanmıştır. Bu modele göre, medya etkisinin, içselleştirilme ve beden imajı aracılığıyla kadınların estetik işlem yaptırma niyetini etkilediği varsayılmaktadır. Orijinal model, sosyo-kültürel etkileri ve özellikle geleneksel medyanın etkisini incelemektedir; ancak bu çalışmada, model, sosyal medyayı alternatif bir medya biçimi olarak kapsayacak şekilde genişletilmiştir. Ayrıca, mevcut çalışmalar arasında çoğunlukla ihmal edilen medya etkisinin ikinci boyutunu oluşturan medya bilgisi, ve beden imajının ikinci boyutu olan kişinin görünümüne yatırımı da bu çalışmaya dahil edilmiştir.

Araştırma, kolay örnekleme yöntemiyle seçilen 463 İranlı kadından elde edilen verileri içermektedir. Gerekli veriler, Çok Boyutlu Beden-Öz İlişkiler Anketi (MBSRQ-AS), Görünüşe Yönelik Sosyokültürel Tutumlar Anketi (SATAQ-3), Kozmetik Cerrahinin Kabulü ölçeğini (ACSS) ve demografik bilgileri içeren bir anket aracılığıyla toplanmıştır. Ölçme araçlarını doğrulamak için açımlayıcı ve doğrulayıcı faktör analizleri kullanılmıştır. Önerilen modeli ve araştırma hipotezlerini doğrulamak için Yapısal Eşitlik Modellemesi (SEM) kullanılmıştır. Bulgular, medya etkisinin, içselleştirme ve beden imajı aracılığıyla kadınların estetik işlem yaptırma niyetini etkilediğini göstermiştir.

İçselleştirme, medya etkisi ile beden imajı arasındaki ilişkiye tam olarak aracılık etmiştir. Ayrıca beden imajı, içselleştirme ile kozmetik cerrahi ve cerrahi olmayan işlem

yaptırma niyeti arasındaki ilişkiye tam olarak aracılık etmiştir. Bulgular, çeşitli teorik ve pratik çıkarımlar sağlamaktadır. Çalışmanın sınırlılıkları ve gelecekteki çalışmalar için öneriler tartışılmıştır.

**Anahtar Sözcükler:** Medya etkisi, Estetik cerrahi niyeti, Üçlü Etki Modeli, Sosyal medya, Beden imajı

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## ETİK İLKE VE KURALLARA UYGUNLUK BEYANNAMESİ

Bu tezin bana ait, özgün bir çalışma olduğunu; çalışmamın hazırlık, veri toplama, analiz ve bilgilerin sunumu olmak üzere tüm aşamalarında bilimsel etik ilke ve kurallara uygun davrandığımı; bu çalışma kapsamında elde edilen tüm veri ve bilgiler için kaynak gösterdiğimi ve bu kaynaklara kaynakçada yer verdiğimi; bu çalışmanın Anadolu Üniversitesi tarafından kullanılan “bilimsel intihal tespit programı”yla tarandığımı ve hiçbir şekilde “intihal içermediğini” beyan ederim.

Herhangi bir zamanda, çalışmamla ilgili yaptığım bu beyana aykırı bir durumun saptanması durumunda, ortaya çıkacak tüm ahlaki ve hukuki sonuçları kabul ettiğimi bildiririm.

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## LIST OF ABBREVIATIONS

<b>CSI</b>	: Cosmetic surgery intention
<b>CNSI</b>	: Cosmetic non-surgical procedure intention
<b>SM</b>	: Social media
<b>MM</b>	: Mass media
<b>BD</b>	: Body dissatisfaction
<b>AI</b>	: Appearance Investment
<b>Pre</b>	: Pressure
<b>Info</b>	: Information
<b>GFI</b>	: Goodness of Fit Index
<b>AGFI</b>	: Adjusted Goodness of Fit Index
<b>CFI</b>	: Comparative Fit Index
<b>NFI</b>	: Normed Fit Index
<b>RMSEA</b>	: Root Mean Square Error of Approximation
<b>X<sup>2</sup></b>	: Chi-Square
<b>DF</b>	: Degrees of Freedom
<b><math>\alpha</math></b>	: Cronbach's Alpha

# 1. INTRODUCTION

## 1.1 Background

Researchers have long been interested in exploring individual's motivations to alter their physical appearance (Desousa, 2007). Although beauty ideals have been changing according to a particular time and culture, people have always attempted to alter themselves to meet those ideals (Heinberg et al., 1995). People from all cultures and times have always undergone pain and risk in order to adapt their bodies to cultural beauty standards like the ideal size, shape, weight, color, and texture defined by the society (Schouten, 1991). For example, young Chinese girls used to bandage their feet in order to stunt growth because small feet was a beauty ideal in China; or women wore coiled brass neck rings in Myanmar to have long necks that was considered beautiful; many other practices like teeth filing, skin scarification, amputation and mutilations that have been performed for centuries around the world (Sepúlveda & Calado, 2012).

Due to the fact that our appearance is an important part of our identity and the social acceptance linked to this identity, so human being has been always trying various methods to look more beautiful, in order to achieve a better place in the society (Petek, 2006). The perceived importance of appearance for individuals can be derived from this social reality that attractive people have been always rewarded with social advantages such as more career promotions, more social interactions and more choices of romantic partner; they are perceived more outgoing, favorable, friendly and prestigious (Schofield et al., 2002; Weller & Dziegielewski, 2005). An attractive body has been perceived as a valuable property that can accelerate social, economic and romantic successes (Schouten, 1991). It is generally accepted that social status, social power, self-esteem, self-worth, job position and having a perfect partner, all depend on owning a beautiful body (Figueroa et al., 2008).

Along with the increasing importance of beauty and attractiveness at the present time, following various appearance-enhancing behaviors have been normalized among people (Farshidfar et al., 2013). As a result, today billions of dollars are spent annually by

consumers on appearance-enhancing products, fashion, clothing, jewelry, cosmetics, hair-care and grooming products in order to fulfill their needs for attractiveness, self-enhancement, self-esteem, and receive the social benefits associated with attractiveness (Bloch & Richins, 1992). Since we live in a time with increasing focus on the body and attractiveness is supposed to enhance the performance of social roles and self-estimation, the marketing as a response to this demand, has provided various products and services for managing the body, among which cosmetic surgery is one of the most debated services and consumption fields (Askegaard et al., 2002). From this point of view, the increasing desire for cosmetic surgical and non-surgical procedure as a mean to improve physical appearance is not surprising (Sarwer & Crerand, 2004).

While cosmetic surgery was undertaken rarely before, the demand for both surgical and non-surgical cosmetic procedures has increased around the world over the past few decades (Mulken et al., 2012; Nerini et al., 2014). Before the Second World War, plastic surgery was performed generally by people with scars, burns or congenital diseases in order to look “normal” not “beautiful”. After the Second World War, soldiers with burned or disfigured faces undergone plastic surgeries, but then, a major challenge arose when people said if plastic surgery can improve appearance to have a better life or job, why not to do it (Ip & Ho, 2019). So the focus of plastic surgery turned from reconstructive goals for treating and saving soldiers, to aesthetic goals like rhinoplasty, the need for plastic surgery increased and many clinics were established for aesthetic surgery (Kalantar-Hormozi, 2013). After the war, especially in the USA, Jewish or Italian-Americans started to undergo rhinoplasty in order to look less ethnic and more American; and this process has continued by now that Asians undergo cosmetic procedures to look more like Caucasians, who are defined as ideal in media and perceived to be more desirable (Dean et al., 2018).

In the 1960’s cosmetic surgery began to become popular insofar as today in the twenty first century cosmetic procedures have become so common that people claim to be addicted to undergo these procedures and if somebody decide to change his/her body, the possibilities are endless (Hunt et al., 2011). In 2015 more than 15.9 million Americans underwent cosmetic surgery while this number was approximately 400,000 Americans in 1992 (Higgins & Wysong, 2018). In 2016, the cost of total cosmetic surgical (56%) and non-surgical (46%) procedures in the United States exceeded 15 billion (ISAPS, 2016).

The global size of cosmetic procedure market was valued to be over 26.3 billion dollar in 2016 and is expected to reach 43.9 billion dollar by 2025, according to a new report by Grand View Research Inc<sup>1</sup>.

Due to the prevalence of cosmetic procedures, many studies have explored various factors that influence willingness to undergo cosmetic procedures as a mean to enhance physical appearance. Consequently, a huge number of factors found to be related to the interest in cosmetic procedures. It is suggested that media, social media, celebrity endorsements and advertising as well as socioeconomic and technological factors have raised the demand for cosmetic procedures and led to the normalization of cosmetic interventions to the degree that undergoing cosmetic surgery has become a lifestyle choice for a great number of individuals (Griffiths & Mullock, 2018). Global Cosmetic Surgery Market Research<sup>2</sup> reported that this explosive growth for cosmetic surgery market is driven by different factors that affect consumers' decision to undergo cosmetic surgery: *Social and cultural factors* (e.g. influence of media, fashion and film industry, growing use of social media, increasing aesthetic awareness, peer pressure for beauty, changing standards of beauty, growth of medical tourism); *Health factors* (e.g. rise in obesity, accidents, increasing safety of surgical procedures, growing number of cosmetic surgery hospitals); *Technological factors* (e.g. development of advanced materials like silicone implants); and *Economic factors* (e.g. growing average income, falling cost of cosmetic surgeries).

Brunton et al. (2013) categorized potential predictors of decision to undergo cosmetic procedures as a result of a systematic review of 104 studies as following:

- *Demographic factors*; such as gender, age and socioeconomic status;
- *Social factors*; such as social functioning, exposure to media, expectations of cosmetic surgery, effect of friends, family and peers, and being teased;
- *Psychological factors*; such as body image dissatisfaction (the most frequent factor), self-esteem/self-confidence, perceived quality of life, personality type, specific psychological constructs, psycho-social dysfunctions, body dysmorphic disorder, depression, and anxiety.

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<sup>1</sup><https://www.grandviewresearch.com/press-release/global-cosmetic-surgery-procedure-market>

<sup>2</sup><https://www.marketresearchfuture.com/reports/cosmetic-surgery-market-3157>

Many studies revealed that among all these factors, the most important reason and the key motivator for undergoing cosmetic surgery is negative body image attitude (Sarwer, 2007; Slevec & Tiggemann, 2010) insofar it is said that “cosmetic surgery is body image surgery” (Sarwer et al, 1998a ; p. 10). Body image refers to the individual’s perceptions, feelings, and thoughts towards his/her body and particularly its appearance (Argyrides & Kkeli, 2013b). Today a concerning number of people in the world are suffering from body image problems and ineffective yet ongoing attempts to manage appearance in order to change negative emotions about their bodies (Hutchinson & Rapee, 2007; Altabe & Thompson, 1996). Negative body-image and related problems are considered as prevalent physical and mental health problems in modern Western societies (Thompson & Stice, 2001; Kerr, 2010).

On the other hand, based on the sociocultural influences theory, sociocultural influences (i.e. family, peers and media) have been found as important determinants of both negative body image and desire to engage appearance-change behaviors (Veale et al., 2013). As a result of a great number of studies on influential factors of negative body image, many social, interpersonal and biological factors have been identified as causal factors, such as internalization of media ideals, negative verbal feedback, early maturation, sexual abuse, low self-esteem and high appearance comparison tendencies (Van den Berg et al., 2002). Body image may be influenced by many developmental, perceptual, and sociocultural factors among which sociocultural factors have received the most attention and empirical support in this respect (Higgins & Wysong, 2018). It has been implicated both theoretically and empirically that family, peers and especially media are important sociocultural sources that influence body image (Tiggemann & Slater, 2013; Hutchinson & Rapee, 2007). Culture plays an important role in forming appearance ideals and determining their attached importance; culture creates specific social beauty ideals; spreads them through cultural channels (like media or friends), then those ideals are internalized by people; finally, body image is formed according to the extent to which individuals respond to these appearance ideals (Neagu, 2015). Regarding to the role of culture in defining ideals of beauty and attractiveness, we can say that culture, not nature, dictates what is attractive; people establish their standards of beauty (about what is fashionably beautiful) according to their society’s beauty ideals, and beauty standards displayed in the fashion and film industry (Tari, 2008).

In other words body image can be affected not only by individuals' perceptions, beliefs and expectations about their bodies, but also by the sociocultural standards of ideal body; people form their ideal body standards according to the information received from family, peers, media and social media, then internalize these standards and judge themselves according to these standards; the result of this self-judgment (mostly negative) affects their emotional state about their body image (Ip & Ho, 2019). People are constantly exposed to different media and interpersonal messages about the importance of appearance (like diet advertisements in women's magazines), so they get more worried about their appearance and consequently get more open to use different appearance-change methods in order to achieve cultural beauty standards (Henderson-King & Henderson-King; 2005).

Among all sociocultural factors and socialization agents that influence body image, media is the most important source of information and reinforcement in formation of beauty ideals and how to attain them (Keer, 2010). Media as a "super-peer" clearly influence body image by defining the ideal body shape via images available to everybody in magazines, TV programs, or films (Hogan & Strasburger, 2008). TV programs and advertisements as well as print media, electronic media and internet, provide a major part of knowledge and guidance in development of consuming behaviors including images of body and body enhancement behaviors (Tari, 2008). Many studies demonstrated that awareness and internalization of societal standards of beauty and attractiveness which is consistently shown in media in different forms, lead to negative body image in women and rejection of themselves that may extend serious body change behaviors (Keer, 2010).

On the other hand, while existing research has demonstrated a relationship between media exposure and negative body image, today the popularity and availability of more interactive forms of media like social media and Internet, has overtaken the conventional media; thus more research is needed to understand the effect of social media on body image and appearance changing behaviors as well (Walker et al., 2019; Fardouly et al., 2015; Mingoia et al, 2017).

According to above-stated importance of sociocultural influences on body image and individual's decision to have cosmetic procedures, in the present study we intend to

explore the relationship between media and social media influence, body image and intention to undergo cosmetic surgical and non-surgical procedures.

## **1.2 Importance of the Topic**

The number of cosmetic procedures is showing a tremendous increase in today's world. The number of cosmetic procedures has increased about 882% in the United States between 1992 and 2008 (over \$10 billion); and more than tripled in the U.K. between 2003 and 2008 (Calogero et al., 2010). The American Society for Aesthetic Plastic Surgery (ASPS) reported that the number of cosmetic surgical and nonsurgical procedures performed in the United States in 1997 was 2,099,173 while almost 10 years later this number has increased dramatically to 11,456,768 procedures which show a 500% increase since 1997 (Shridharani et al., 2010; Sarwer et al., 2008). According to ASPS reports, the total number of cosmetic procedures performed in the United States in 2018 has increased 163% since 2000 (ASPS, 2018) and also there has been a 300% rise in cosmetic procedures since 2002 in the United Kingdom (Higgins & Wysong, 2018).

However, the increasing number of elective cosmetic procedures is not limited to western countries. International Society of Aesthetic Plastic Surgery (ISAPS) reported that the total number of surgical and non-surgical cosmetic procedures performed globally in 2014 was 20,236,901 while this number has increased to 23,390,542 procedures in 2017, including 10,766,848 surgical and 12,623,694 non-surgical procedures (ISAPS, 2017a). The global cosmetic procedures, showed an overall increase of 9% in surgical (10,273,882 procedures) and non-surgical cosmetic procedures (13,196,634 procedures) in 2016 and an overall increase of 5% in just surgical cosmetic procedures (10,766,848 procedures) in 2017 (ISAPS, 2017).

As a result of technological advances, the globalization of body ideals and globalized market of cosmetic products and cosmetic surgery as well as appearance-focused advertising messages, today Asian consumers tend to adopt a Western-style through cosmetic surgery insofar as cosmetic surgery has become a popular trend among young women to cure emotional problems like low self-esteem and improve self-identity (Watchravesringkan, 2008). Cosmetic surgery has become so popular in Asia that having a cosmetic procedure has become as easy as getting a dental brace. This trend not only shows the increasing social pressure on Asian women to adapt to western body ideals, but

also shows that Asians have adopted and internalized the Western ideals of beauty (Aquino & Steinkamp, 2016).

Likewise in Iran, having an attractive appearance has been increasingly important for the individual's identity and Western beauty standards (e.g. slimness) which are not similar to Iranian beauty standard of the past generations (e.g. fleshy body), have been widely adopted; consequently many women are engaging in different body enhancement behaviors like cosmetic surgeries (Zare et al., 2014). The beauty fever among Iranian women has resulted in different types of unconventional makeup, fashion models and growing number of beauty salons, surgical clinics and cosmetic procedures to the extent that many women and girls do not want to be seen or leave home without makeup despite having a beautiful face (Naghsh & Vafakhah, 2017). The importance of body image in Iranian culture has recently increased to the degree that a great amount of time, money and effort is being spent mostly by women in order to enhance their appearances toward an ideal body (Alipoor et al., 2009). At least 16 million dollars are spent annually in Iran only on cosmetic surgical procedures and about 52 women are losing their lives due to liposuction each year (Souri & Porjorat 2017). The history of cosmetic surgery in Iran backs to 1955, while it has developed in recent decades insofar as today cosmetic surgery in Iran is known more as a profitable business rather than a medical specialty (Zare et al., 2014). So due to the wide acceptance and the increasing number of cosmetic procedures performed in Iran, it seems necessary to examine the underlying factors and environmental and personal agents affecting the desire for cosmetic procedures in Iran.

Among numerous factors that have been studied in this context, an increasing attention has been drawn to the relationship between sociocultural influences, body image and cosmetic surgery intention. Studying body image as a main influential factor is essential to explore individual's motives to engage in cosmetic procedures. On the other hand, as explained above, body image is highly formed by social and cultural influences. Among sociocultural influences on body image, the role of media is especially important because media play a powerful role in communicating the dominant standards of the ideal body and put pressure on women to accept and approximate these ideal (even if these ideals are unattainable or unrealistic) which can lead to development of negative body image (Heinberg et al., 1995).

Accordingly, in this study we intend to examine the effect of media (including conventional and social media) on both body image attitude and intention to undergo cosmetic surgical and non-surgical procedures.

Although there are researches explained the relations between sociocultural influences, body image and appearance-changing strategies, there are several gaps in our knowledge that we aim to address them in the current study:

As mentioned before, negative body image is one of the most important factors that motivate people to undergo cosmetic procedures. Several studies have noticed that cosmetic surgery patients report high levels of body image dissatisfaction before surgery (Sarwer, 2007). Clearly, physical appearance is a common concern of cosmetic surgery seekers but as it is seen in the literature, most of the researches (especially in Iran) focused only on the individual's *evaluation* of the body image (i.e. body dissatisfaction) and neglect *the importance or prominence* of the body image (i.e. appearance investment) for the individual (Cash, Melnyk & Hrabosky, 2004). Since body image is conceptualized as a person's perceptions, thoughts and feelings about his or her body, it is clear that body image is a multidimensional construct that cannot be defined adequately by a single dimension, like the degree of body satisfaction (Cash, 1994). One of the common mistakes in measurement of body image is that when researchers talk about body image, they are often thinking about body image satisfaction which refers to only one aspect of body image (Thompson, 2004).

Cash (1994) also mentioned that researchers should not consider attitudinal aspect of body image as a single construct of dissatisfaction; for an accurate prediction of body image attitude we need both evaluative and cognitive-behavioral dimensions of body image, because according to the regression analysis, body-image is an incremental function of both evaluation and investment dimensions of body image. Weller and Dziegielewski (2005) also recommended that it is useful to use appearance investment scales beside of body satisfaction scales -which normally used in most of the studies; appearance investment scales can measure the importance, meaning and effects of appearance in one's life which is necessary for a better body image attitude assessment. Sarwer et al. (1998a) noted that people seeking cosmetic procedures obtain much of their self-esteem from their appearance (high appearance investment) because the physical

body is a critical and important part of their sense of self insofar as the physical body is a representation of their self. Since only a small number of studies in the context of cosmetic surgery investigated the role of body image with both dimensions (Ip and Jarry, 2008), in this study we intend to address this gap by considering body image attitude as a variable comprised of both dimensions of body image dissatisfaction and appearance investment.

Another gap that is addressed in this study is ignorance of the influence of media as a source of information, in previous studies. Although Thompson et al. (2004) as well as Harrison (2009) proposed three distinct constructs for sociocultural influence or media influence (i.e. pressure, information and internalization); most of the previous studies in this context have studied media influence with only the pressure and/or internalization constructs (e.g. Nerini et al., 2014; Johnson et al., 2015 and Menzal et al., 2011). People form their ideal body standards according to the information received from the media and the awareness that media has built (Ip & Ho, 2019). This awareness about what is defined as beautiful in the society and information about attractiveness ideals and how attain them is the first step in formation of attitudes towards body image and body change behaviors. So in this study we addressed this gap by considering media information as a distinct construct in order to examine media influence more accurately.

As we stated earlier, sociocultural influence variables specially media are powerful determinants of body image experience and appearance-change behaviors to the extent that body image is mostly studied through sociocultural models. Among several versions of sociocultural model, which explain how social and cultural influences (e.g. media) affect women's body image, a dominant one is the Tripartite Influence Model (Thompson et al., 1999), which suggests that perceived appearance pressures from family, friends, and the media (including direct comments about appearance and indirect messages through praise and promotion of an ideal body shape) lead to body dissatisfaction and body shaping behaviors (Huxley et al., 2015). Among these three sociocultural sources, the negative impact of mass media on people's body image has been studied for decades, but today regarding the increasing usage of social media, exploring the effects of these new media on body image has recently received attention (Fardouly & Vartanian, 2016). Although studies on the effect of media on body image are mostly focused on traditional media, the time spent on social networking sites, was found to be positively correlated

with negative body image (Cohen et al., 2017; Brown & Tiggemann, 2016) and appearance-change strategies (Vries et al., 2014). Considering that there are few if any studies studying the social media influence in this context, in this study we examined the influence of both mass media and social media on body image and intention to undergo cosmetic procedures.

On the other hand while it is found that social media influence on individual's attitude toward body image and cosmetic procedures happens through the same mechanisms by which mass media make its negative effects (e.g. internalization, self-objectification and appearance comparisons), we could not find any research that question the mechanism of social media influence on body image through 3 sub-scale of internalization, pressure and information. To the best knowledge of authors all the researches on the effect of social media on body image and cosmetic surgery intention, only examined the *time spent in social media* or *social media exposure* rather than the social media influence (i.e. pressure, information and internalization). However, Thompson et al. (1999) suggested that assessment of media exposure that initially was used widespread among researchers, has been abandoned, because more subjective indicators of media influence, such as pressure or internalization seems to be more directly related to body image (Cafri et al., 2005). In this study, we address this gap for the first time by extending three sociocultural sources of influences (proposed by Tripartite Influence Model) into social media in order to examine the role of media including both conventional and social forms, on body image and intention to undergo cosmetic procedures. Indeed we expanded the Tripartite Influence Model to include an additional source of sociocultural pressure and information (i.e. social media) which is supposed to be influential on body image and body change behaviors.

### **1.3 Research Objectives**

In this study we aim to explore the role of conventional media and social media influences on body image and intention to undergo cosmetic procedures through the Tripartite Influence Model.

In other words, this study is aimed to examine the influence of media pressure and media information on intention to undergo cosmetic procedures with the mediating role of of internalization and body image among Iranian women.

## 2. LITERATURE REVIEW

### 2.1 Cosmetic Surgical and Non-Surgical Procedures

Cosmetic surgery is defined as a specific plastic surgery field, associated with the restoration, reconstruction or alteration of body in order to enhance body's appearance (Griffiths & Mullock, 2018). Cosmetic procedures are defined as elective medical procedures (ranged from complex operations like rhinoplasty to simple procedures like laser hair removal) aiming at reshaping appearance of healthy body parts in order to approximate contemporary beauty ideals (Wen, 2017).

The American Academy of Cosmetic Surgery (AACS)<sup>3</sup> describes cosmetic surgery as a unique discipline of medicine focused on enhancing appearance through surgical and medical techniques performed on all areas of the head, neck and body. The Australian Inter-Jurisdictional Cosmetic Surgery Working Group, defined cosmetic surgical and non-surgical procedures as “Operations and other procedures that revise or change the appearance, color, texture, structure or position of normal bodily features with the sole intention of achieving what the patient perceives to be a more desirable appearance or boosting the patient's self-esteem” (Final Report of Australian Health Ministers' Conference, 2011; P.7).

It is noteworthy that cosmetic surgery and plastic surgery are closely related specialties, but there is a distinction between them (Ip & Ho, 2019). Plastic surgery is a specialty field involving different reconstructive and regenerative procedures such as brachial plexus injuries, correction of congenital cranio-facial abnormalities, ectropion repair, hand fractures, breast reconstruction, and burn care (Fraser et al., 2017) which is generally undertaken by people with burns, scars, injuries, cancer-damage deformities or congenital diseases (Körpe, 2017). On the contrary, cosmetic surgery is elective and has no medical justification; people undergone cosmetic surgery just to modify their appearance (Zare et al., 2014). As the American Board of Cosmetic surgery<sup>4</sup> stated, cosmetic surgery entirely focuses on improving the appearance of certain parts of body

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<sup>3</sup><https://www.cosmeticsurgery.org/page/CosmeticSurgery>

<sup>4</sup><https://www.americanboardcosmeticsurgery.org/patient-resources/cosmetic-surgery-vs-plastic-surgery/>

(that individual feels unsatisfied with), while plastic surgery focuses on reconstructing facial and body defects and correcting dysfunctional areas of the body because of burns, disease, trauma or birth disorders. Cosmetic surgery is entirely elective in nature because treated areas function properly but lack aesthetic appeal whereas plastic surgery is reconstructive in nature and intended to correct dysfunctional areas and physical imperfections of body (AACS<sup>5</sup>).

The International Society of Aesthetic Plastic Surgery (ISAPS) categorized cosmetic procedures into surgical and nonsurgical procedures as seen in Table 2-1:

**Table 2-1. ISAPS categorization of cosmetic procedures**

<b>Surgical cosmetic procedures</b>	Face & head	brow lift, ear surgery, eyelid surgery, facelift, facial bone contouring, fat grafting-face, neck lift, hair transplantation, rhinoplasty
	Breast	breast augmentation (saline, silicone, fat transfer), breast implant removal, breast lift, breast reduction, gynecomastia
	Body & extremities	abdominoplasty, buttock augmentation (implants only, fat transfer), buttock lift, liposuction, lower body lift, penile enlargement, thigh lift, upper arm lift, upper body lift, labiaplasty, vaginal rejuvenation
<b>Non-surgical cosmetic procedures</b>	Injectables	botulinum toxin, calcium hydroxylapatite, hyaluronic acid, poly-L-lactic acid
	Facial rejuvenation	chemical peel, full field ablative, micro-ablative resurfacing, dermabrasion, microdermabrasion, nonsurgical skin tightening, photo rejuvenation, polymethylmethacrylate
	Other	cellulite treatment, laser hair removal, nonsurgical fat reduction, tattoo removal, treatment of leg veins, sclerotherapy

### 2.1.1 Demand for cosmetic procedures around the world

The International Society of Aesthetic Plastic Surgery (ISAPS) founded in 1970, with more than 4000 member plastic surgeons in 105 countries, sends questionnaire to approximately 35,000 plastic surgeons around the world in order to provide annual statistics about the number and type of cosmetic procedures performed around the world

<sup>5</sup><https://www.cosmeticsurgery.org/page/CosmeticSurgery>

(ISAPS<sup>6</sup>, 2017b). Heidekrueger et al. (2017) noted that ISAPS is the only organization that collects this data on a global scale and the most comprehensive data source available on worldwide cosmetic procedures. In this section we intent to examine the demand for cosmetic procedures around the world according to the ISAPS statistics.

In terms of popularity of cosmetic surgical procedures, ISAPS (2016 and 2017b) reported that breast augmentation was the world's most popular cosmetic procedure in 2016 and 2017, followed by liposuction, eyelid surgery, rhinoplasty and abdominoplasty. In 2019 also breast augmentation continued to be the world's most popular cosmetic procedure (1,795,551 procedures) accounting for 15.8% of the whole cosmetic surgeries, followed by liposuction (1,704,786 procedures), eyelid surgery (1,259,839 procedures), abdominoplasty (924,031 procedures) and rhinoplasty (821,890 procedures) (ISPAS, 2019a).

Cosmetic non-surgical procedures also have become increasingly popular over the past decade. According to the ISAPS statistics of the total procedures performed worldwide in 2019, the number of surgical procedures was 11,363,569 procedures, while the number of the performed non-surgical procedures was 13,618,735 (ISAPS, 2019a). According to ASPS (2018) surgical procedures done in 2018 in USA accounted for 10.23% (1,811,740) of the total number of procedures while non-surgical procedures (e.g., Botox) represented 89.77% (15,909,931) of the total number.

Among non-surgical procedures the most popular procedure is injectables with Botulinum Toxin (Botox Injection) with 4,627,752 procedures in 2016 (ISAPS, 2016) and 5,033,693 procedures in 2017 (ISPAS, 2017b). In 2019, Botulinum Toxin still remained the most popular cosmetic non-surgical procedure with 6,271,488 procedures (46.1 %), followed by Hyaluronic Acid (31.7%), Hair Removal (7.7%), Nonsurgical Fat Reduction (3.4%) and Photo Rejuvenation (2.9%) (ISAPS, 2019a).

Global prevalence of acne and other skin-related conditions such as rapidly aging population and increasing concerns about wrinkles has driven the nonsurgical procedures segment which is anticipated to grow at a higher rate in the future (Grand View Research

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<sup>6</sup>[https://www.isaps.org/wp-content/uploads/2018/10/2017-Global-Survey-Press-Release-Demand-for-Cosmetic-Surgery-Procedures-Around-The-World-Continues-To-Skyrocket\\_2\\_RW.pdf](https://www.isaps.org/wp-content/uploads/2018/10/2017-Global-Survey-Press-Release-Demand-for-Cosmetic-Surgery-Procedures-Around-The-World-Continues-To-Skyrocket_2_RW.pdf)

Inc.<sup>7</sup>, July 2017). Reduced recovery time and cost, easy availability and improvements in quality and variety of procedures have contributed to the acceptance and growth of cosmetic non-surgical procedures as a means of enhancing physical appearance (Sood, et al., 2017).

From the gender point of view statistics showed that women drive the demand for cosmetic procedures in 2017, accounting for 86.4%, while men accounted for 14.4% of cosmetic patients worldwide (ISAPS, 2017b). In 2019, women accounted for 86.9% of all cosmetic procedures while men accounted for only 13.1% of all cosmetic procedures (ISAPS, 2019a). It seems that women are more likely than men to experience body image problems that are mostly caused by social messages about female roles and expectations (Alipoor et al., 2009; Schofield et al., 2002). The main part of body image and cosmetic surgery studies has focused on women because compared to men, women are exposed to a higher level of appearance-related social pressure (Vartanian, 2009). Most of the advertisements and promotions of cosmetic surgery targeted women primarily, and women make up the vast majority of the patient population insofar as women made up almost 90% of all cosmetic surgery patients in the United States in 2007 (Figueroa et al., 2008).

From the age point of view, as ISAPS reported, the rates of cosmetic surgery have increased for patients between the ages of 13 and 55, but those whose age ranged from 35 to 50 constitute 38.8% of both surgical and nonsurgical patients. It is reported that patients have become younger during the time (ISAPS, 2016). In 2019, about 12.2% of cosmetic procedures around the world, have been performed on people younger than 18 (ISAPS, 2019 a). Most of the surgical and non-surgical procedures are performed on women aged 35-50 in 2019 (ISAPS, 2019b).

Regarding the total number of cosmetic procedures in 2016, the top five countries according to ISAPS (see Table 2-2) are USA, Brazil, Japan, Italy and Mexico that account for 41.4% of the world's cosmetic procedures, followed by Russia, India, Turkey, Germany and France; Iran ranks number 10 in 2013 and number 20 in 2016 (ISAPS,

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<sup>7</sup><https://www.grandviewresearch.com/industry-analysis/cosmetic-surgery-procedure-market>

2016). In 2019, the top 10 countries were USA, Brazil, Japan, Mexico, Italy, Germany, Turkey, France, India, and Russia (ISAPS, 2019b).

It is worthy to mention that it is difficult to find a reliable data on the number of cosmetic procedures done annually in Iran (Kaivanara, 2017; Nikoogoftar & Minoosepehr, 2015). Although the most comprehensive data is reported by ISPAS, we need to consider that these reports indicates only the number of procedures done by ISPAS members (listed in Table 2-2) and there is no data about cosmetic surgeries carried out by surgeons who are not members of ISPAS. The only available data about the total number of various procedures undertaken in Iran is related to 2013 and 2016 (given in Table 2-2), which is likely an underestimation of the real number of people who undergo these procedures, because they are reported only by a limited number of member surgeons.

**Table 2-2.** *Statistics on various CPs in Iran– 2013 and 2016 (ISAPS)*

		<b>2013</b>	<b>2016</b>	<b>2017</b>
<b>Number of ISPAS member Surgeons</b>		238	238	324
<b>Surgical Procedures</b>	Face and Head	56,944	46,096	-
	Breast	26,732	22,777	-
	Body & Extremities	22,260	25,161	-
	Other	12,143	-	-
<b>Total surgical procedures</b>		118,079	94,034	-
<b>Total non-surgical procedures</b>		56,699	57,406	-
<b>Total number of procedures</b>		174,778	151,439	-

Although there is no official statistic on the number of cosmetic procedures done in Iran, Iran has been known as one of the world's leading centers for cosmetic surgery and specifically the center of nose job (Sharifi et al., 2016; Nikoogoftar & Minoosepehr, 2015) and even named as the “nose job capital of the world” (Zahedi, 2008; Kaivanara, 2017). As a less official report, The Guardian’s Tehran bureau<sup>8</sup> claimed that Iran is a world leader in plastic surgery, with 200,000 nose jobs every year. The news of British and Brazilian porn stars who travelled to Iran in order to have a rhinoplasty in Tehran in 2016 provoked large coverage on social media reported by BBC news<sup>9</sup>. They stated that:

<sup>8</sup><https://www.theguardian.com/world/iran-blog/2013/mar/01/beauty-obsession-iran-cosmetic-surgery>

<sup>9</sup><https://www.bbc.com/news/blogs-trending-36954386>

“Despite the high cost of cosmetic surgery procedures, which can run up to five to six times the average monthly wage, Iran has a plastic surgery rate similar to that of Brazil, where cosmetic surgery is so prevalent that doctors offer low-income discounts”. ISAPS (2013) also reported that Iran has jumped into the world’s top 10 countries performing plastic surgery in 2013 and also ranked fourth worldwide - after Brazil, Mexico and the United States - for nose jobs (see Table 2-3).

**Table 2-3.** *Top 10 Countries by Number of nose jobs in 2013 (ISAPS, 2013)*

<b>Rank</b>	<b>Country</b>	<b>Number of rhinoplasty</b>	<b>Percentage</b>
<b>1</b>	Brazil	77,224	8.1%
<b>2</b>	Mexico	50,437	5.3%
<b>3</b>	USA	45,998	4.8%
<b>4</b>	<b>Iran</b>	<b>37,423</b>	<b>3.9%</b>
<b>5</b>	Germany	30,872	3.2%
<b>6</b>	Colombia	24,919	2.6%
<b>7</b>	Italy	15,200	1.6%
<b>8</b>	Venezuela	14,919	1.6%
<b>9</b>	Spain	10,946	1.1%
<b>10</b>	Argentina	9,549	1.0%

## 2.2 Body Image

Body image is conceptualized as the multidimensional, subjective and dynamic psychological experience of embodiment, that encompasses our self-perceptions and self-attitudes toward our own bodies including thoughts, beliefs, feelings, and behaviors regarding our looks (Cash, 2004; Cash & Smolak, 2011). It refers to our subjective perceptions, thoughts, and feelings towards our bodies including the relative importance of appearance, the degree of satisfaction with appearance and the perception of appearance (Higgins & Wyson, 2018). Body image is a part of self-concept and self-image, including some dimensions like cognitive or how we think we look; and emotional or feelings we have about our looks (Alipoor et al., 2009).

Psychologists define body image as an "inside view" of one’s body referring to our subjective experiences of our own looks which is different from “out-side view” since we do not see ourselves as others see us (Cash & Grant, 1996). That’s why a good physical appearance can not guarantee a positive body image and being homely does not

necessarily cause a poor body image (Cash, 1996). In the same way body image theories suggest that there is often a poor association between individuals' objective physical appearance and their level of body image dissatisfaction (Sarwer et al., 1998b).

Body image encompasses not only the aesthetic characteristics and appearance of the body, but also individual's state of health, strength, skills and sexuality (Körpe, 2017; Neagu, 2015). Among all these factors, physical appearance is the most important part of body image because it is the first and main source of information that is available to people in social interactions (Sarwer & Crerand, 2004; Mulken et al., 2012). Similarly, Cash, Melnyk and Hrabosky (2004) describe body image as subjective perceptual and attitudinal experiences about one's body, especially one's physical appearance.

Body image has been assessed through two main methods (with different instruments) in the literature; body image as a perceptual construct and body image as an attitudinal construct; the latter is more frequently used (Cash, 1994; Cash & Grant, 1996) therefore will be used in the present study too:

1. *The perceptual construct* of body image refers to the accuracy of person's estimation of his/her physical size (Cash & Grant, 1996). Overestimation or a significant difference between the actual body size and individual's subjective judgment of that size, can lead to body dissatisfaction (Neagu, 2015).
2. *The attitudinal construct* of body image which assess individuals' affective, cognitive, and behavioral evaluations toward their appearance (Cash & Grant, 1996). This construct is considered to contain two distinct and uncorrelated dimensions; an evaluative or affective dimension (or appearance evaluation) and a cognitive-behavioral investment dimension (or appearance orientation) (Thompson, 2004).

*Appearance evaluation or body dissatisfaction* refers to the individuals' judgmental thoughts and beliefs related to their body (Slevec & Tiggemann, 2010). Body image dissatisfaction is defined as the negative evaluations of one's body, shape and weight, which is caused by the difference between societal body ideals and person's body characteristics (Cohen & Blaszczynski, 2015). In other words, body image dissatisfaction refers to the degree of individual's satisfaction with his/her appearance regarding to the difference between his/her self-perceived body attributes and his/her internalized body

ideals (Cash, 2005; Cash, 1994). Negative evaluations of body image may happen on different levels ranging from dislike (or desire to look more attractive) to dissatisfaction (that can lead to preoccupation with appearance) or even to body dysmorphic disorder which refers to an extreme engagement with an imagined or small imperfection in appearance insofar as it become a psychological disorder and leads to ugliness syndrome, excessive concerns and avoidance of social situations (Sarwer et al., 1998b).

*Appearance Orientation* or *Appearance Investment* refers to the perceived importance, significance, and effects of appearance in one's life, or the extent to which people organize and process self-relevant information based on their physical appearance (Chang et al., 2014). Appearance investment or individual's attitude toward the importance of appearance, represents the degree that individuals' attention, thoughts, and behaviors focus on appearance (e.g. investing a large amount of money and effort to maintain or enhance appearance) and consequently define their sense of self-worth (their self-worth is contingent on evaluations of their body) (Yeh, 2015). In other words appearance investment refers to the importance of appearance to an individual's sense of self which means people who have highly invested on their appearance, place a great importance on their physical appearance and evaluates themselves based on how they look (Argyrides & Kkeli, 2013a).

### **2.3 Intention to Undergo Cosmetic Procedures and the Role of Body Image**

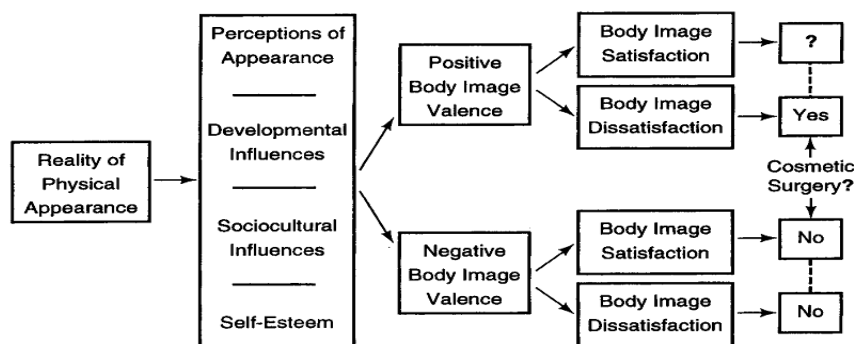
Purchase intention refers to the consumer's tendency or likeliness to buy a specific product or service; the stronger the purchase intention, the greater the consumer's desire to purchase a product (Lee et al., 2019). Purchase intention is the desire to acquire a certain product or service; it happens when a consumer intend, consider or plans to buy a product or service in the future (Shaukat et al., 2018).

Intention to buy a product or service arises as a result of consumer's awareness of his/her needs that must be fulfilled and can be influenced by many internal and environmental impulses during purchasing process (Sulu et al., 2016). Many factors have been proposed to be influential on individuals' intention to undergo cosmetic procedures such as negative body image, appearance-based self-esteem, anxiety, personality traits, celebrity worship, materialism, parental attitudes, appearance-related teasing and internalization of body ideals of media (Calogero et al., 2010). Among all these factors,

many studies revealed that the most important reason and the key motivator for undergoing cosmetic surgery is negative body image attitude (Sarwer, 2007; Slevac & Tiggemann, 2010) insofar it is said that “cosmetic surgery is body image surgery” (Sarwer et al, 1998a ; p. 10).

Body image has been a useful construct for understanding many of appearance-related subjects like eating disorders, appearance-related concerns and appearance changing strategies (Altabe & Thompson, 1996). The subjective nature of body image is obviously associated with cosmetic surgery intention, because the important thing, is individual s’ subjective thought and feelings about their bodies (i.e. body image), not their actual body shape and weight (Henderson-King & Henderson-King, 2005).

According to Sarwer et al. (1998a) theoretical model of the relationship between body image and cosmetic surgery<sup>10</sup> (see Figure 2-1), individuals who are dissatisfied significantly with their body images (low body image value<sup>11</sup>) and invested significantly on their appearances (high body image valence<sup>12</sup>) have an above-average tendency to undergo cosmetic surgery (Slevac & Tiggemann, 2010; Sarwer et al., 2004; Sharp et al., 2014).



**Figure 2-1.** Theoretical model of the relationship between body image and cosmetic surgery proposed by Sarwer et al. (1998a, p. 10)

Many researches and clinical reports suggested that body image dissatisfaction is a main psycho-social factor associated with undergoing cosmetic surgery (Schofield et al.,

<sup>10</sup>This model can be used for both surgical and nonsurgical cosmetic procedures (Sarwer & Crerand, 2004)

<sup>11</sup>Sarwer et al. (1998a) used the term “*body image value*” instead of “body image evaluation” which refers to the degree to which one is satisfied with his/her own appearance.

<sup>12</sup>They also used the term “*body image valence*” instead of “body image investment” which refers to the importance of body image to one’s self-esteem.

2002). Henderson-King and Henderson-King (2005) examined a sample of 261 students at the University of Michigan and indicated that body image dissatisfaction is related to acceptance of cosmetic surgery. Veale et al. (2013) demonstrated that women seeking labiaplasty express increased dissatisfaction towards the appearance of their genitalia. According to the data collected from 290 individuals applied for cosmetic surgery in Iran, Farshidfar et al. (2013) demonstrated that negative body image and conformity can predict acceptance of cosmetic surgery.

Regarding the other dimension of body image attitude (i.e. appearance investment), Sarwer et al. (2005) indicated that appearance investment plays an important role in decision to undergo cosmetic surgery. Nikoogoftar and Minoosepehr (2015), indicated that appearance investment is related to attitudes toward cosmetic surgery. McCabe and Ricciardelli (2003) also demonstrated that the most consistent predictor of weight loss/gain as an appearance-change strategy is body image importance (appearance investment). Furthermore, Vries et al. (2014) indicated that social network site use predict adolescents' desire to undergo cosmetic surgery indirectly through appearance investment. The results of a study on adolescent girls in Sweden revealed that the most powerful motivation to undergo cosmetic surgery was to overcome low body-esteem which means they consider cosmetic surgery as an effective means to overcome poor body-esteem (Burén & Lunde, 2016).

In the same way Soest et al. (2006) have shown that both body image variables are the strongest predictors of cosmetic surgery motivation; body image evaluation was rated lower while body image orientation rated higher among cosmetic surgery seekers. It is thought that the interaction between both dimensions of body image, influence a person's decision to undergo cosmetic procedures (sarwer & crerand, 2004).

## **2.4 Factors Affecting Body Image Attitude**

Body image is a dynamic concept that can change in different contexts such as specific age, media exposure or various health statuses (Van den Berg et al., 2002). Body image is a multidimensional construct that is influenced by biological, psychological, and social factors (Hogan & Strasburger, 2008). There are many factors proved to affect body image in a negative way in the literature; appearance-related teasing or negative

comments from parents and peers, perceived appearance pressures, early maturity, negative sexual experiences, low self-esteem, psychological disorders, negative emotions, developmental challenges, and social comparison tendency (Thompson & Heinberg, 1999; Thompson et al., 2004). The level of experienced negative body image is associated to various factors such as individual's biological factors (e.g. genetic traits or BMI<sup>13</sup>), personal factors (e.g. self-esteem, depression, perfectionism), interpersonal factors (e.g. family, peers and media), and cultural factors (e.g. social values and norms) (Neagu, 2015).

Sarwer et al. (1998a) categorized factors that influence individual's body image attitude as (a) *perceptual factors* (subjective evaluation of the size, shape, and texture of one's physical appearance); (b) *developmental factors* (the effect of childhood and adolescent experiences to body image; like maturation timing, teasing history, negative sexual experiences); (c) *sociocultural factors* (cultural beauty ideals and social expectations defined by the media); and (d) *self-esteem*. Among all these factors, sociocultural factors and particularly media have been considered as the most important factors affecting body image (Vartanian; 2009), because interpersonal communications and media influences are the main sources that form body image attitudes (Cafri et al., 2005; McCabe & Ricciardelli, 2003).

#### **2.4.1 Sociocultural Influences and Body Image**

Sociocultural theories which constitute an important part of the body image literature, examine the role of social factors on body image. Sociocultural models examine the influence of social factors (e.g. media, friends, family) as underlying factors that affect an individual's tendency to adopt unrealistic ideal appearance standards, develop body image dissatisfaction and desire for cosmetic surgery (Nikoogoftar & Minoosepehr, 2015). Social agents such as family, peers and media, define beauty standards, reward physical attractiveness and exert social pressure toward beauty and attractiveness (Weller & Dziegielewski, 2005). Body image is socially and culturally determined; every culture defines the social meanings and the standards of beauty (how one should look); social messages transmit those standards and also provide feedback about our goodness of fit

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<sup>13</sup>Body mass index

with them; we internalize these beauty ideals and evaluate ourselves against them; finally our body image depends on how well we match to those ideals (Cash & Grant, 1996).

Since sociocultural influences are powerful determinants of body image, a considerable number of research have been done on the effect of sociocultural factors that contribute to the development of negative body image (Helfert & Warschburger, 2013). One of the well known sociocultural models with strong empirical support is the Tripartite Influence Model proposed by Thompson et al. (1999), which suggests that individuals are pressured by powerful social agents (i.e., peers, family, and the media) to internalize culturally-determined appearance ideals (often unattainable ideals) which in turn can cause body dissatisfaction, and unhealthy body change practices (Schaefer et al., 2015). This model propose three sociocultural influences (parents, peers and media) and two mediators (internalization of appearance ideals and social comparison) as potential predictors of body dissatisfaction and eating disorder; which can be applied to examine motives for engaging in cosmetic procedures as well (Menzel et al., 2011). This model suggests that internalization of cultural beauty standards and appearance comparison, together translate family, peer, and media pressures into body image and body modification behaviors; sociocultural pressures socialize women to accept and internalize cultural beauty standards as their own, and compare themselves with them, which often results in negative body image (Moradi, 2016).

The Tripartite Influence Model has been used in different cultural samples and studies and seems to be a viable model for studying risk factors of negative body image and appearance change behaviors (Robert-McComb & Massey-Stokes, 2014). According to this model, three main social sources, transmit (information) and reinforce (pressure) beauty and attractiveness ideals (Thompson et al., 1999); they can both directly and indirectly affect body image attitudes and related behaviors like eating disorders, tanning, exercise or cosmetic procedures (Sharp et al., 2014). As mentioned above, the indirect effects happen through two mechanisms (mediator): *internalization of society's appearance ideals* and *social comparison* (Shahyad et al., 2018). The internalization of appearance ideals and social comparison mediate the relationship between media, family and peer influence (appearance conversations, perception of teasing and peer attributions), and the desire for cosmetic surgery (Nerini et al., 2014).

The internalization of societal standards of attractiveness refers to the acceptance of socially defined ideals of attractiveness, to the extent that these ideal standards affects one's attitudes (body image) or behaviors (e.g. dieting) and drive them to approximate those standards (Thompson & Stice, 2001). The individual's tendency to internalize appearance related media messages is regarded as a mediator between exposure to those messages and the development of negative body image (Thompson & Heinberg, 1999).

On the other hand, social comparison theory claims that people desire to compare themselves with others (particularly with similar others) on attributes that are central to their definition of self, for the sake of an assessment and evaluation about themselves (Brown & Tiggemann, 2016). Indeed appearance comparison is defined as a comparison between societal standards and personal characteristics of appearance, which consequently can develop body image dissatisfaction (Cohen & Blaszczynski, 2015). Women compare themselves automatically with advertising models and beauty standards; upward comparisons decrease and downward comparisons increase their body satisfaction (Smeesters & Mandel, 2006). Indeed sociocultural models of body image propose that women, who have a greater tendency to compare their appearance to others frequently, show higher levels of body dissatisfaction (Fardouly et al., 2015).

In this study like some of previous studies on the Tripartite Influence Model (e.g. Johnson et al., 2015; Tylka, 2011; Myers & Crowther, 2007 and Menzal et al., 2011), we intend to examine only the mediating role of internalization but not social comparisons because of two reasons. First, we have already expanded the model to include social media as an additional influence source, the second construct of media influence (i.e. information) and the second dimension of body image (i.e. appearance investment), which can cause many paths and complicity in the analyses. So we excluded social comparison to avoid more complexity in the research model. Second, the scale we have used for assessing internalization, includes items that tap into appearance comparisons (Huxley et al., 2015) like "I compare my appearance to the appearance of people who are on TV or in magazines", which can result in overlap between two constructs that may cause problems in analysis.

In the following parts of this chapter, we will explain more about the sources and constructs of sociocultural influences and examine how these sources exert effects on body image and intention to undergo cosmetic procedures.

### **2.4.2 Three primary core sources of influence on body image**

As stated earlier Thompson et al. (1999) proposed Tripartite Influence Model which suggests three primary sources of sociocultural influence on the development of body image problems and related behaviors: peers, parents, and media (Cash, 2005).

While this model suggested peers, parents, and media as main sources of influence, we intend to examine only the role of media in this study, so both family influence and peer influence are explained briefly as one variable of interpersonal communications, just in order to provide a better understanding of the topic; however they are not included in our research model.

Also in the current study, we proposed social media as a new source of influence, besides the other sources of influence in the original model.

Accordingly in the following parts of this chapter we conceptualized sociocultural influences sources as (a) Interpersonal communications (including family and peer influences), (b) Media influence and (c) Social media influence.

#### **2.4.2.1 *Interpersonal communications***

Social agents especially the closest ones (i.e. peers and parents) transmit appearance-related ideals consciously and unconsciously, through various direct and indirect messages; they contribute to the formation of beauty ideals, determination of the appearance importance for individuals and also the strategies used to enhance attractiveness (Nerini et al., 2014). In other words, one of the factors that lead to the internalization of appearance ideals is the influence of parents and peers (Henderson-King & Brooks, 2009). For example, parents who put a lot of attention, time and money on their children's appearance, are actually forming the attitude that 'good looks are important', or 'looks are something to be worried about' in their children (Cash & Grant, 1996).

Helfert and Warschburger (2013) explained various types of appearance-related social pressure from peers and parents which affect the body image: with regard to peers'

influences, teasing, exclusion<sup>14</sup>, friends' appearance norms<sup>15</sup> and modeling<sup>16</sup>, and with regard to parental influences, parental teasing, parental disregard or ignorance, encouragement to control weight and shape and parental norms and modeling.

Many studies suggested that family (e.g. parental comments about individual's body size or appearance) and peers (e.g. peers' appearance-related evaluations and teasing) are key contributors and influencers of individuals' body image (Ip & Ho, 2019). McCabe and Ricciardelli (2003) revealed that perceived messages received from mother and father (as the first sociocultural transmitters of appearance-related messages), best male and best female friend predict body image dissatisfaction, appearance investment and desire to appearance-change strategies among adolescents. Menzel et al. (2011) indicated that interpersonal influences i.e. perceived pressures for cosmetic surgery from family, friends, and peers and significant others are negatively associated with both body image satisfaction and attitudes toward cosmetic surgery directly and indirectly. Soest et al. (2006) studied influence of some social factors like being teased or criticized as well as acceptance of cosmetic surgery in the individual's environment; they revealed that both factors are related to wish or decision to undergo cosmetic surgery; the effect of teasing history on surgery motivation was mediated by both of the body image variables.

#### **2.4.2.2 *Mass media influence***

Although there are various sources of sociocultural influences such as peers, parents and partners, the mass media—magazines, television advertisements, TV entertainment programs and music videos— is mentioned as the most powerful, influential and prevalent communicator of sociocultural norms and standards (Thompson & Heinberg, 1999; Brown & Tiggemann, 2016).

Among all sociocultural influences, mass media transmit the most powerful messages about body image; so the mass media's role in the communication of beauty and appearance-related standards and cultural stereotypes is undeniable (Robert-McComb & Massey-Stokes, 2014). Media and fashion industry can affect many of body-related consumption behaviors like make-up, clothing, hair style, body proportions, body size,

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<sup>14</sup>Being ignored because of one's appearance

<sup>15</sup>Pressure by appearance norms and the emphasis on appearance among friends

<sup>16</sup>Pressure by appearance standards and efforts of friends

shape of body parts, and even skin color, toward looking fashionable and resembling fashion models or TV stars; for example, as fuller lips are prevalent among models, lip augmentation procedures have been demanded by consumers more and more (Tari, 2008).

Objectification theory, social cognitive theory, the mass communication-focused cultivation model, and the sociocultural model on body image, all have provided theoretical explanations for mechanisms by which the media affect body image attitudes negatively (Perloff, 2014; Cohen et al., 2017). According to the Sociocultural Theory of Body Image (Thompson et al, 1999) it is believed that exposure to ideal media images repeatedly leads to internalizing those ideals and appearance comparisons, which result in body image dissatisfaction and desire to appearance changing behaviors. Repeated exposure to highly unrealistic and perfect models in advertising and media, affects consumers' perceptions of an acceptable physical appearance; while these standards set by fashion models are mostly unattainable for typical consumers (Bloch & Richins, 1992). People compare themselves with those unrealistic ideals of beauty and mostly they can't meet standard of beauty projected through the media in a natural way, it drives them to pursue those ideals by cosmetic procedures (Figuroa et al., 2008).

There is a considerable number of longitudinal and cross-sectional surveys and researches which indicate that media exposure is consistently linked with (and can predict) women's body dissatisfaction (Van den Berg et al., 2002), internalization of the unrealistic beauty ideals, and body change behaviors (Perloff, 2014). It is shown that exposure to ideal body images in the media like idealized pictures of women in ads can negatively affect women's appearance self-esteem, body-image perception and assessment of one's own attractiveness (Smeesters & Mandel, 2006).

Furnham and Levitas (2012) studied a sample of 204 British women and found that high cosmetic surgery-related media exposure and time spent on watching television are significant predictors of the desire for undergoing cosmetic surgery. Slevic and Tiggemann (2010) examined middle-aged women's attitudes toward cosmetic surgery and indicated that media variables can directly (without the mediating role of body image dissatisfaction) predict cosmetic surgery attitudes. Sharp, Tiggemann and Matisse (2014) showed that there are correlations between the mass media and both body image

dissatisfaction and cosmetic surgery attitudes. Nikoogoftar and Minoosepehr (2015) indicated that media influences had a direct and indirect effect (via appearance investment) on the tendency for cosmetic surgery.

### **2.4.2.3 Social media influence**

Although the origins of cosmetic surgeries are very old, social media is relatively new, thus studies on the effect of social media on cosmetic surgery attitude are comparatively low. Social media or social networking sites refers to the plenty of personal internet applications like Facebook, Instagram, Twitter, YouTube and Linked-In (Camp & Mills, 2012) that provides real time dissemination of information to a targeted audience (Wheeler et al., 2011). The use of social media is growing dramatically around the world insofar as in 2013, 90 percent of 16–24 year old people in the United Kingdom, and 90 percent of 18–29 year old people in the United States reported to use social networking sites (Fardouly et al., 2015). Global digital reports<sup>17</sup> revealed that in the first quarter of 2020, the number of social media users around the world has exceeded 3.8 billion users who are spending averagely 2 hours and 24 minutes daily in social media. Facebook is the most popular social media platform worldwide with almost 2.5 billion monthly active users and 300 million uploaded photos every day in 2020. YouTube has more than 2 billion logged-in visits every month and over 5 billion video views each day. Average time spent daily on Facebook is 58 minutes and on YouTube is 1 hour. Among photo/video based platforms, Instagram is ranked third after Facebook and YouTube with over 1 billion monthly active users, 600 million daily active users and 95 million uploaded photos daily<sup>18</sup>.

Social media has revolutionized the way people communicate, network, and develop relationships (Vardanian et al., 2012). Since social media has been integrated with people's daily life through different forms of communication, education, entertainment and promotion, and considering the fact that it can affect people's life-style, dieting, fashion and beauty concepts, the role of social media in body image, and decision to undergo cosmetic procedures, have received attention recently (Arab et al., 2019).

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<sup>17</sup><https://wearesocial.com/digital-2020>

<sup>18</sup><https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/>

Social media plays an important role in the growth of cosmetic procedure numbers; the presence of surgically-enhanced celebrities followed by millions of people as well as presence of cosmetic surgery providers (who claimed the active presence in social media has increased their cosmetic surgery business) result in positive attitude toward cosmetic procedure (Sood, et al., 2017). Prior to social media, Internet and websites were a dominant source of information for surgeons and patients, but the static and passive nature of the website got outdated by emergence and popularity of interactive social networking sites (Wheeler et al., 2011).

Social media is a useful tool with endless implications for plastic surgery practices (beyond personal communications and static websites) not only to connect with their patients but to educate public and form their attitudes about aesthetic surgery, stimulate interest in new procedures and making a good word-of-mouth (Camp & Mills, 2012). Results of a survey on members of the American Society of Plastic Surgeons (ASPS) demonstrated that more than half of surgeons reported using social media because they believe that social media is an effective marketing or advertising tool and provides a platform for patient education (Vardanian et al., 2012). Social media -as a powerful direct to consumer marketing tool- provides some benefits for both cosmetic surgery patients and surgeons; patients use social media to find surgeons, communicate about procedures and outcomes and also talk to other patients about the results, satisfaction and experiences; surgeons also can increase perception about their expertise and practices, educate community, remain competitive and provide an online presence which gives patients the opportunity of an easy surgical consultation (Gould et al., 2016).

But these advantages are not the only effects of social media on increasing demand for cosmetic surgery. The Internet as an additional form of media (beyond magazines and TV) and especially social networking sites also can cause appearance dissatisfaction and appearance-change behaviors (Tiggemann & Slater, 2013).

Cohen and Blaszczynski (2015) suggested that since social media like Facebook and Instagram are increasingly used and preferred rather than conventional media over the last years, it is important to explore the effects of these kind of media on the perception of body image and body image dissatisfaction as well. In many studies, participants have reported using the Internet more than any other media source; the internet is an endless supply of appearance-related content which can provide a constant access to image-

focused content (Bair et al., 2012). Social media has an undeniable influence on cosmetic procedures and their effects on peoples' lives because people spend averagely 2 hours a day on social media which may encompasses appearance-related messages or information about cosmetic procedures (Gould et al., 2016). According to Tiggemann and Slater (2013) Australian and US youth spend averagely more than 1.5 hours daily on the internet including Internet sites, social media, shopping, fashion and celebrity and magazine websites, all likely to encompass an appearance-related content which help promoting beauty norms and ideals, internalizing those ideals, body surveillance, social comparisons and finally drive for appearance-change strategies; exactly like conventional media.

Some of social media attributes such as strong peer presence and peer interactions, popularity of photo sharing, the large number of visual images posted and the predominant accessibility of mobile technology (more than were ever available with the conventional mass media), all can assist *internalization of appearance ideals*, self-objectification, and *appearance comparisons* (Cohen et al., 2017; Perloff, 2014) which are exactly the main mechanisms by which mass media impose its negative effects on body image. Exactly like exposure to idealized images in conventional media (that can increase women's negative body image), idealized images and profiles on social media also may have a negative impact on women's self-evaluations and body dissatisfaction (Fardouly et al., 2015). Since these effects are so similar to those found for traditional media (Fardouly & Vartanian, 2016) so it seems that we can expand sociocultural theories on the effect of mass media on body image, to include the contemporary forms of media like social media (Cohen et al., 2017).

Social media as an interactive platforms has merged two sources of sociocultural influences: media and peers. Traditional media (e.g. movies, TV and magazines) portray unrealistic body ideals which may lead to body dissatisfaction and body shaping behaviors, while social media do the same by altered, retouched and carefully selected photos that represent unrealistic beauty ideals and go further by reinforcing those ideals by the "likes," and "comments" under images and by increasing opportunities for social comparison with peers who may portray and reinforce the beauty ideal (Mabe et al., 2014). Exposure to attractive celebrity, fashion models and peer images on the photo-based site of Instagram (Brown and Tiggemann, 2016) and Facebook, can increase women's body image dissatisfaction (Cohen & Blaszczynski, 2015). Personal profiles

and easy and fast interaction with peers can provide the opportunity for social comparisons, which can cause body image problems (Tiggemann & Slater, 2013).

### **2.4.3 Three main sociocultural constructs**

Sociocultural influences are multidimensional variables, consisting of constructs such as media pressures or media information (Thompson et al., 2004). Cafri et al. (2005) stated that there are three sociocultural constructs (3 distinct or independent sub-dimensions) which are the most frequently assessed sociocultural factors associated with body image dissatisfaction; awareness of appearance standards, perceived appearance-related social pressure, and internalization of those standards. However compared to awareness, internalization and pressures have a significantly more powerful influence on body image.

The awareness component refers to being aware of the social emphasis on appearance (Heinberg et al., 1995) or knowing that a sociocultural appearance norm exists in the society, like “Thin women or women with long legs are more attractive” (Thompson et al., 2004; Cafri et al., 2005). Cash (2005) later mentioned that because of the poor relationship of awareness on body image evaluation, this dimension has been discarded from this assessment. Finally, Thompson et al. (2004) suggested three subscales of a sociocultural influence as distinct or independent dimensions of media influence: Pressures, Information and Internalization.

#### **2.4.3.1 *Appearance-related media pressure***

People are frequently exposed to appearance pressures from different sources such as peers’ comments and suggestions about physical appearance, beauty ideals transmitted through magazines and TV shows and advertisements related to appearance-changing strategies (Vries et al., 2014). Ideal bodies that are continuously transmitted through media, encourage people and create immense pressure to conform to these standards (Higgins & Wyson, 2018). Likewise the idealized images presented to people online especially in social media can cause social pressures as well (Tiggemann & Slater, 2013).

Literature evidence highlights that social pressure and the endorsement and acceptance of media’s appearance ideals is central to the development of negative body

image (Dakanalis et al., 2014). The appearance-related social pressures toward adaptation to social ideals, can lead to normalization of using cosmetic surgery (Furnham & Levitas, 2012) and undergo costly and risky appearance-changing strategies (Vries et al., 2014). Walden et al. (2010) study on breast augmentation patients revealed that among all sociocultural pressures, the most influential on decision making was magazine images followed by TV images, and Internet images which all contain often-retouched photos of models as well as before-and-after photographs.

#### **2.4.3.2 *Appearance-related information on media***

One of the other roles of sociocultural sources like media and family, is providing information about appearance and what one should look like (Argyrides & Kkeli, 2013b). Mass media is the most important source of various direct and indirect forms of information about physical appearance, beauty ideals and how to attain those ideals (López-Guimera et al., 2010). Women are exposed to lots of information related to beauty, fashion and the latest advances of cosmetic procedures through radio, newspapers, magazines, television advertising, celebrity images, films and especially reality TV shows that has focused on cosmetic procedures (Hunt et al., 2011).

Media not only transmits information about unrealistic physical ideals (via images available to everybody in magazines, TV programs, or films), but also provide information about how to attain this ideals (Hutchinson & Rapee, 2007). Mass media is an important part of sociocultural context that influence attitudes toward cosmetic surgery directly by providing information about cosmetic surgery and its latest advances through appearance-related magazines and advertisements or appearance-related TV programs, and indirectly, by transmission of unrealistic beauty standards through other types of TV programs like movies and TV series (Slevec & Tiggemann, 2010; Sharp et al., 2014).

Many experimental studies have demonstrated that being aware of media messages is associated with higher body dissatisfaction levels insofar as just taking a look at a fashion magazine to learn current ideals can influence individual's body image (Kerr, 2010). The results of an interview-based study by Fraser et al. (2017) on the impact of mass media on student's plastic surgery perception, revealed that television, specially popular reality television programs plays an important role in shaping their knowledge and ideas about plastic surgery as the most important sources informing them about

plastic surgery. In another study on the effect of media on cosmetic surgery patients' decision-making process, patients who regularly follow media and especially TV reality shows reported a greater influence from media to undergo cosmetic procedures, and felt more knowledgeable about aesthetic and cosmetic procedures (Crockett et al., 2007).

On the other hand today social media also have become a popular tool for advertising and promoting cosmetic procedures that advertise these procedures either directly by cosmetic professional providers, or indirectly by fashion influencers and their idealized body images (similar to mass media) (Arab et al., 2019). As the number of information seekers and providers in the Internet increase, today the Internet considered as the most important educational sources of information about cosmetic procedures that influence patients' decision to undergo these procedures (Walden et al., 2010). Walden et al. (2010) study on the decision-making process of patients undergoing breast augmentation revealed that more than half of patients began their search for information about the procedure from the Internet while only 10% of patients first consulted with a plastic surgeon.

#### **2.4.3.3 *Internalization of beauty ideals transmitted by media***

Media, family, friends and other social sources exert their effects on body image and cosmetic surgery attitudes through a sociocultural mediator; internalization of the socially-defined beauty ideals (Sharp et al., 2014). Internalization is defined as the extent to which people cognitively buy into socially-defined beauty ideals (which are mostly unattainable for normal people), insofar as they assume these ideals as their own standards, desire to attain those ideals, and engage in behaviors in order to meet those ideals (Sicilia et al., 2019; Schaefer et al., 2015 ). Internalization is a result of social and cultural forces and pressures applied by family, peers and media through comments or actions that serve to support and preserve this ideal like pressure to conform to these ideals, criticism, teasing or encouragement, peer influence, media images and interpersonal modeling (Perloff, 2014). Internalization is a mechanism that explains how sociocultural pressures are translated into psychological risk factors that can promote negative body image and body modification behaviors like willingness to cosmetic surgery (Moradi, 2016).

The internalization of societal appearance ideals is an individual difference variable that addressed the question that why some individuals are influenced by media messages, while others are not affected by the same messages (Thompson & Heinberg, 1999). Although we are all living in appearance-preoccupied cultures that can reinforce our body image problems, but not all of us are concerned and dissatisfied with our appearance (Cash, 1996). Since body image is determined by a series of individual and sociocultural factors so both social the psychological factors together determine why some people develop body image while others do not; the solution cannot be found in the separation of the person and environment of individuals (Sepúlveda & Calado, 2012). Vartanian (2009) addressed this question in this way: only individuals who have internalized societal standards of attractiveness are affected by exposure to media images and get into body image problems. Of course, not all members of the society internalize these standards in the same level (Shahyad et al., 2016). Internalization of societal standards of attractiveness is an important causal risk factor that directly promotes (is positively correlated with) body image dissatisfaction because these ideals are almost unattainable for most females (Thompson & Stice, 2001). Henderson-King & Brooks (2009) demonstrated that women who had internalized societal standards of attractiveness more are more likely to undergo cosmetic surgery to enhance attractiveness.

## **2.5 Hypothesis Development**

According to the above-mentioned literature on media influences on body image and intention to undergo cosmetic procedures, in the present study we we propose the following hypotheses:

**H1: Internalization mediates the relationship between media influence and body image.**

- There is a positive relationship between media influence and internalization.
- There is a positive relationship between internalization and body image.
- There is a positive relationship between media influence and body image

**H2: Body image mediates the relationship between internalization and intention to engage in cosmetic procedures.**

- There is a positive relationship between internalization and body image.

- There is a positive relationship between body image and intention to engage in cosmetic procedures.
- There is a positive relationship between internalization and intention to engage in cosmetic procedures.

**H3: Internalization and body image mediate the relationship between media influence and body image.**

- There is a positive relationship between media influence and intention to engage in cosmetic procedures.

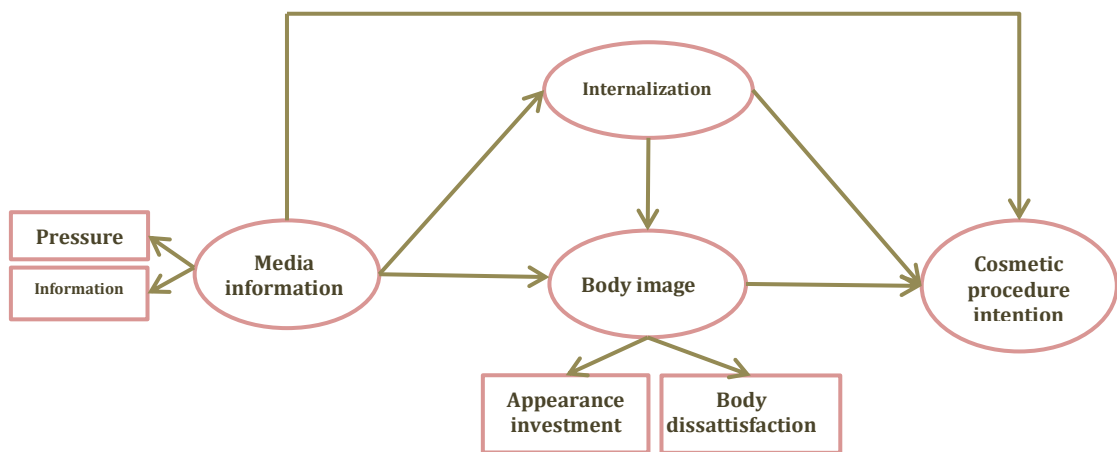
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### 3. METHODOLOGY

This study has applied a quantitative approach using survey techniques to validate the proposed model and test the research hypotheses. The following parts of this chapter explain the research model, participants, measures, procedures and statistical analyses used in this study.

#### 3.1 Proposed Model

Considering all above-mentioned discussions and based on the Tripartite Influence Model (Thompson et al., 1999), we proposed a model (See Figure 3-1) to examine media influence on intention to engage in cosmetic surgical and non-surgical procedures through the mediating role of internalization and body image.



**Figure 3-1.** *Proposed research model*

In this proposed model we have conceptualized media influence as independent variable with two dimensions of pressure and information. The internalization of media's beauty standards and body image mediated the relationships between media influence and intention to engage in cosmetic surgical and non-surgical procedures which is the dependent variable. Body image comprised of two dimensions of body dissatisfaction and appearance investment.

The model and three hypotheses were tested separately for cosmetic surgery intention and intention to undergo cosmetic non-surgical procedures as dependent variables.

### **3.2 Participants**

In order to test our model and hypotheses, data were collected from women in Iran. Due to the above-mentioned gender differences in beauty standards (for example objectification of women is mostly based on youth and thinness while objectification of men is based on muscularity) and different levels of appearance-related pressures towards men and women, it is assumed that the effects of sociocultural influences on body image and body-change strategies may differ between males and females (Sepúlveda & Calado, 2012). Sood et al. (2017) also mentioned that gender has a potential influence on the decision to undergo cosmetic procedures. Along with these differences and also considering that the vast majorities (more than 85%) of those who undergo cosmetic surgery are women (Ip & Ho, 2019; Henderson-King & Brooks, 2009) required data in this study was collected among women.

Convenience sampling technique was preferred to be used in this study instead of random sampling, because of its easy availability and accessibility to participants especially during the COVID-19<sup>19</sup> pandemic and restrictions imposed on people in order to prevent the spread of COVID-19. The researchers' personal contacts were targeted initially and all female contacts were invited to participate. In the next step the survey's link was shared in the women groups in social networking sites. Additionally, only women known to the researcher were asked to forward the link to their female friends, relatives and work colleagues, so some parts of the survey can be considered snowballed in this manner too.

The inclusion criteria for the current sample were being female, aged 18 years and older and having access to internet by phone or computer to complete the online survey. Through the recruitment method described above, a total number of 475 Iranian women completed the survey in a 40-day interval from 01.08.2020 to 09.09.2020.

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<sup>19</sup>Coronavirus disease 2019 known as COVID-19, is a contagious disease caused by severe acute respiratory syndrome coronavirus 2. The first known case was identified in Wuhan, China in December 2019. The disease has since spread worldwide, leading to an ongoing pandemic

### **3.3 Procedures**

The survey was conducted online in order to collect as many responses as possible. The online questionnaire was created by Google Form for collecting and organizing information and was sent to participants via social media (i.e., Whats App, Telegram, Facebook and Instagram) and email as well.

The link of the questionnaire was sent to female participants in form of a message which explained about the research objectives, researchers and the targeted sample as well. The cover page of the survey also provided information about the research including the research topic and objectives, the researchers, privacy and security of collected data, and how they could withdraw from the study if desired.

All the participants took part in the survey voluntarily and were able to leave it whenever they wish. Participants who were interested in filling out our questionnaire were directed to the online survey via a link, where they responded to a series of questions in 11 parts.

The demographics questions were presented as the last part of the survey. Once completed, participants were directed to a thank-you page. It is also good to mention that the questionnaire was pilot tested on a smaller group (not included in the research sample) prior to the main data collection.

### **3.4 Measures**

The questionnaire used in the present study has been developed and tested systematically through a procedure consisting of four following steps:

#### **3.4.1 Questionnaire development**

As a result of a vast literature review, firstly the best scale that fitted our research objectives, hypotheses, target sample and research context, were found for each of the variables in the research model. In the next step, each item was examined and changed if it did not match what we wished to measure under the supervision of experts who are the professors in the marketing field. Consequently, some items were modified to establish a better link with the research objectives and some unrelated questions were removed. Finally appropriate scales were chosen for each item. As a result of this process, the

questionnaire we designed for this study contained 59 items comprised of following 6 main parts:

#### **3.4.1.1 *Body image***

Body image is a multi-dimensional structure that has been measured with more than 50 various measures, that may lead to confusion in selection of a measure that address the right dimensions of body image (Thompson, 2004). A scientific assessment of body image depends on a true measurement of body image dimensions (Cash & Smolak, 2011). In this study we would like to measure both dimensions of body image attitude; “Body dissatisfaction” and “Appearance Investment”. One of the most well know scale suggested for measuring both of these dimensions is Multidimensional Body-Self Relations Questionnaire–Appearance Scales (MBSRQ–AS) consisting of 4 sub-scales including appearance evaluation, appearance orientation, body areas satisfaction and overweight preoccupation. MBSRQ have had good psychometric properties with reported internal consistency coefficients ranging from .70 to .89 and test-retest reliabilities ranging from .74 to .91 in previous studies (Argyrides & Kkeli, 2013b). This scale originally includes 7 items related to appearance evaluation (which measures overall feelings of attractiveness or unattractiveness, and satisfaction or dissatisfaction with one's looks) and 12 items related to appearance orientation (which assesses investment in, and importance of, appearance) in the initial form (Sarwer et al., 2008). The score of each MBSRQ sub-scale is the mean of its constituent items (Argyrides & Kkeli, 2013b).

In the present study body image dissatisfaction is measured by 5 slightly modified items of “appearance evaluation” Sub-scale of MBSRQ–AS that provides an overall self-appraisal of one's appearance by items like “I like my looks just the way they are” or “I am physically unattractive”. Appearance Investment is also measured by 9 slightly modified items of appearance orientation sub-scale of MBSRQ–AS including items like “Before going out in public, I always notice how I look.” or “I check my appearance on the mirror whenever I can”. All the items of this part of questionnaire are answered using a 5-point scale ranging from definitely disagree to definitely agree.

### **3.4.1.2 Media influences**

The most widely used measure for media influence (pressure, information and internalization) is the third revise of Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ-3 by Thompson et al., 2004) that were used in this study as well. This scale was developed by Kevin Thompson to measure the media influence and validated by Thompson et al. (2004). The SATAQ-3 is a 30-item scale assessing the multidimensional effect of media influences on body-image by three dimensions: internalization of the body ideals from media, feeling pressured to look a certain way and perceiving the media as a good source of information of how one should look. (Argyrides & Kkeli, 2013b). The psychometric properties and convergent validity of this questionnaire have been well established and replicated in many studies on women of different cultures (Schaefer et al., 2015). Since this scale is already designed to measure the effect of mass media, we needed some modifications in order to use it also for social media. The SATAQ-3 and all of its sub-scales were validated and largely used in many studies on Iranian women (e.g., Nikoogoftar & Minoosepehr, 2015; Shahyad et al, 2015).

This scale originally contains 3 sub-scales; the 9-item internalization sub-scale examines the degree to which women accept societal standards of appearance individual's, their desires to look like the models and stars on TV and in magazines and movies, and tendency to compare themselves with them. Other two sub-scales are a 7-item pressure sub-scale that assesses perceived pressure from the media to achieve the sociocultural ideal and engage in appearance-enhancing activities and a 9-item information sub-scale assessing the importance of the media as a source of information on attractiveness (Van den Berg et al., 2002).

In this study for measurement of mass media pressure we used 3 slightly modified items of pressure sub-scale of SATAQ-3 including items like "I've felt pressure from TV or magazines to look pretty" or "I've felt pressure from TV or magazines to change my appearance". In order to measure social media pressure, we modified and applied the same 3 questions to social media. Higher scores indicate greater perceived pressures from media and social media towards changing appearance.

In order to measure mass media information, we used 3 slightly modified items of information sub-scale of SATAQ-3 including items like "TV programs and magazine

articles are an important source of information about fashion and being attractive” or “Famous people are an important source of information about fashion and being attractive”. In order to measure social media information, we modified the same 3 questions to social media.

And finally for measurement of internalization effect of mass media we used 3 slightly modified items of internalization sub-scale of SATAQ-3 including items like “I would like my body to look like the people who are on TV or in magazines” or “I compare my appearance to the appearance of people who are on TV or in magazines”. In order to measure internalization effect of social media we modified and applied the same 3 questions to social media. All the items of this part of questionnaire are answered using a 5-point scale ranging from definitely disagree to definitely agree. Higher scores indicate greater internalization of societal ideals transmitted by media and social media.

#### **3.4.1.3 *Intention to engage cosmetic procedures***

Purchase intention or the consumers’ willingness to purchase a product refers to the likelihood of purchasing a product after receiving information about it: the higher the purchase intention, the higher the likelihood of purchase (Yeh, 2015). In order to measure this variable, we adopted “Consider” sub-scale of “Acceptance of Cosmetic Surgery Scale” (ACSS) proposed by Henderson-King & Henderson-King (2005). This sub-scale encompasses 5 items measuring the likelihood of considering cosmetic surgery or intention to undergo cosmetic surgery, in normal conditions or in conditions like no-pain or no-side-effects that could influence such a decision (Wen, 2017). Previous studies mentioned that this sub-scale of the ACSS has shown a stable 3-week test-retest reliability, convergent and discriminant validity, and high internal consistency, with alphas ranging from .84 to .92 (Calogero et al., 2010).

According to Menzel et al. (2011) the Consideration sub-scale measures to what extent people would consider having cosmetic surgery in the future. This sub-scale contains items like “In the future, I could end up having some kind of cosmetic surgery” or “If I could have a surgical procedure done for free, I would consider trying cosmetic surgery” which in this study applied for cosmetic surgical and non-surgical procedures separately. After performing the pilot study, some slight modifications were done on some of these questions like replacing “during the next year” instead of “In the future” to

measure their real intention to undergo cosmetic procedures in a near future. We also added one question to these five items as “If I feel I need cosmetic surgical/non-surgical procedures in the future, I will have it” in order to get informed about participants’ intention to undergo these procedures if needed.

All the items of this part of questionnaire are answered using a 5-point scale ranging from definitely disagree to definitely agree. Higher scores reflect greater intentions to undergo a cosmetic surgical or non-surgical procedure in future.

#### **3.4.1.4 *Past cosmetic procedures***

Participants were asked to clarify if they have ever had any kind of cosmetic surgical or non-surgical procedures (which are classified clearly in the questionnaire) before. They were asked two separate questions like “Have you had any cosmetic surgery in the past” and they were then requested to report the procedures if they do not mind it, by an open question.

#### **3.4.1.5 *Mass media and social media usage***

In this part the participants will answer 3 questions about self-reported media usage and 3 items about social media usage like “How often do you watch TV?” or “How often do you follow social media pages about beauty?”. All the items of this part of questionnaire are answered using a 5-point scale ranging from never to very often. Finally, we ask them to list social media pages about beauty or cosmetic procedures which they follow.

#### **3.4.1.6 *Demographic information***

The last part of questionnaire contains 6 items about demographic information of participants like age, marital state and qualification.

The next step after selecting right questions, was translating them from English to Persian. The translation was done and checked by native Iranians who know the context and objectives of the research. Our goal in the translation process was keeping the meaning and purpose of the items rather than translating it word by word. The translated form of questionnaire was checked by some native Iranians to make sure that the purposes of the questions have not been changed through translation. During this expert review,

some modifications and improvements were made according to provided feedback, comments and impressions, in order to improve the accuracy of the translation and ensure the questions were well designed.

Finally, we selected the question ordering and prepared the Persian form of the questionnaire in a suitable format for the next steps.

### **3.4.2 Pre-test**

After designing the questionnaire, we started pre-testing the questionnaire to make sure that it is working correctly and provide us the data that we hope to receive. In this regard we recruited a convenience sample including 5-10 people from our target group and ask them to complete the questionnaire while thinking out loud and say what first comes into their mind after reading every single item to make sure whether participants have a reasonable understanding of each item in the questionnaire.

The aim was to identify most of the major issues and possible problems of the survey like unclear questions, confusion with the overall meaning of the item, misinterpretation or parts where they hesitate or make mistakes like the reverse items. Then some modifications and improvements have been made according to their feedback and results of the pretest.

### **3.4.3 Establishing validity**

The first step after designing a questionnaire is determining the accuracy and consistency of the questionnaire known as validity and reliability. Validity expresses the degree to which a measurement measures what it purports to measure.

Theoretical construct validity of a questionnaire (including face validity and content validity) can be established by a panel of experts that explore how well a questionnaire can represent the theoretical construct (Bolarinwa, 2015). In the present study, face validity was established by the supervisor professor and a number of experts in marketing who were asked to review the questionnaire and check if the items measure the corresponding variables.

Content validity was also evaluated by professors in social sciences who were familiar with our topic to ensure that the questionnaire contains items which cover all

aspects of the constructs that were supposed being measured in the survey. Also, readability, clarity and comprehensiveness of the items were discussed in this process.

On the other hand, empirical validity of a questionnaire (including criterion-related validity and construct validity) is necessary to be established by a field test to examine how well a questionnaire's items reflect an underlying hypothetical construct or constructs (Bolarinwa, 2015). The construct validity which is the most valuable and difficult measure of validity, validates the contents of the construct through the statistical model called factor analysis. The results of factor analyses (performed on the whole sample) are presented in the next chapter.

#### **3.4.4 Pilot test and establishing reliability**

After examining validity of the questionnaire to decide whether the questionnaire actually measures the intended variables (is it valid?), a pilot study was conducted to identify practical problems in the implementation of the questionnaire and examine if it provides stable and repeatable or consistent responses (is it reliable?) (Bolarinwa, 2015).

In order to carry out a pilot study we collected data from 93 Iranian women (who were not included in the research sample) on a 12-day interval starting at Febuary 2020. Reliability of the questionnaire and its sub-scales was assessed by Cronbach's Alpha ( $\alpha$ ) which is the most common measure of internal consistency reliability especially for a questionnaire designed by Likert scale.

Cronbach's alpha was carried out in SPSS using the data collected in the pilot test. We established Cronbach's alpha for each of the sub-scales separately. Cronbach's alpha value for all constructs was more than 0.70 (see Table 3-1) indicating a high level of internal consistency within this specific sample. Regarding values recorded for "Cronbach's Alpha if Item Deleted" removal of none of the items would lead to a considerable improvement in Cronbach's alpha. Regarding that "Corrected Item-Total Correlation" had a value more than .30 for all the items we did not remove any items from the scales.

**Table 3-1.** Cronbach's alpha values for scales in pilot study (N=93)

<b>Variables</b>		<b>Cronbach's Alpha</b>	
Body image	Appearance investment (1-9)	0.758	0.676

Body image dissatisfaction (10-14)	0.806
Media Pressure (15-20)	0.868
Media Information (21-26)	0.904
Media Internalization (27-32)	0.937
Cosmetic surgery intention (34-38)	0.893
Cosmetic medicine intention (40-44)	0.908

### 3.5 Establishing Reliability for the Main Research Sample

According to the results of the pilot study, we made some changes and modifications in few questions, like transforming some reverse-worded items (related to appearance importance) into positive questions in order to improve reliability of variables. Reverse-worded questions are believed to be troublesome because of the carelessness or misunderstanding.

Few questions were also added to the questionnaire after pilot study, in order to get extra information about participants' job as well as their intention to undergo cosmetic surgical and non-surgical procedures in the future if they need it. The latest form of our questionnaire contains 59 items. The reliability of the questionnaire and its sub-scales was established by Cronbach's Alpha ( $\alpha$ ) for the second time, using the data collected from our whole sample consisting of 469 Iranian females.

Cronbach's Alpha ( $\alpha$ ) is the most common measure of internal consistency reliability especially for a questionnaire designed by Likert scale. Cronbach's alpha for each sub-scale was more than 0.8 (see Table 3-2) indicating excellent internal consistency. Therefore, we can say that all of the scales and sub-scale used in this study can measure a particular construct consistently.

Regarding values recorded for "Cronbach's Alpha if Item Deleted" removal of none of the items would lead to a considerable improvement in Cronbach's alpha. Considering that "Corrected Item-Total Correlation" had a value more than .30 for all the items (mostly more than 0.7) we would not want to remove any questions from the questionnaires in this step.

**Table 3-2.** *Cronbach's alpha values for scales on research sample*

<b>Variables</b>		<b>Cronbach's Alpha</b>	
Body image	Appearance investment (1-9)	0.848	0.820
	Body image dissatisfaction (10-14)	0.803	
Media Pressure (15-20)		0.947	
Media Information (21-26)		0.912	
Media Internalization (27-32)		0.951	
Cosmetic surgery intention (34-39)		0.921	
Cosmetic medicine intention (41-46)		0.943	

### **3.6 Statistical Analysis**

Although all of the scales used in this study were drawn generally from prior studies, the structure of the instruments were examined again, using exploratory factor analysis (EFA) in SPSS and confirmatory factor analysis (CFA) in AMOS (Brown, 2015), and the internal consistencies of the questionnaire were assessed with Cronbach's alpha in SPSS.

Since we intended to determine relationships among variables, correlation test and structural equation modeling (SEM) were used to validate the proposed model and hypotheses. The indirect paths (mediation effects) in the model, were tested by bootstrapping method in Amos.

## 4. RESULTS

In this chapter, the results of data analysis are reported through 3 main sections after data preparation: the first part includes the results of descriptive statistics, the second part includes the evaluation of measurement models and the third part includes the results of validating the proposed model using structural equation modeling. All the analyses were performed using SPSS Statistics 25 and AMOS software packages.

### 4.1 Data Preparation

In order to determine our final data set, several steps were taken on the raw data as data preparation process prior to the analyses. The data were screened for missing values, wrong data entries, and normality outliers.

First of all, we examined the sample in order to exclude participants who did not meet the recruitment criteria. In this case we had 6 participants younger than 18 years old that were eliminated from our data set. So, the data from 469 cases were included in the analyses.

Since all of the online survey questions were required to be answered (except 3 optional items designed to get extra information about the type of cosmetic surgical and non-surgical procedures that participants had before, and their job), there were no minimal or partial responses in our data set. Therefore, we did not have any missing data.

The accuracy of data entry was checked through examining maximum and minimum scores for each item. Maximum and minimum values for all of the items were within the correct range.

In the next step data set were screened in order to remove outliers that can influence the outcome of statistical analyses. Outliers are unusual observation that lies an abnormal distance from the mass of data in a data set. Univariate outliers have extreme scores on only one variable and multivariate outliers have unusual values on at least two variables.

To find potential uni-variate outliers of each variable we standardized all items using SPSS. With a cut off value of  $\pm 3.29$  no uni-variate outlier was identified in our

data set. Multivariate outliers and normality of data distribution will be assessed before structural equation modeling as well.

## **4.2 Sample Characteristics**

In this section respondents' demographic characteristics as well as media usage and their cosmetic procedures in the past are descriptively analyzed and the frequency and percentage criteria were calculated and determined.

### **4.2.1 Demographic information**

Table 4-1 provides demographic characteristics of our sample such as age, marital status, educational level, income, and employment status. Our final sample consisted of 469 women, including women aged 18-24 years old (17.1%), 25-34 (36.2%), 35-44 (33.5%), 45-54 (10.0%) and 55 or older (3.2%).

The sample included women who were single (29.2%), in a partnership (9.0%), married (56.7%), widowed (1.7%) and divorced (3.4%). Only 0.9% of participants were educated to Primary/middle school, 14.3% had completed high school, 51.4% had Associate or Bachelor's degree and finally 33.5% of them had Master's or Doctorate degree.

The household income of 8.1% of sample were under 20 million IRR (about 100 \$), 22.4% were 20-39 million IRR (about 100-199 \$), 23.9% were 40-59 million IRR (about 200-299 \$), 15.4% were 60-79 million IRR (about 300-399 \$), 11.3% were 80-99 million IRR (about 400-499 \$) and finally the household income of 19.0% of sample were more than 100 million IRR (about 500 \$).

29.2% of participants reported their employment status as unemployed or homemaker. Only 1.5% had been retired, 21.7% were student, 14.1% had a job in the public sector, 16.8% had a job in the private sector, 10.7% of sample was self-employed and finally, 6.0% reported their employment status as "other".

**Table 4-1. Sample descriptions**

<b>Demographics</b>		<b>Frequency</b>	<b>Percentage</b>	<b>Cumulative Percent</b>
<b>Age</b>	18-24	80	17.1%	17.1
	25-34	170	36.2%	53.3
	35-44	157	33.5%	86.8
	45-54	47	10.0%	96.8
	55 and above	15	3.2%	100.0
	<b>Total</b>	<b>469</b>	<b>100%</b>	
<b>Marital status</b>	Single	137	29.2%	29.2
	Partnership	42	9.0%	38.2
	Married	266	56.7%	94.9
	Widowed	8	1.7%	96.6
	Divorced	16	3.4%	100.0
	<b>Total</b>	<b>469</b>	<b>100%</b>	
<b>Education</b>	Primary/middle school	4	0.9%	.9
	High school diploma	67	14.3%	15.1
	Associate/Bachelor's	241	51.4%	66.5
	Master's/Doctorate	157	33.5%	100.0
	<b>Total</b>	<b>469</b>	<b>100%</b>	
<b>Household Income</b>	<20 million IRR	38	8.1%	8.1
	20-40 million IRR	105	22.4%	30.5
	40-60 million IRR	112	23.9%	54.4
	60-80 million IRR	72	15.4%	69.7
	80-100 million IRR	53	11.3%	81.0
	>100 million IRR	89	19.0%	100.0
	<b>Total</b>	<b>469</b>	<b>100%</b>	
<b>Employment Status</b>	Unemployed/homemaker	137	29.2%	29.2
	Retired	7	1.5%	30.7
	Student	102	21.7%	52.5
	Public sector	66	14.1%	66.5
	Private sector	79	16.8%	83.4
	Self-employment	50	10.7%	94.0
	Other	28	6.0%	100.0
	<b>Total</b>	<b>469</b>	<b>100%</b>	

Furthermore, participants were asked to report their job through an optional item in the questionnaire. Among 149 participant who had reported their jobs, there were 38 teachers, lecturers or academics, 28 employee in the public sector and 27 employee in the private sector, 15 artist such as potters, musicians and clothing designers, 11 self-employed engineers including architects, IT and computer engineers, 8 psychologists, 8 shopkeepers or online retailers, 5 healthcare professionals and practitioners such as physicians, nurses, dentists and assistants, 5 hair and beauty salon assistants and finally 4 laser and beauty centre assistants.

#### 4.2.2 Media usage

Participants were also asked to answer 3 items about media usage and 3 items about social media usage using a 5-point scale ranging from never to very often. The results are reported in Table 4-2.

**Table 4-2.** Media usage frequency on research sample

		Frequency	Percentage	Cumulative Percent
<b>TV usage</b>	Never	97	20.7	20.7
	Rarely	118	25.2	45.8
	Occasionally	178	38.0	83.8
	Frequently	53	11.3	95.1
	Very Frequently	23	4.9	100.0
	<b>Total</b>	<b>469</b>	<b>100%</b>	
<b>Print media usage</b>	Never	130	27.7	27.7
	Rarely	145	30.9	58.6
	Occasionally	146	31.1	89.8
	Frequently	35	7.5	97.2
	Very Frequently	13	2.8	100.0
	<b>Total</b>	<b>469</b>	<b>100%</b>	
<b>Social media usage</b>	Never	18	3.8	3.8
	Rarely	60	12.8	16.6
	Occasionally	177	37.7	54.4
	Frequently	145	30.9	85.3
	Very Frequently	69	14.7	100.0
	<b>Total</b>	<b>469</b>	<b>100%</b>	
<b>Beauty related content on TV</b>	Never	134	28.6	28.6
	Rarely	165	35.2	63.8
	Occasionally	104	22.2	85.9
	Frequently	48	10.2	96.2

	Very Frequently	18	3.8	100.0
	<b>Total</b>	<b>469</b>	<b>100%</b>	
<b>Beauty related content on print media</b>	Never	172	36.7	36.7
	Rarely	143	30.5	67.2
	Occasionally	109	23.2	90.4
	Frequently	28	6.0	96.4
	Very Frequently	17	3.6	100.0
	<b>Total</b>	<b>469</b>	<b>100%</b>	
<b>Beauty related content on social media</b>	Never	119	25.4	25.4
	Rarely	121	25.8	51.2
	Occasionally	129	27.5	78.7
	Frequently	63	13.4	92.1
	Very Frequently	37	7.9	100.0
	<b>Total</b>	<b>469</b>	<b>100%</b>	

#### 4.2.3 Previous cosmetic procedure experiences

We asked participants whether they had any kind of cosmetic surgical or non-surgical procedures before. As seen in Table 4-3, 122 (26%) of the participants had cosmetic surgical procedures before, and 132 (28.1%) of the participants had cosmetic non-surgical procedures before.

**Table 4-3.** *The frequency of previous cosmetic procedures*

		<b>Frequency</b>	<b>Percent</b>
<b>Having cosmetic surgery before</b>	No	347	74.0
	Yes	122	26.0
	<b>Total</b>	<b>469</b>	<b>100.0</b>
<b>having non-surgical cosmetic procedure before</b>	No	337	71.9
	Yes	132	28.1
	<b>Total</b>	<b>469</b>	<b>100.0</b>

They were also requested to specify optionally the type of cosmetic surgical or non-surgical procedures they had. Out of 122 women who had cosmetic surgery before, 117 of them reported the type of surgical procedures they had in the past. Also, among 132 women who had cosmetic non-surgical procedures in the past, 110 of them reported the type of procedures they had. It is worth mentioning that some of the participants had

more than one cosmetic procedure. The frequency of past cosmetic procedures is reported in Table 4-4.

Among reported surgical procedures, rhinoplasty ranked first; it is reported by 79 women in the sample and constituted more than 57% of the reported cosmetic surgeries. Among non-surgical procedures, Botox injection is the most frequently reported procedure (n=66) which creates more than 46 % of the reported cosmetic non-surgical procedures.

**Table 4-4.** *The frequency and type of previous cosmetic procedures*

<b>Procedures</b>	<b>Frequency</b>	<b>Percent</b>	
<b>Cosmetic surgical procedures</b>	Rhinoplasty	79	57.66 %
	Fat grafting and face lift	26	18.97 %
	Abdominoplasty	12	8.75 %
	Blepharoplasty	8	5.83 %
	Breast surgery	8	5.83 %
	Facial bone contouring	2	1.48 %
	Hair transplantation	2	1.48 %
	<b>Total</b>	<b>137</b>	<b>100 %</b>
<b>Cosmetic non-surgical procedures</b>	Botox injection	66	46.47 %
	Rejuvenation	25	17.60 %
	Injectable implants (lip, cheek etc.)	21	14.78 %
	Filler injection for wrinkles	20	14.09 %
	Laser hair removal	6	4.23 %
	Microdermabrasion	4	2.83 %
	<b>Total</b>	<b>142</b>	<b>100 %</b>

### 4.3 Measurement Model Evaluation

While previous studies has confirmed the technical aspects (like reliability and validity) of the scales used in this study, but due to the modification of some items and adding few new items, and considering the fact that validity may change in translation process, a series of exploratory and confirmatory factor analyses was performed in this study prior to conduct other analyses in order to determine the factor structure of our data set.

We performed exploratory and confirmatory factor analyses to assess measurement model and construct validity of scale. To this end firstly an exploratory factor analysis was conducted in SPSS to examine whether related items hang together to create the related construct.

Then confirmatory factor analysis was performed on the measurement model in order to determine the factor structure of our data set. Confirmatory factor analyses was conducted in AMOS to examine whether observed variables in our scales, can be reduced into their relevant latent factors.

#### 4.3.1 Exploratory factor analysis on measurement scale

Before starting exploratory factor analysis, KMO (Kaiser-Meyer-Olkin) and Bartlett's tests were performed in order to evaluate the suitability of our data and sampling adequacy for factor analysis. According to the results shown in Table 4-5, Bartlett's test of sphericity was significant ( $\chi^2=17582.702$ ,  $df =946$ ,  $p < .001$ ) for this questionnaire. KMO value was 0.946 suggesting that the responses given with our sample are adequate for a satisfactory factor analysis. A value of 0.6 is a suggested minimum for KMO.

**Table 4-5. KMO and Bartlett's Test for body image scale**

<b>KMO and Bartlett's Test</b>		
<b>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</b>		.915
<b>Bartlett's Test of Sphericity</b>	Approx. Chi-Square	17582.702
	Df	946
	Sig.	.000

Exploratory factor analysis was performed using a Principal Component Method and Promax Rotation Method. Extraction values (or communalities) are deciding factors to include or exclude an item which show the extent to which an item correlates with all other items; so higher communalities are considered better and low values (between 0.0-0.4) are candidates for item removal. As seen in Table 4-8 , most of the extraction values are more than 0.4 which is acceptable but we preferred to remove some items with low Extraction value in order to get better results. So item 1, 2 and 11 were removed step by step, according to the results of extraction values in each step. The final Extraction values for each item after this process are reported in Table 4-8.

**Table 4-6. Initial Extraction values for each item**

<b>Communalities</b>		
<b>Items</b>	<b>Initial</b>	<b>Extraction</b>
1. Notice how I look before going out	1.000	.470
2. Check appearance on mirror	1.000	.426
3. Spend time getting ready	1.000	.549
4. Its important to look good	1.000	.575
5. Using grooming products	1.000	.481
6. Be self-conscious for grooming	1.000	.509
7. Care about what people think	1.000	.462
8. Think about appearance	1.000	.623
9. Try to improve appearance	1.000	.460
10. Like my looks (R)	1.000	.551
11. Be considered good-looking (R)	1.000	.512
12. Dislike my physique	1.000	.614
13. Feel physically unattractive	1.000	.656
14. Unsatisfied by some body parts	1.000	.604
15. Media pressure to look pretty	1.000	.772
16. Media pressure to look perfect	1.000	.810
17. Media pressure to improve appearance	1.000	.777
18. SM pressure to look pretty	1.000	.857
19. SM pressure to look perfect	1.000	.846
20. SM pressure to improve appearance	1.000	.816
21. Media as an information source	1.000	.673
22. Media Ads as information source	1.000	.755
23. Media actors as information source	1.000	.763
24. SM as an information source	1.000	.748
25. SM slebs as an information source	1.000	.700
26. SM Ads as an information source	1.000	.779
27. Want to look like people in Media	1.000	.805
28. Want to look like slebs in SM	1.000	.840
29. Try to look like people in Media	1.000	.817
30. Try to look like slebs in SM	1.000	.853
31. Compare appearance to people in Media	1.000	.790
32. Compare appearance to people on SM	1.000	.777
34. Intention to have CS this year	1.000	.781
35. Intention to have CS if free	1.000	.819
36. Intention to have CS if no side effect	1.000	.773
37. Think about CS	1.000	.712
38. Would never have CS (R)	1.000	.625

39. Would have CS in future if needed	1.000	.639
41. Intention to have CNS this year	1.000	.823
42. Intention to have CNS if free	1.000	.802
43. Intention to have CNS if no side effect	1.000	.851
44. Think about CNS	1.000	.847
45. Would never have CS (R)	1.000	.630
46. Would have CNS in future if needed	1.000	.758

\*Extraction Method: Principal Component Analysis

\*Rotation: Promax

As seen in Table 4-8, the eigenvalues and scree plot suggested a seven-factor solution (with eigenvalues more than 1) which could define 72.346 % of the variance together.

**Table 4-7. Total Variance Explained**

Item	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings <sup>a</sup>
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	13.801	33.661	33.661	13.801	33.661	33.661	8.826
2	4.445	10.842	44.503	4.445	10.842	44.503	7.015
3	3.342	8.150	52.653	3.342	8.150	52.653	10.140
4	2.759	6.728	59.381	2.759	6.728	59.381	6.700
5	2.440	5.952	65.333	2.440	5.952	65.333	9.316
6	1.517	3.700	69.033	1.517	3.700	69.033	6.113
7	1.359	3.314	72.346	1.359	3.314	72.346	5.254
8	.867	2.115	74.462				
9	.827	2.017	76.479				
10	.763	1.861	78.339				
11	.712	1.737	80.077				
12	.665	1.621	81.698				
13	.595	1.452	83.150				
14	.550	1.341	84.490				
15	.499	1.218	85.708				
16	.468	1.141	86.849				
17	.430	1.049	87.898				
18	.413	1.007	88.905				
19	.365	.891	89.796				
20	.354	.864	90.660				
21	.335	.816	91.476				
22	.325	.793	92.269				
23	.281	.686	92.955				

24	.278	.678	93.633		
25	.267	.652	94.285		
26	.230	.560	94.845		
27	.225	.548	95.393		
28	.220	.537	95.931		
29	.209	.510	96.441		
30	.191	.466	96.907		
31	.187	.456	97.363		
32	.165	.403	97.766		
33	.163	.397	98.163		
34	.143	.349	98.512		
35	.115	.280	98.792		
36	.107	.261	99.053		
37	.094	.229	99.282		
38	.086	.210	99.492		
39	.078	.191	99.682		
40	.070	.170	99.853		
41	.060	.147	100.000		

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

According to the Rotated Component Matrix (see Table 4-8) in this sample, 41 items are structured as 7 distinctive factors with high factor loadings and no cross-loadings; appearance investment (item 3 to 9), body image dissatisfaction (item 10, 12, 13, 14), media pressure (item 15 to 20), media information (item 21 to 26 items), internalization (item 27 to 32) cosmetic surgery intention (item 34 to 39) and intention to undergo cosmetic non-surgical procedures (item 41 to 46).

Considering the results EFA for the media influence scale, we realized that all three aspects of media influence (i.e. pressure, information and internalization) were not determined as separate factors for mass media and social media. In other words, because of the high correlation between mass media pressure and social media pressure, they have been determined as one factor of media pressure (not two separate factors). The same has happened for media information and internalization of media ideals. Tiggemann and Miller (2010) also found a high correlation among different kind of media such as magazines, television and Internet. They noted that this can imply the Jones et al. (2004) notion of “a media-led appearance culture,” suggesting that appearance messages are

transmitted and received from different forms of media simultaneously. So maybe it is not possible to isolate the influence of media from social media because people are exposed to both of them concurrently.

**Table 4-8.** *Extraction values and Rotated Component Matrix for body image items*

Item	Extraction	Component						
		1	2	3	4	5	6	7
q03	.564						.674	
q04	.540						.800	
q05	.509						.580	
q06	.558						.808	
q07	.492						.586	
q08	.668						.727	
q09	.486						.637	
q10	.476							.663
q12R	.695							.828
q13R	.719							.859
q14R	.661							.743
q15	.773		.873					
q16	.811		.902					
q17	.778		.889					
q18	.858		.912					
q19	.846		.900					
q20	.815		.876					
q21	.677				.809			
q22	.761				.872			
q23	.764				.881			
q24	.748				.828			
q25	.699				.782			
q26	.780				.847			
q27	.810			.849				
q28	.846			.897				
q29	.820			.888				
q30	.851			.919				
q31	.799			.866				
q32	.783			.871				
q34	.781					.874		
q35	.821					.914		
q36	.775					.817		
q37	.712					.654		

q38R	.626	.632
q39	.640	.634
q41	.825	.764
q42	.804	.780
q43	.853	.844
q44	.848	.912
q45R	.633	.848
q46	.758	.880

Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

### 4.3.2 Confirmatory factor analysis on measurement scale

In the next step, confirmatory factor analysis was performed on the measurement scale. 35 items are reflected in the measurement model with 6 latent factors (see Figure 4-1); appearance investment (7 items), body image dissatisfaction (4 items), media pressure (6 items), media information (6 items), media internalization (6 items), and cosmetic surgery intention (6 items). Cosmetic non-surgical procedures intention (6 items) was evaluated through a separate model (see Figure 4-2) in order to avoid high correlations between cosmetic surgery intention and cosmetic non-surgical procedure intention items.

Model fit measures that show the goodness of fit for both models are reported in Table 4-9. Model fits with  $(\chi^2/df)^{20}$  ranges from 2.0 to 5.0, Goodness of Fit Index (GFI) more than 0.9, Adjusted Goodness of Fit Index (AGFI) more than 0.9, Comparative Fit Index (CFI) more than 0.90, Normed Fit Index (NFI) more than 0.90 and Root Mean Square Error of Approximation (RMSEA) less than 0.07 indicate a good model- data fit (Hooper et al., 2008). As seen in Table 4-9, all model fit indices are satisfactory suggesting that the measurement model, fits the observed or estimated model. Likewise according to the results reported in Table 4-10, the standardized factor loadings for each item exceed 0.5 (statistically significant with  $p < 0.001$ ) and t-values are greater than 10 which are excellent.

<sup>20</sup>The proportion of Chi square to degree of freedom

**Table 4-9.** *Model fit indices for measurement models*

Fit Indices	$\chi^2$	Df	$\chi^2/df$	GFI	AGFI	NFI	IFI	TLI	CFI	RMSEA
CSI	1520.601	540	2.783	.935	.908	.890	.926	.918	.926	.063
CNSI	1557.215	540	2.884	.933	.905	.893	.927	.920	.917	.064

**Table 4-10.** *Standardized Regression Weights and t-values for measurement model*

Indicator Variables		Latent Variables	Standardized Factor Loading	t-value	P
q03	<-	Appearance investment	0.655	11.733	***
	--				
q04	<-	Appearance investment	0.549	10.142	***
	--				
q05	<-	Appearance investment	0.650	11.672	***
	--				
q06	<-	Appearance investment	0.554	10.220	***
	--				
q07	<-	Appearance investment	0.637	11.475	***
	--				
q08	<-	Appearance investment	0.801	13.588	***
	--				
q09	<-	Appearance investment	0.644	----	
	--				
q10 R	<-	Body dissatisfaction	0.539	10.656	***
	--				
q12	<-	Body dissatisfaction	0.779	15.087	***
	--				
q13	<-	Body dissatisfaction	0.791	15.255	***
	--				
q14	<-	Body dissatisfaction	0.743	----	
	--				
q15	<-	Media pressure	0.757	21.898	***
	--				
q16	<-	Media pressure	0.784	23.433	***
	--				

<b>q17</b>	<-	Media pressure	0.786	23.570	***
	--				
<b>q18</b>	<-	Media pressure	0.960	40.198	***
	--				
<b>q19</b>	<-	Media pressure	0.946	38.170	***
	--				
<b>q20</b>	<-	Media pressure	0.921	----	
	--				
<b>q21</b>	<-	Media information	0.627	15.304	***
	--				
<b>q22</b>	<-	Media information	0.714	18.494	***
	--				
<b>q23</b>	<-	Media information	0.755	20.252	***
	--				
<b>q24</b>	<-	Media information	0.867	26.114	***
	--				
<b>q25</b>	<-	Media information	0.858	25.563	***
	--				
<b>q26</b>	<-	Media information	0.898	----	
	--				
<b>q27</b>	<-	Internalization	0.883	23.108	***
	--				
<b>q28</b>	<-	Internalization	0.918	24.569	***
	--				
<b>q29</b>	<-	Internalization	0.902	23.873	***
	--				
<b>q30</b>	<-	Internalization	0.918	24.570	***
	--				
<b>q31</b>	<-	Internalization	0.825	34.315	***
	--				
<b>q32</b>	<-	Internalization	0.807	----	
	--				
<b>q34</b>	<-	Cosmetic surgery intention	0.812	18.189	***
	--				
<b>q35</b>	<-	Cosmetic surgery intention	0.844	19.068	***
	--				
<b>q36</b>	<-	Cosmetic surgery intention	0.862	19.592	***
	--				

<b>q37</b>	<-	Cosmetic surgery intention	0.830	18.773	***
	--				
<b>q38</b>	<-	Cosmetic surgery intention	0.750	16.666	***
	--				
<b>q39</b>	<-	Cosmetic surgery intention	0.764	----	
	--				
<b>q41</b>	<-	Non-surgical procedure intention	0.914	23.589	***
	--				
<b>q42</b>	<-	Non-surgical procedure intention	0.916	23.698	***
	--				
<b>q43</b>	<-	Non-surgical procedure intention	0.947	24.980	***
	--				
<b>q44</b>	<-	Non-surgical procedure intention	0.893	22.904	***
	--				
<b>q45</b>	<-	Non-surgical procedure intention	0.681	15.922	***
	--				
<b>q46</b>	<-	Non-surgical procedure intention	0.794	----	
	--				

\*\*\*. Significant at the 0.001 level

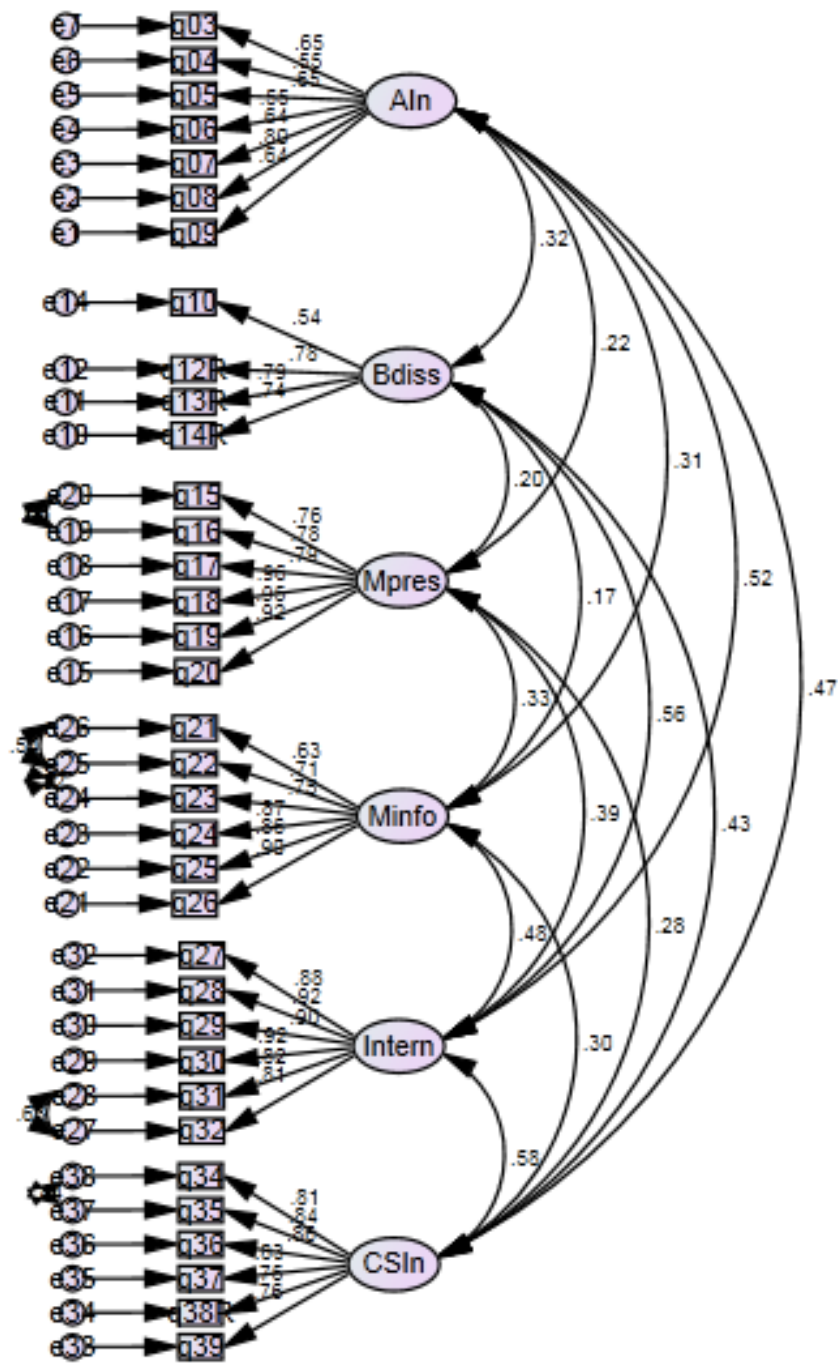


Figure 4-1. The standardized output of CFA for measurement model (CSI)

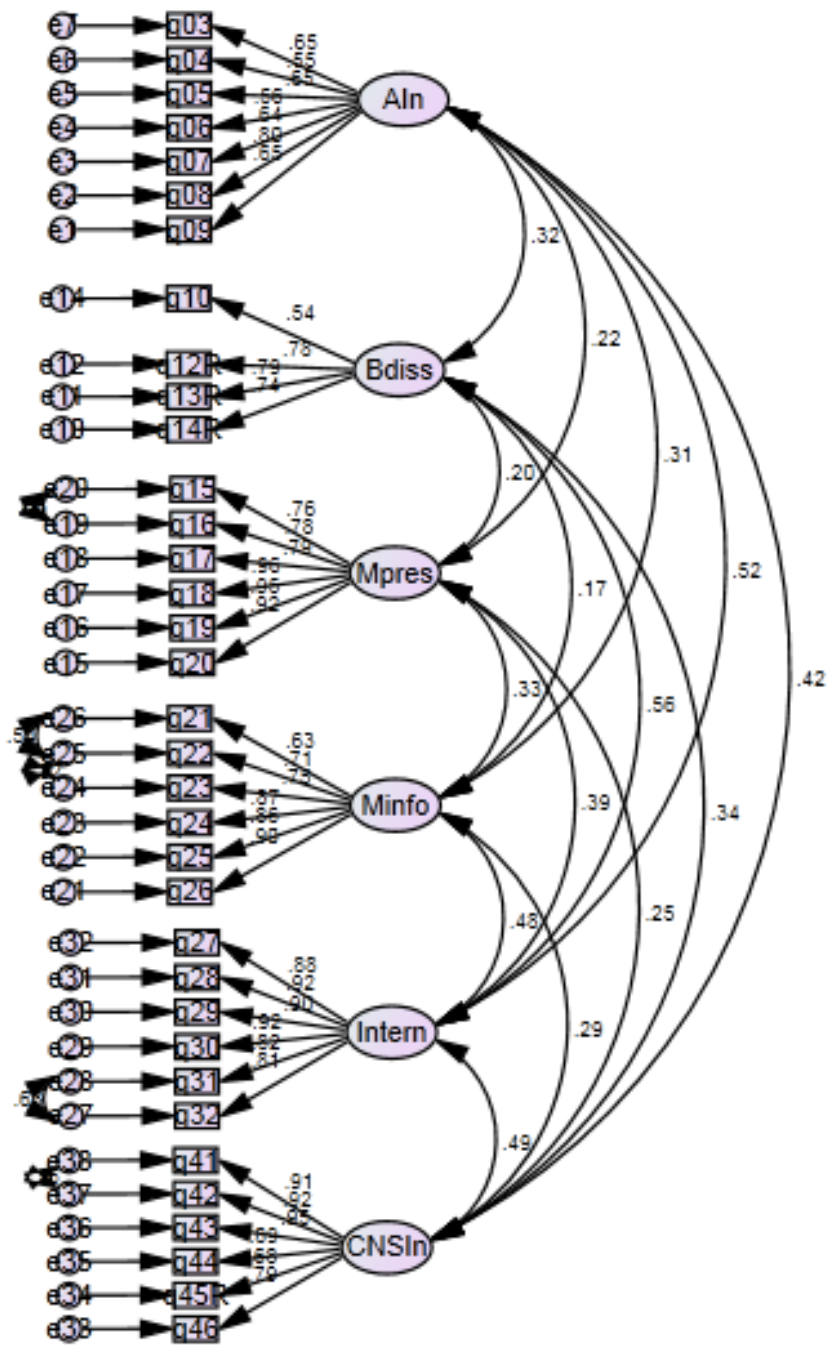


Figure 4-2. The standardized output of CFA for measurment model (CNSI)

### 4.3.3 Evaluating validity and reliability of the scale

In this section we intend to evaluate the reliability and validity of the measurement scale used in this study. As reported in chapter 3, the internal consistency of each subscales were evaluated through Cronbach Alpha separately. As seen in Table 4-11, the internal consistency of all constructs are more than 0.8 which is greater than the recommended range of Cronbach's Alpha values which is 0.70 (Hair et al. 2010).

In the next step, we intend to evaluate the convergent validity and discriminant validity of the scale which both are required for establishing construct validity of a scale. To this end, the results of the CFA on the six-factor model (reported in the previous section) were examined. In order to evaluate the convergent validity of the measurement scale, all factor loadings (FL) and average variance extracted (AVE) values must be checked to be greater than 0.5 and the composite reliability (CR) should be greater than 0.7 (Hair et al. 2010). As seen in Table 4-11, factor loadings are greater than 0.539 and composite reliability values are greater than 0.809. AVE values for all constructs are greater than 0.5 except AVE value for appearance investment construct (AVE=0.418) which is less than 0.5 but not alarmingly. As seen in previous parts of this study, the results of CFA on measurement model revealed that all of the factor loadings were statistically significant, with high critical t-values ( $p < 0.05$ ), and high standardized factor loadings which strongly support convergent validity of the measurement scale.

**Table 4-11.** Cronbach's Alpha, Composite Reliability, AVE and Factor Loadings to test convergent validity

Constructs and related items	Cronbach's Alpha	Factor Loading	CR	AVE
<b>Appearance Investment</b>	0.848		0.832	0.418
3. Spend time getting ready		0.655		
4. It's important to look good		0.549		
5. Using grooming products		0.650		
6. Be self-conscious for grooming		0.554		
7. Care about what people think		0.637		
8. Think about appearance		0.801		
9. Try to improve appearance		0.644		
<b>Body Dissatisfaction</b>	0.803		0.809	0.519
10. Like my looks (R)		0.539		
12. Dislike my physique		0.779		
13. Feel physically unattractive		0.791		
14. Unsatisfied by some body parts		0.743		

<b>Media Pressure</b>	0.947		0.946	0.745
15. Media pressure to look pretty		0.757		
16. Media pressure to look perfect		0.784		
17. Media pressure to improve appearance		0.786		
18. SM pressure to look pretty		0.960		
19. SM pressure to look perfect		0.946		
20. SM pressure to improve appearance		0.921		
<b>Media Information</b>	0.912		0.909	0.628
21. Media as an information source		0.627		
22. Media Ads as information source		0.714		
23. Media actors as information source		0.755		
24. SM as an information source		0.867		
25. SM slebs as an information source		0.858		
26. SM Ads as an information source		0.898		
<b>Internalization</b>	0.951		0.948	0.769
27. Want to look like people in Media		0.883		
28. Want to look like slebs in SM		0.918		
29. Try to look like people in Media		0.902		
30. Try to look like slebs in SM		0.918		
31. Compare appearance to people in Media		0.825		
32. Compare appearance to people on SM		0.807		
<b>Cosmetic Surgery Intention</b>	0.921		0.920	0.659
34. Intention to have CS this year		0.812		
35. Intention to have CS if free		0.844		
36. Intention to have CS if no side effect		0.862		
37. Think about CS		0.830		
38. Would never have CS (R)		0.750		
39. Would have CS in future if needed		0.764		
<b>Cosmetic non-surgical procedure Intention</b>	0.943		0.945	0.744
41. Intention to have CNS this year		0.914		
42. Intention to have CNS if free		0.916		
43. Intention to have CNS if no side effect		0.947		
44. Think about CNS		0.893		
45. Would never have CS (R)		0.681		
46. Would have CNS in future if needed		0.794		

To verify the discriminant validity, if the square root of AVE value of each variable is greater than the correlation coefficients between that variable and other

variables in the measurement model, the discriminant validity criterion will be satisfied. As evident in Table 4-12, the findings ensured the discriminant validity of the scale.

**Table 4-12.** *Squareroot of AVE and inter-construct correlations to verify discriminant validity*

<b>Construct</b>	<b>AVE</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Appearance Investment	<b>0.418</b>	<b>0.646<sup>a</sup></b>						
Body Dissatisfaction	<b>0.519</b>	.193**	<b>0.720<sup>a</sup></b>					
Media Pressure	<b>0.745</b>	.189**	.203**	<b>0.863<sup>a</sup></b>				
Media Information	<b>0.628</b>	.280**	.165**	.325**	<b>0.792<sup>a</sup></b>			
Internalization	<b>0.769</b>	.434**	.473**	.393**	.448**	<b>0.891<sup>a</sup></b>		
Cosmetic Surgery Intention	<b>0.659</b>	.381**	.365**	.289**	.282**	.547**	<b>0.811<sup>a</sup></b>	
Cosmetic Non-surgical procedure Intention	<b>0.744</b>	.340**	.275**	.260**	.239**	.452**	.703**	<b>0.862<sup>a</sup></b>

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\*. Correlation is significant at the 0.05 level (2-tailed).

a. Square root of AVE values

#### **4.4 Basic Assumptions Underlying Structural Equation Modeling**

Like other statistical tests, there are specific underlying assumptions that required being satisfied prior to performing a structural equation modeling, in order to ensure accurate results. The main assumptions underlying structural equation modeling are multivariate normality, no systematic missing data and no outliers. We also examined multi-collinearity and linear correlation among study variables before structural equation modeling. The data set were examined for missing values and there were no minimal or partial responses in our data set. Therefore, we did not have any missing data. In the following parts, the normality of the data set, multivariate outliers and correlation between study variables are examined.

##### **4.4.1 Multivariate outliers**

Outliers are unusual observation that lies an abnormal distance from the mass of data in a data set. Uni-variate outliers have extreme scores on only one variable and multivariate outliers have unusual values on at least two variables. In this study, Mahalanobis distance was calculated in AMOS in order to identify multivariate outliers.

As a result, 6 cases were identified and removed from the data set as multivariate outliers. Therefore, our final data set includes 463 data.

#### **4.4.2 Assessment of normality**

Since a normal data distribution is an underlying assumption for many statistical tests such as factor analysis and structural equation modeling, in this step we examined the normality of data distribution. It is assumed that the observations are drawn from a continuous and multivariate normal population, however the normality of a data set rarely happens in a real data set, so estimation techniques like the skewness and kurtosis of data are used (Kumar, 2015).

Since the Kolmogorov-Smirnov and Shapiro-Wilk test are too sensitive to sample size and often reject the null-hypothesis of equal distributions for large samples, numerical methods like skewness and kurtosis are suggested for large samples to explore whether a data set is distributed normally (Razali & Yap, 2011).

In this study the skewness and kurtosis tests were conducted to examine normality for all study variables. Skewness measures the symmetry of data distribution around the mean, while kurtosis measures the peakedness or flatness of data distribution (Kim, 2013). The skewness and excess kurtosis (obtained by subtracting 3 from the kurtosis) of a normal distribution is zero; values near to zero for skewness and kurtosis indicates that data distribution is close to normal (Kim, 2013).

Although acceptable range for skewness and excess kurtosis is between -2 and 2, in this study skewness and kurtosis values (reported in Table 4-13) for all variables were within interval of  $\pm 1$  which are considered very good. So, data distribution can be considered normal.

Additionally, according to the central limit theorem (CLT), regardless of whether the population is normal or skewed, the distribution of sample means approaches a normal distribution as the sample size gets larger (Islam, 2018). So, a sufficiently large sample size (usually  $n > 30$ ) can predict the characteristics of a population accurately and is considered normally distributed. Sample sizes equal to or greater than 30 are considered

sufficient for statistics that rely on the assumption of normality (Islam, 2018). Therefore, our data distribution is considered normal.

**Table 4-13.** *Skewness and Kurtosis values for each Scale (n=463)*

<b>Variable</b>	<b>Skewness</b>	<b>Kurtosis</b>
Appearance investment	-.330	-.143
Body dissatisfaction	.046	-.579
Media pressure	-.558	-.429
Media information	-.338	-.463
Internalization	.268	-.651
Intention to have cosmetic surgery	.035	-.886
Intention to have cosmetic non-surgical procedure	-.156	-.941

#### 4.4.3 Test for multi-collinearity

A multi-collinearity test was conducted before SEM. The absence of collinearity and multi-collinearity of a data set is a basic assumption for many statistical tests like SEM. Collinearity refers to the correlation between two independent variables while multi-collinearity happens when more than two independent variables are correlated (Tarka, 2018).

Multi-collinearity can be detected based on the tolerance value and its reciprocal, called variance inflation factor (VIF). It means that if the tolerance value is less than 0.1 and, the VIF value is 10 and above, then the multi-collinearity is problematic (Hair et al., 1995). According to the results of the test presented in Table 4-14, all Tolerance values for both models are more than 0.1 and VIF values are less than 10, showing that there is no multi-collinearity problem in the data set.

**Table 4-14.** *Collinearity test for study variables*

<b>Independent variables</b>	<b>Collinearity Statistics (CSI)</b>		<b>Collinearity Statistics (CNSI)</b>	
	Tolerance	VIF	Tolerance	VIF
Appearance investment	.793	1.262	.793	1.262
Body dissatisfaction	.766	1.306	.766	1.306
Pressure	.815	1.227	.815	1.227

Information	.761	1.314	.761	1.314
Internalization	.526	1.902	.526	1.902

- a. Dependent Variable: CSI  
b. Dependent Variable: CNSI

#### 4.5 Descriptive Statistics of Study Variables

Minimum, maximum, mean and standard deviations of the study variables are presented in Table 4-15. Among the predicting variables, mean score for media information was 3.4773 (SD=.92707) and mean score for media pressure was 3.6281 (SD=1.02992). The mean score for mediating variables of internalization, appearance investment and body dissatisfaction estimated to be 2.7426 (SD=1.04759), 3.6844 (SD=.64288) and 2.5179 (SD= .77872).

**Table 4-15.** *Descriptive statistics of study variables*

Descriptive Statistics					
Variables	N	Minimum	Maximum	Mean	Std. Deviation
<b>Appearance investment</b>	463	1.56	5.00	3.6844	.64288
<b>Body dissatisfaction</b>	463	1.00	4.60	2.5179	.77872
<b>Media pressure</b>	463	1.00	5.00	3.6281	1.02992
<b>Media information</b>	463	1.00	5.00	3.4773	.92707
<b>Media internalization</b>	463	1.00	5.00	2.7426	1.04759
<b>Cosmetic surgery intention</b>	463	1.00	5.00	2.9492	1.10288
<b>Cosmetic non-surgical procedure intention</b>	463	1.00	5.00	3.1451	1.15538

As dependent variables, the mean score of cosmetic surgery intention estimated to be 2.9492 (SD= 1.10288), and the mean score of cosmetic non-surgical procedure intention estimated to be 3.1451 (SD= 1.15538). About 51% of the participants had a level of intention to undergo cosmetic surgeries (ranged from 1 to 5) more than the assumed average of 3. Likewise, about 58% of the participants had a level of intention to undergo cosmetic non-surgical intention (ranged from 1 to 5) more than the assumed average of 3.

Table 4-16 provides mean, standard deviation and frequency for each item of cosmetic surgery intention scale. For example, according to this table, more than 60% of

participants reported their agreement (agree or strongly agree) to the item that stated “If I feel I need cosmetic surgical procedures in the future, I will have it” (item mean= 3.59, SD= 1.134).

**Table 4-16. Frequency table for cosmetic surgery intention items**

Items	Frequency	Percentage	Cumulative Percent
In the future, I could end up having some kind of cosmetic surgery.	Strongly disagree	166	35.9
	Disagree	133	28.7
	Neither agree nor disagree	69	14.9
	Agree	61	13.2
	Strongly agree	34	7.3
	<b>Total</b>	463	100.0
<b>Mean= 2.27 (SD= 1.274 )</b>			
If I could have a surgical procedure in a low price, I would consider trying it.	Strongly disagree	146	31.5
	Disagree	126	27.2
	Neither agree nor disagree	59	12.7
	Agree	69	14.9
	Strongly agree	63	13.6
	<b>Total</b>	463	100.0
<b>Mean= 2.52 (SD= 1.414 )</b>			
If I knew there would be no negative side effects or pain, I would like to try cosmetic surgery.	Strongly disagree	104	22.5
	Disagree	92	19.9
	Neither agree nor disagree	83	17.9
	Agree	109	23.5
	Strongly agree	75	16.2
	<b>Total</b>	463	100.0
<b>Mean= 2.91 (SD= 1.406 )</b>			
I have sometimes thought about having cosmetic surgery.	Strongly disagree	69	14.9
	Disagree	62	13.4
	Neither agree nor disagree	50	10.8
	Agree	196	42.3
	Strongly agree	86	18.6
	<b>Total</b>	463	100.0
<b>Mean= 3.36 (SD= 1.330)</b>			
I would never have any kind of cosmetic surgery (R).	Strongly disagree	79	17.1
	Disagree	47	10.2
	Neither agree nor disagree	161	34.8

	Agree	128	27.6	89.6
	Strongly agree	48	10.4	100.0
	<b>Total</b>	463	100.0	
	<b>Mean= 3.04 (SD= 1.215 )</b>			
If I feel I need cosmetic surgical procedures in the future, I will have it.	Strongly disagree	34	7.3	7.3
	Disagree	46	9.9	17.3
	Neither agree nor disagree	90	19.4	36.7
	Agree	200	43.2	79.9
	Strongly agree	93	20.1	100.0
	<b>Total</b>	463	100.0	
	<b>Mean= 3.59 (SD= 1.134 )</b>			

Table 4-17 provides mean, standard deviation and frequency for each item of cosmetic non-surgical procedure intention scale. For example according to this table, more than 60% of participants reported their agreement (agree or strongly agree) to the item that stated “If I feel I need cosmetic non-surgical procedures in the future, I will have it” (item mean 3.52, SD= 1.180).

**Table 4-17.** Frequency table for cosmetic non-surgical procedure intention items

Items	Frequency	Percentage	Cumulative Percent
In the future, I could end up having some kind of cosmetic non-surgical procedure.	Strongly disagree	87	18.8
	Disagree	116	25.1
	Neither agree nor disagree	101	21.8
	Agree	100	21.6
	Strongly agree	59	12.7
	<b>Total</b>	463	100.0
	<b>Mean= 2.84 (SD= 1.307 )</b>		
If I could have a non-surgical procedure in a low price, I would consider trying it.	Strongly disagree	91	19.7
	Disagree	106	22.9
	Neither agree nor disagree	96	20.7
	Agree	100	21.6
	Strongly agree	70	15.1
	<b>Total</b>	463	100.0
	<b>Mean= 2.90 (SD= 1.352 )</b>		
	Strongly disagree	81	17.5

If I knew there would be no negative side effects or pain, I would like to try cosmetic non-surgical procedure.	Disagree	93	20.1	37.6
	Neither agree nor disagree	88	19.0	56.6
	Agree	109	23.5	80.1
	Strongly agree	92	19.9	100.0
	<b>Total</b>	463	100.0	
<b>Mean= 3.08 (SD= 1.389)</b>				
I have sometimes thought about having cosmetic non-surgical procedure.	Strongly disagree	76	16.4	16.4
	Disagree	69	14.9	31.3
	Neither agree nor disagree	71	15.3	46.7
	Agree	157	33.9	80.6
	Strongly agree	90	19.4	100.0
<b>Total</b>	463	100.0		
<b>Mean= 3.25 (SD= 1.365)</b>				
I would never have any kind of cosmetic non-surgical procedure (R).	Strongly disagree	57	12.3	12.3
	Disagree	48	10.4	22.7
	Neither agree nor disagree	144	31.1	53.8
	Agree	138	29.8	83.6
	Strongly agree	76	16.4	100.0
<b>Total</b>	463	100.0		
<b>Mean= 3.28 (SD= 1.216 )</b>				
If I feel I need cosmetic non-surgical procedures in the future, I will have it.	Strongly disagree	45	9.7	9.7
	Disagree	39	8.4	18.1
	Neither agree nor disagree	99	21.4	39.5
	Agree	190	41.0	80.6
	Strongly agree	90	19.4	100.0
<b>Total</b>	463	100.0		
<b>Mean= 3.52 (SD= 1.180 )</b>				

#### 4.5.1 More results of intention to undergo cosmetic procedures

In this section we would like to highlight some by-results of this study which are not included in research objectives but deserve discussion.

The results of this study showed that the mean value of intention to undergo cosmetic surgery was less than the mean value of intention to undergo cosmetic non-

surgical procedures (see **Table 4-18**). A paired sample t-test (see **Table 4-19**) revealed that this difference is statistically significant ( $p=0.000$ ).

**Table 4-18.** *Statistics of cosmetic procedures intention*

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	CSI	2.9492	463	1.10288	.05125
	CNSI	3.1451	463	1.15538	.05370

**Table 4-19.** *Paired sample t-test on cosmetic surgery and non-surgical procedure inattention*

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval				
					Lower	Upper			
Pair 1	CSI - CNSI	-.19582	.86515	.04021	-.27484	-.11681	-4.870	462	.000

Although the mean differences are not great (0.195), we still can conclude that participants were more intended to undergo cosmetic non-surgical procedures rather than cosmetic surgeries.

In the next step we decided to analyze the potential significant difference in intention levels of participants who have done cosmetic procedures before, and participants who have not done any cosmetic procedures before. To this end, two independent samples t-tests were performed for cosmetic surgery intention and cosmetic non-surgical procedure intention.

**Table 4-20.** *Group statistics and mean differences*

	Previous experience	N	Mean	Std. Deviation	Std. Error Mean
Cosmetic surgery intention	No	342	2.7247	1.04733	.05663
	Yes	121	3.5840	1.00787	.09162
Cosmetic non-surgical procedure intention	No	331	2.7825	1.04496	.05744
	Yes	132	4.0543	.88993	.07746

**Table 4-21. Independent samples t-tests**

		Levene's Test for Equality of Variances		t-test for Equality of Means					
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
								Lower	Upper
<b>CSI</b>	Equal variances	.019	.890	-7.833	461	.000	-.85936	-1.07496	-.64377
	Not equal variances			-7.978	218.009	.000	-.85936	-1.07166	-.64707
<b>CNSI</b>	Equal variances	10.157	.002	-12.314	461	.000	-1.27182	-1.47478	-1.06885
	Not equal variances			-13.189	280.942	.000	-1.27182	-1.46163	-1.08200

As seen in Table 4-20 the mean value of intention to undergo cosmetic surgery in the group (n=121) that had cosmetic surgeries in the past (mean= 3.58), is higher than the group (n=342) that had no cosmetic surgeries before (mean=2.72). Likewise, the mean value of intention to undergo cosmetic non-surgical procedures in the group (n=132) that had cosmetic non-surgical procedures in the past (mean= 4.05), is higher than the group (n=331) that had no cosmetic non-surgical procedures before (mean=2.78). This difference proved to be statistically significant through an independent samples t-test (see **Hata! Başvuru kaynağı bulunamadı.**).

These findings suggest that participants, who have experienced cosmetic procedures in the past, are more intended to have more cosmetic procedures in the future.

#### **4.6 Correlations among Study Variables**

In the next step all correlations among study variables were assessed through Pearson correlation that indicates how strongly two variables are linearly related through an r value between -1 and +1. The results of the correlation matrix (see Table 4-22) indicated that correlations among all 7 variables of the study model (AI, BD, Pre, Info, Inter, CSI and CNSI) are significant ( $p \leq 0.01$ ) in the expected direction with r values

ranged from 0.165 to 0.703 suggesting that all study variables are significantly linearly associated.

**Table 4-22.** Results of correlational analyses among study variables

Variables	AI	BD	Pre	Info	inter	CSI	CNSI
Appearance Investment	1						
Body Dissatisfaction	.193**	1					
Media Pressure	.189**	.203**	1				
Media Information	.280**	.165**	.325**	1			
Internalization	.434**	.473**	.393**	.448**	1		
Cosmetic Surgery Intention	.381**	.365**	.289**	.282**	.547**	1	
Cosmetic Non-surgical procedure Intention	.340**	.275**	.260**	.239**	.452**	.703**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

#### 4.7 Structural Equation Modeling

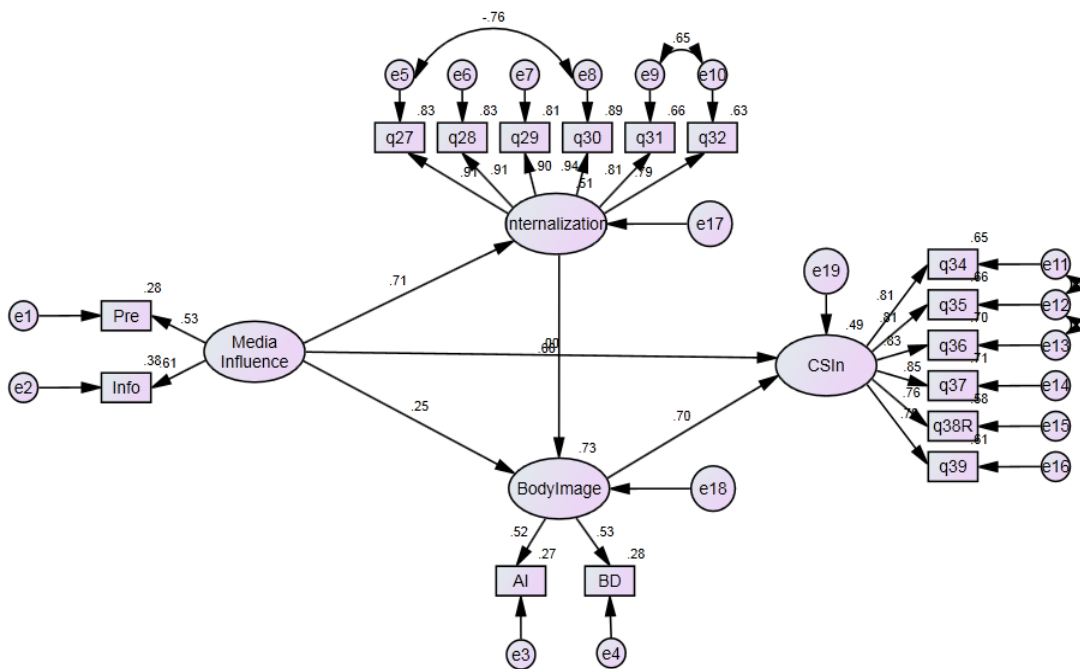
After conducting exploratory and confirmatory factor analyses to test the measurement model and assessing basic assumption, SEM was applied in order to develop and validate the proposed model and test the research hypotheses. Structural equation modelling refers to a series of statistical methods that allow complex relationships between one or more independent and dependent variables to determine and validate a proposed causal process and/or model as a confirmatory method. SEM can provide Goodness of fit measures which show whether the model is adequate and appropriate or needs further revision.

According to the results of a series of SEM analyses on different forms of the proposed model, finally the best model was selected to be reported in this study as the best fits to our data. Also regarding the fact that there are two dependent variables (intention to undergo cosmetic surgical procedures and non-surgical procedures) in this study, we need to examine the model through two separate models. In this study, the model is built in AMOS. First of all our initial research models were analyzed. The models were modified and changed according to the results, in each step.

##### 4.7.1 Testing the proposed model for cosmetic surgery intention

The model contains one independent variables of Media Influence consisting of two dimensions (media pressure and media information), two mediating variables (internalization and body image) and one dependent variable (cosmetic surgery intention). As seen in Figure 4-3, there are 5 direct paths and 4 indirect paths in this model.

Since there were similar items related to mass media and social media in the measurement scale (e.g. in internalization scale), high correlations were expected between similar items in SEM. So, a few correlations were added between error terms of the similar items in order to improve the model fit. Table 4-23 provides the fit indices for the final modified model. According to the results all fit indices of the modified model are great suggesting that the proposed model fit the observed model; comparative fit index (CFI = 0.930 > 0.90), Tucker-Lewis index (TLI = 0.962 > 0.90), normed fit index (NFI = 0.954 > 0.90), goodness of fit index (GFI = 0.930 > 0.90), adjusted goodness of fit index (AGFI = 0.900 > 0.90) and root mean square error of approximation (RMSEA = 0.064 < 0.07).



**Figure 4-3.** The standirdized output of SEM for the modified model for cosmetic surgery intetntion

**Table 4-23.** Model fit indices of the second proposed model for cosmetic surgery intention

Fit Indices	$\chi^2$	df	$\chi^2/df$	GFI	AGFI	NFI	IFI	TLI	CFI	RMSEA
<b>Modified model</b>	272.738	95	2.871	.930	.900	.954	.970	.962	.970	.064

Table 4-24 provides factor loadings and critical ratios (CR), for all variables in the model. According to the table and the proposed model, the factor loadings for all items/components are significantly more than 0.5, and also CR values for all of them is more than the acceptable minimum of +1.96, which indicates that items/components can measure research variables well.

**Table 4-24.** Factor loadings and critical ratios for study variables

Variables	Items/components	Factor loading	S.E.	C.R.	P
Media influence	Information	.615	----	---	***
	Pressure	.531	.127	7.569	***
Internalization	Q27	.914	----	----	***
	Q28	.913	.031	32.536	***
	Q29	.898	.030	31.196	***
	Q30	.943	.036	27.617	***
	Q31	.812	.036	24.743	***
	Q32	.794	.037	23.650	***
Body image	Appearance investment	.522	---	--	***
	Body dissatisfaction	.532	.150	8.215	***
Cosmetic surgery intention	Q34	.805	----	----	***
	Q35	.813	.042	26.354	***
	Q36	.834	.057	20.110	***
	Q37	.845	.053	20.485	***
	Q38	.764	.050	17.945	***
	Q39	.780	.047	18.425	***

\*\*\*. Significant at the 0.001 level

Although the results of SEM on this model showed that the modified model has good fit indices, some of the direct paths between study variables were rejected. According to paths and standard coefficients of direct paths between variables in the final

model which is presented in Table 4-25, three paths (1 to 3) were confirmed ( $p < 0.05$ ) while two paths (4 and 5) were rejected ( $p > 0.05$ ).

**Table 4-25.** Standard coefficients of direct paths between study variables

Path	standardized B	Unstandardized B	S.E.	C.R.	P
1. Media influence → Internalization	.714	1.340	.192	6.989	***
2. Internalization → Body image	.657	.206	.041	5.015	***
3. Body image → CSI	.698	2.132	.492	4.336	***
4. Media influence → Body image	.253	.149	.091	1.631	.103
5. Media influence → CSI	.001	.001	.287	.005	.996

\*\*\*. Significant at the 0.001 level

Since paths 4 and 5 were rejected, the following indirect path is not significant and cannot be included in the mediation analysis:

Media influence → Body image → Cosmetic surgery intention

#### 4.7.1.1 Mediation analysis

In this step, indirect paths were tested by bootstrapping method (sampling with replacement) in Amos. A bootstrap analysis with 1,000 bootstrap samples and the bias corrected confidence interval of 95% was used to examine the indirect effect estimates. If the 95% confidence interval does not include zero, the indirect path would be considered significant at the .05 level. Considering only the significant direct paths confirmed in SEM, 3 indirect paths are remained in the research model which are provided in Table 4-26.

**Table 4-26.** *Bootstrap Analysis of Magnitude and Statistical Significance of Indirect Effects*

Indirect Effect	Mean Indirect Effect	lower	upper	Two Tailed Significance
1. Media influence→Internalization→ body image	.495	.342	.698	.002
2. Internalization→body image → Cosmetic surgery intention	.481	.286	.625	.005
3. Media influence→Internalization→body image → Cosmetic surgery intention	.505	.379	.634	.003

Note.\*95% Confidence Interval does not include zero and therefore is significant at  $p < .05$

According to the bootstrap results, the mediating effect of internalization in the association between media influence and body image was 0.495 statistically significant. Considering the fact that the direct effects of media influence on body image were rejected in the SEM, we can conclude that internalization fully mediate the association between media influence and body image.

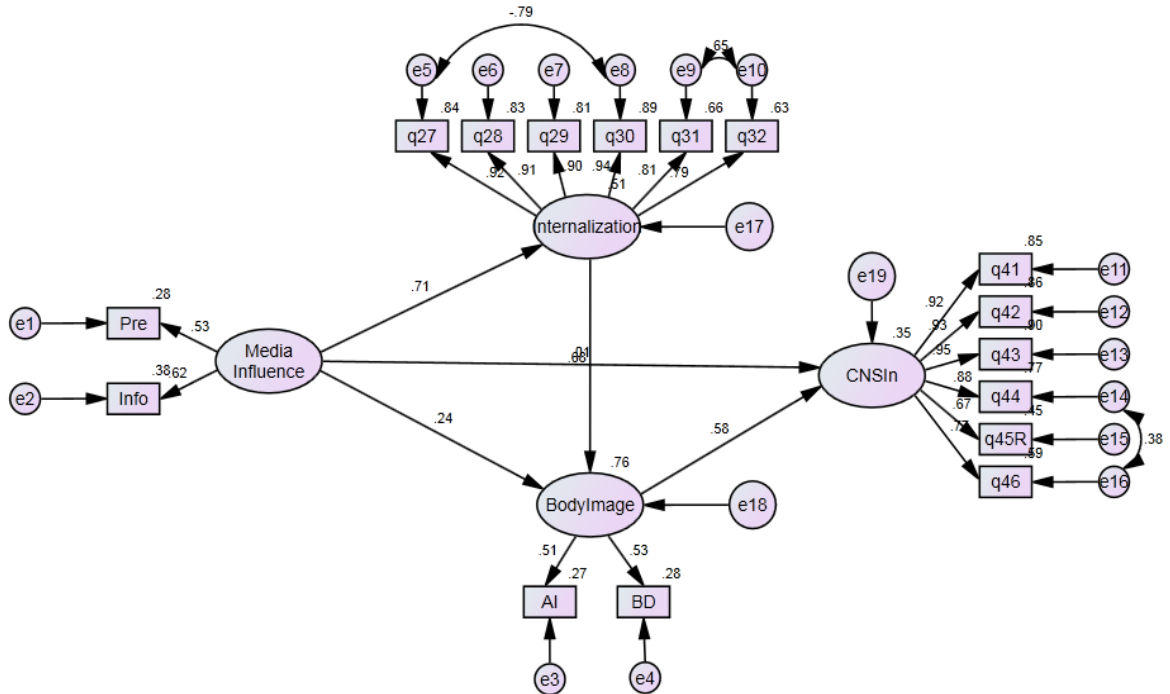
The mediating effect of body image in the relationship between internalization and cosmetic surgery intention (0.481) was also statistically significant. Since the direct effect of internalization on cosmetic surgery intention was not confirmed in SEM, so we can conclude that body image fully mediate the association between internalization and cosmetic surgery intention.

The mediating effect of both internalization and body image in the relationship between media influence and cosmetic surgery intention was 0.505 statistically significant. Since the direct effects of media influence on cosmetic surgery intention was rejected in SEM, so we can conclude that internalization and body image fully mediate the association between media influence and cosmetic surgery intention.

#### **4.7.2 Testing the proposed model for intention to undergo cosmetic non-surgical procedures**

In this section, the proposed model is tested for cosmetic non-surgical procedure intention. This model contains one independent variables of Media Influence consisting of two dimensions (media pressure and media information), two mediating variables (internalization and body image) and one dependent variable (cosmetic non-surgical

procedure intention). As seen Figure 4-4 in here are 5 direct paths and 4 indirect paths in this model.



**Figure 4-4.** The standardized output of SEM for modified model for cosmetic non-surgical procedure intention

Since there were similar items related to mass media and social media in the measurement scale (e.g. in internalization scale), high correlations were expected between similar items in SEM. So, a few correlations were added between error terms of the similar items in order to improve the model fit. Table 4-27 provides the fit indices for the modified model. According to the results all fit indices of the modified model are great suggesting that the proposed model fit the observed model; comparative fit index (CFI = 0.976 > 0.90), Tucker-Lewis index (TLI = 0.970 > 0.90), normed fit index (NFI = 0.962 > 0.90), goodness of fit index (GFI = 0.935 > 0.90), adjusted goodness of fit index (AGFI = 0.908 > 0.90) and root mean square error of approximation (RMSEA = 0.060 < 0.07).

**Table 4-27.** Model fit indices of the second proposed model for intention to undergo cosmetic non-surgical procedures

Fit Indices	$\chi^2$	df	$\chi^2/df$	GFI	AGFI	NFI	IFI	TLI	CFI	RMSEA
<b>Modified model</b>	255.357	96	2.660	.935	.908	.962	.976	.970	.976	.060

Table 4-28 provides factor loadings and critical ratios (CR), for all variables. According to the table and the proposed model, the factor loadings for all items/components are significantly more than 0.5, and also CR values for all of them is more than 1.96, which indicates that items/components can measure research variables well.

**Table 4-28.** Factor loadings and critical ratios for study variables

Variables	Items/components	Factor loading	S.E.	C.R.	P
Media influence	Information	.620	----	---	***
	Pressure	.527	.126	7.511	***
Internalization	Q27	.915	--	---	***
	Q28	.912	.031	32.573	***
	Q29	.898	.029	31.234	***
	Q30	.944	.036	27.638	***
	Q31	.811	.036	24.712	***
	Q32	.793	.037	23.638	***
Body image	Appearance investment	.515	---	--	***
	Body dissatisfaction	.525	.153	8.069	***
Cosmetic non-surgical procedure intention	Q41	.922	----	----	***
	Q42	.929	.029	35.853	***
	Q43	.950	.028	38.569	***
	Q44	.877	.033	30.291	***
	Q45	.671	.038	17.806	***
	Q46	.769	.033	22.489	***

\*\*\*. Significant at the 0.001 level

Although the results of SEM on this model showed that the modified model has good fit indices, some of the direct paths between study variables were rejected (see Table 4-29). According to paths and standard coefficients of direct paths between variables in the final model, three paths (1 to 3) were confirmed ( $p < 0.05$ ) while two paths (4 and 5) were rejected ( $p > 0.05$ ).

**Table 4-29.** Standard coefficients of direct paths between study variables

	standardized B	Unstandardized B	S.E.	C.R.	P
1. Media influence → Internalization	.711	1.327	.190	6.972	***
2. Internalization → Body image	.684	.211	.041	5.194	***
3. Body image → CNSI	.581	2.115	.533	3.972	***
4. Media influence → Body image	.238	.137	.089	1.546	.122
5. Media influence → CNSI	.009	.019	.314	.060	.952

\*\*\*. Significant at the 0.001 level

Since paths 4 and 5 were rejected, the following indirect paths are not significant and cannot be included in the mediation analysis:

Media influence → Body image → Cosmetic non-surgical procedure intention

#### 4.7.2.1 Mediation analysis

In this step, indirect paths were tested by bootstrapping method (sampling with replacement) in Amos. A bootstrap analysis with 1,000 bootstrap samples and the bias corrected confidence interval of 95% was used to examine the indirect effect estimates. If the 95% confidence interval does not include zero, the indirect path would be considered significant at the .05 level. Considering only the significant direct paths confirmed in SEM, 3 indirect paths are remained in the research model which are provided in Table 4-30.

**Table 4-30.** Bootstrap Analysis of Magnitude and Statistical Significance of Indirect Effects

Indirect Effect	Mean Indirect Effect	lower	upper	Two Tailed Significance
1. Media influence → Internalization → body image	.513	.350	.721	.002
2. Internalization → body image → Cosmetic non-surgical procedure intention	.417	.260	.561	.003
3. Media influence → Internalization → body image → Cosmetic non-surgical procedure intention	.427	.316	.543	.002

Note.\*95% Confidence Interval does not include zero and therefore is significant at  $p < .05$

According to the bootstrap results, the mediating effect of internalization in the association between media influence and body image was 0.513 statically significant. Considering the fact that the direct effects of media influence on internalization were rejected in the SEM, we can conclude that internalization fully mediate the association between media influence and body image.

The mediating effect of body image in the relationship between internalization and cosmetic non-surgical procedure intention (0.417) was also statistically significant. Since the direct effect of internalization on cosmetic non-surgical procedure intention was not confirmed in SEM, so we can conclude that body image fully mediate the association between internalization and cosmetic surgery intention.

The mediating effect of both internalization and body image in the relationship between media influence and cosmetic non-surgical procedure intention was 0.427 statistically significant. Since the direct effects of media influence on cosmetic non-surgical procedure intention was rejected in SEM, so we can conclude that internalization and body image fully mediate the association between media influence and cosmetic non-surgical procedure intention.

## 5. DISCUSSION

### 5.1 General Discussion

This study set out to explore the role of mass media and social media influences on body image and intention to undergo cosmetic procedures through the Tripartite Influence Model. In other words, it is aimed to examine the influence of media pressure and media information on intention to undergo cosmetic procedures with the mediating role of internalization and body image among Iranian women. According to the literature, internalization was expected to mediate the association between media influence and body image. Furthermore, body image was expected to mediate the association between internalization and intention to undergo cosmetic surgical and non-surgical procedures.

The results of the structural equation model indicated a good fit to the data, with the mediating role of internalization and body image on the effect of media influence on intention to undergo cosmetic surgical and non-surgical procedures.

#### 5.1.1 Media usage

The descriptive analyses revealed that in our sample, the mean value of TV usage (2.56) and print media usage (2.28) were less than the mean value of social media usage (3.39) suggesting that social media is used more widely than mass media in this sample. This finding may imply the prevalence of social media usage in our contemporary world. Today conventional media like TV, occupies less time rather than the internet, video games and interactive social media that are competing for leisure hours (Hogan & Strasburger, 2008).

Likewise, the mean score for following appearance-related content on TV (2.25) and print media (2.10) were lower than in social media (2.52), suggesting that the participants are using social media as a source of information about beauty and appearance, beside mass media. Before development of social media, women were exposed to appearance-focused content on conventional media like films and magazines, however today, social media have provided a constant and active platform for sharing information about expected body shape and beauty ideals (Mabe et al., 2014). Although Iran is governed by an anti-West Islamic state, where there are not any references to

Western beauty and make up or bodily features except faces with covered hairs on mass media, surprisingly the beauty ideals in Iran reflect the Western media (Sadjed, 2016). This matter shows that the latest Western fashion beauty ideals are marketed mainly through social media and the illegal - but widely consumed- satellite TV in Iran (Kaivanara, 2017). Naghsh and Vafakhah's (2017) study also suggested that appearance-related media consumption including advertising beauty in satellite channels, fashion models and celebrities, Internet advertising and social media, were important factors in inclination to beauty among women living in Tehran.

### **5.1.2 Previous cosmetic procedure experiences**

The findings of the present study revealed that 122 (26%) of the participants had cosmetic surgical procedures, and 132 (28.1%) of the participants had cosmetic non-surgical procedures before. The number of reported cosmetic non-surgical procedures is more than surgical procedures in the research sample that is consistent with the higher demand for cosmetic non-surgical procedures rather than surgical procedures, which was discussed in previous parts of this study.

The findings also can represent the high number of cosmetic procedures done in Iran. Since body is considered an important part of the public discourse in Iran, the alteration of body is a normalized and dominant theme to the degree that most of the Iranian women have experienced at least one of cosmetic procedures, and undergoing a cosmetic surgery regardless of the result, is a determinant priority in their life (Farshidfar et al., 2013). Cosmetic procedures are not only considered not wrong for women in Iran, but also regarded rather necessary; it is not only about gaining beauty, but also is regarded as a socially valued process, as we see young people putting plasters on their noses without even having a nose job, or the pride behind the surgery and keeping plasters as a symbol on for a long time (Kaivanara, 2017; Zahedi, 2008; Mozaffari Niya et al., 2019). In this respect cosmetic procedures can be considered as symbolic consumption through which an individual signals wealth and status; the connection between self-modification and success suggests that alterations of the body have become a tool to seek and display social success (Sadjed, 2016).

One of the possible explanations for this can be the implementation of compulsory veiling and the violation against women rights in Iran (Karamallah et al, 2018). As a

result, a paradox has been formed for people who love Western fashion, culture and lifestyle in an Islamic society with rigid policies. Western lifestyle (which represents freedom, modernity, and consumerism) on one hand, and Islamic values (where inner values are prioritized over the appearance) on the other hand, formed a modern Iranian identity that combines both Islamic and western lifestyles, western cultures and religious traditions, and modern self-managements embedded in an Islamic framework (Sadjed, 2016). It is believed that deprivation of choice about their identity, self-presentation, and their place in society, inspired women to challenge authority by manipulating in an area where change is possible. So a higher emphasis were placed on the face and consequently the use of makeup and cosmetic procedures raised dramatically insofar as Iran became the third largest consumer of cosmetic products in the Middle East and the capital of nose surgery (Zahedi, 2008).

Regarding the type of cosmetic procedures, out of 227 participants who reported the type of procedures, rhinoplasty ranked first (57%) among surgical procedures and Botox injection ranked first (46%) among the reported cosmetic non-surgical procedures. The results are consistent with previous studies done in Iran. Karamallah et al. (2018) study on the sociocultural factors affecting cosmetic surgery intention on an Iranian sample revealed that rhinoplasty had the highest demand among cosmetic procedures. A study on a sample of students in Iran also revealed that nose rated first among body parts regarding to the perceived dissatisfaction with body parts and also the importance of body parts for individual, and rhinoplasty was rated first among the procedures that they intent to undergo in the future (Tahmasbi et al., 2014). Although all facial parts are influential in beauty, the importance of nose is critical regarding the fact that it occupies the central part of the face and cannot be hidden easily and affect individual's body image; so this awareness about the importance of the nose in facial beauty, has made nose job one of the most frequently requested cosmetic procedures (Naraghi et al., 2016). Some genetic factors such as the shape of the Iranians' noses with a bony and cartilaginous hump, as well as ethnic and racial factors are considered as the major reasons of Iranians' tendency towards rhinoplasty which is not comparable with other types of cosmetic surgeries (sharifi et al., 2016).

### **5.1.3 More results of intention to undergo cosmetic procedures**

The results of this study showed that the mean value of intention to undergo cosmetic surgery was significantly less than the mean value of intention to undergo cosmetic non-surgical procedures. So we can conclude that participants were more intended to undergo cosmetic non-surgical procedures rather than cosmetic surgeries. This finding is consistent with Lee and Lee's (2016) study on attitudes toward cosmetic surgical vs. non-surgical procedures indicating that participants had significantly more favorable attitudes toward cosmetic non-surgical than surgical procedures. They believe that some factors like lower expenditure, less side effects and pain, more accessibility and providing several alternatives to surgical procedures (e.g. skin laser and Botox instead of face-lift), have resulted in higher demand and popularity of cosmetic non-surgical procedures rather than surgical procedures (Lee & Lee, 2016).

We also analyzed the potential significant difference in intention levels of participants who have done cosmetic procedures before, and participants who have not done any cosmetic procedures before. The results indicated that the mean value of intention to undergo cosmetic procedures in the group that had cosmetic procedures in the past, is significantly higher than in the group that had no cosmetic procedures before. These findings suggest that participants, who have experienced cosmetic procedures in the past, are more intended to have more cosmetic procedures in the future. These results seem interesting and deserve more research to examine whether there is a relationship between having cosmetic procedures in the past and intention to have a cosmetic procedure in the future, or not.

A possible explanation of why people may be more willing to undergo more cosmetic procedures after the first experience can be the fact that the first experience might decrease their fear of medical or surgical procedures. Also it can be motivated by the positive feedback they received from their family and friends and more positive social interactions, after their first experience of undergoing cosmetic procedures. The cultural and social norms in Iran normally encourage and persuade people to undergo cosmetic procedures and to improve the appearance constantly. Another potential reason can be an unconscious comparison between other body parts and the perfect operated parts, which can lead women towards more perfectionism about appearance. For example women sometimes realize that the shape and size of their lips, cheeks and chin, does not match perfectly with their new nose shape; fuller lips and cheeks can magnify the beauty of their

new nose. Likewise sometimes further procedures are suggested by surgeons to maximize satisfaction with the results of cosmetic procedures.

Furthermore, we should consider the fact that some of the cosmetic procedure and especially non-surgical procedures like Botox and fillers need to be repeated because their results do not last forever. Maybe that is why the mean value of having cosmetic non-surgical procedures among the group who had these procedures before, is much higher than the other groups.

#### 5.1.4 Research hypotheses

According to the results of SEM, 3 main research hypotheses were accepted in both models (see Table 5-1 and Table 5-2). In other words, the mediating role of internalization and body image, on the effect of media influence on cosmetic surgical and non-surgical procedures were confirmed.

It means that media influence (media pressures and information) is related to intention to undergo both surgical and non-surgical cosmetic procedures indirectly through increasing internalization of media ideals, body dissatisfaction and appearance investment.

**Table 5-1.** *Research hypotheses for cosmetic surgery intention*

<b>Direct and Indirect Effect</b>	
<b>1. Media influence → Internalization → Body image</b>	<b>Accepted</b>
Media influence → Internalization	Accepted Accepted
Internalization → Body image	Not accepted
Media influence → Body image	
<b>2. Internalization → Body image → Cosmetic surgery intention</b>	<b>Accepted</b>
Internalization → Body image	Accepted Accepted
Body image → Cosmetic surgery intention	Not accepted
Internalization → Cosmetic surgery intention	
<b>3. Media influence → Internalization → Body image → Cosmetic surgery intention</b>	<b>Accepted</b>
Media influence → Cosmetic surgery intention	Not accepted

**Table 5-2.** *Research hypotheses for cosmetic non-surgical procedure intention*

<b>Direct and Indirect Effect</b>	
<b>1. Media influence → Internalization → Body image</b>	<b>Accepted</b>
Media influence → Internalization	Accepted Accepted
Internalization → Body image	Not accepted
Media influence → Body image	
<b>2. Internalization → Body image → Cosmetic non-surgical procedure intention</b>	<b>Accepted</b>
Internalization → Body image	Accepted
Body image → Cosmetic non-surgical procedure intention	Accepted
Internalization → Cosmetic non-surgical procedure intention	Not accepted
<b>3. Media influence → Internalization → Body image → Cosmetic non-surgical procedure intention</b>	<b>Accepted</b>
Media influence → Cosmetic non-surgical procedure intention	Not accepted

#### **5.1.4.1 Internalization as a mediator**

Firstly, the results of SEM for both models, confirmed the significant and positive direct effect of media influence on internalization, indicating that participants who perceived greater influence from the media (pressure and information) reported higher levels of internalization of beauty ideals. These results are aligned with previous studies (Mingoa et al, 2017; Shahyad et al., 2018; Menzel et al., 2011; Huxley et al., 2015) on the effect of media pressure and media information on internalization of media beauty ideals. It is believed that beauty ideals are learned from media; media transmit attractiveness ideals (media information) and apply pressure to women to internalize and conform to those beauty standards (Higgins & Wyson, 2018).

Likewise, the results confirmed the significant and positive direct effect of internalization on body image, which means participants who have more internalized media beauty ideals, reported higher levels of body dissatisfaction and appearance investment. Previous studies have supported our results (Shahyad et al., 2018; Shahyad et al., 2015; Sharp et al., 2014; Vartanian, 2009; Jones et al., 2004). Negative body image which is now considered normative around the world can be intensified by individual's internalized beauty ideals promoted by media and advertisement industry (Sharifi et al., 2016). More than two decades of experimental and observational study have confirmed that one of the main causes of negative body image is internalization of beauty ideals

transmitted by TV, Internet and advertisements, that if is not impossible, it is difficult for most people to achieve (Abraham & Zuckerman, 2011; Shahyad et al., 2016).

However, according to the results of the SEM for both models, the significant and positive direct effect of media influence on body image was rejected in our research sample (the indirect effect of media influence on body image through the internalization was approved). Although many correlational and experimental studies have confirmed the association between media influence and body dissatisfaction and appearance investment (Sepúlveda & Calado, 2012; Huxley et al., 2015; Poorna & Vijaybanu, 2016), or the association between media and social media exposure on negative body image (Cohen & Blaszczynski 2015; Kleemans et al., 2018; Cohen et al., 2017; Fardouly & Vartanian 2016; Tiggemann & Slater 2013; Latzer et al., 2015), our findings did not support any direct effect of media influence on body image. Jones et al. (2004) study also did not support any direct effect of magazines as a form of media on body image; however, the indirect effect through the internalization was supported. Fardouly et al. (2015) study also revealed that Facebook exposure did not have a direct effect on body image; however, the indirect path was supported. These results are consistent with our observations in the present study. A possible explanation can be what Vartanian (2009) noted; only individuals who have internalized societal standards of attractiveness are affected by exposure to media images and get into body image problems. It means that people who do not buy into beauty ideals transmitted through mass media and social media, do not feel pressure to conform to those ideals, and consequently do not promote negative attitudes toward their body in comparison with those ideals. As mentioned in the literature review, internalization is the mechanism that transforms media influence into psychological risk factors that can promote negative body image.

Finally, the results of the present study supported that internalization significantly fully mediate the relationship between media influence and body image (the first hypothesis) in both models (CSI and CNSI). In other words, participants who perceived greater influence from media, reported higher levels of body dissatisfaction and appearance investment through the internalization of media beauty ideals. Considering the fact that the direct effects of media influence on internalization were rejected in the SEM, we can conclude that internalization fully mediate the association between media influence and body image. These results are widely supported by previous studies that

showed internalization significantly mediates the relationship between media influence and body image (Menzel et al., 2011; Keery et al., 2004). Bair et al. (2012) as well as Tiggemann and Miller (2010) also revealed that the association between mass media (e.g. TV and magazines) and Internet usage and body dissatisfaction was mediated by internalization.

#### **5.1.4.2 *Body image as a mediator***

First, the results of SEM, confirmed the significant and positive direct effect of body image on intention to undergo both cosmetic surgical and non-surgical procedures. In other words, participants who reported higher levels of body dissatisfaction and appearance investment reported higher levels of intention to undergo cosmetic surgical and non-surgical procedures. Our observations were consistent with previous studies (Soest et al., 2006; Slevic & Tiggemann, 2010; Figueroa et al., 2008; Hogan & Strasburger, 2008; Farshidfar et al., 2013; McCabe & Ricciardelli, 2003; Asfajir & Ghasemi, 2017; Walker et al., 2019). Tahmasbi et al. (2014) study on the effect of different psychological, familiar and cultural factors on intention to undergo cosmetic surgery among Iranian students demonstrated that negative body image was the most important influencing factor for intention to undergo cosmetic surgery. Veale et al. (2013) indicated that women seeking labiaplasty reported a significantly higher level of dissatisfaction towards the appearance of genitalia. Body image is considered central to our understanding of psychological issues of cosmetic surgery; both body dissatisfaction and appearance investment are the prime motivations to pursue cosmetic surgery (Sarwer et al., 1998b).

The results also confirmed that body image significantly mediate the association between internalization and both cosmetic surgery and non-surgical procedure intention (Second research hypothesis). In other words, participants who have more internalized media beauty ideals, reported higher levels of intention to undergo both surgical and non-surgical procedures through their body image (body dissatisfaction and appearance investment). Since the direct effect of internalization on cosmetic surgical and non-surgical procedure intention was not confirmed in SEM, so we can conclude that body image fully mediate the association between internalization and cosmetic surgical and non-surgical procedure intention. This mediating effect has been confirmed and validated

in previous studies (Fardouly et al., 2015). Vartanian (2009) indicated that body image fully mediated the association between internalization and dieting behaviors as a body change behavior among women.

#### **5.1.4.3 *The mediating role of internalization and body image***

The results of the SEM for models, did not confirm the significant and positive direct effect of media influence on intention to undergo cosmetic surgical and non-surgical procedures (however the indirect effect through internalization and body image was confirmed). Most of the previous studies indicated the direct relationship between media influence and intention to undergo cosmetic procedures (McCabe & Ricciardelli, 2003; Sarwer et al., 2005; Menzel et al., 2011; Sood et al. 2017; Walden et al., 2010) or the effect of media and social media exposure on intention to undergo cosmetic procedures (Slevec & Tiggemann 2010; Arab et al., 2019). Salehahmadi and Rafie's (2012) study on the motivating factors of undergoing cosmetic procedures on a sample of Iranian men and women revealed that media as a sociological factor, is one of the most influential factors on likelihood of undergoing cosmetic surgery. Regarding the fact that to the best of our knowledge, this study is the first study that examines social media influence (pressure and information) instead of social media usage, no previous study was found to support the relationship between social media influence and intention to undergo cosmetic procedures. But many studies have indicated that social media exposure/usage is related to intention to undergo cosmetic procedures (Walker et al., 2019).

However, Nerini et al. (2014) study indicated no significant direct relationship between media influence and interest in cosmetic surgery. The results of their study indicated that media pressure can predict interest in cosmetic surgery only through the full mediation of internalization of thin ideals. In social media case also Fardouly et al. (2015) study revealed that Facebook exposure did not have a direct effect on desire to change appearance; however, the indirect path was supported. These results are consistent with our observations in the present study.

The mediating effect of both internalization and body image in the relationship between media influence and intention to undergo cosmetic surgical and non-surgical procedures was statistically significant (third research hypothesis). Since the direct effects of media influence on cosmetic non-surgical procedure intention was rejected in SEM, so

we can conclude that internalization and body image fully mediate the association between media influence and cosmetic non-surgical procedure intention. This full mediation may show that in case of appearance concerns and appearance change behaviors, not all women are equally affected by media (Fardouly et al., 2015); only women who had internalized media beauty ideals and are not satisfied with their body image desire to change their appearance. Individual differences like appearance investment and body dissatisfaction as well as internalization of media ideals are influential on the negative consequences of media influence; women high in body dissatisfaction and appearance investment report more negative reactions to media influence (Ip & Jarry, 2008).

This mediating effect has been validated in previous studies like Menzel et al. (2011) indicating that both internalization and body dissatisfaction mediate the effect of perceived pressures of media on cosmetic surgery attitudes. Nikoogoftar and Minoosepehr's (2015) study on a sample of Iranian students also indicated that media influence (pressure, information and internalization) predict tendency for cosmetic surgery through the mediation of appearance investment. Similarly, Vries et al. (2014) social media predicted desire to undergo cosmetic surgery indirectly through the mediation of appearance investment.

## **5.2 Theoretical Implications**

The present study contributes to the existing literature regarding to the influence of media on body image and intention to undergo cosmetic procedures, by exploring the mass media and social media influences through Tripartite Influence Model. The findings of the present study contribute to the understanding of the sociocultural mechanisms underlying women's motivations for cosmetic surgery. The model may provide preliminary evidences for understanding the formation of positive attitude towards body change behaviors and the increasing rate of cosmetic procedures among Iranian women, in light of perceived mass media and social media influences and psychological features like internalization of media promoted beauty ideals. Investigating sociocultural models of body image and body shaping behaviors is necessary for perceiving risk factors and predictors of negative body image and consequently undergoing cosmetic procedures.

Previous studies are supported by finding from Iranian sample, where surgical and non surgical cosmetic procedures are very popular. The results of this study on an Iranian sample, which were aligned with similar studies on other countries, underlined the fact that Iranian women are also affected by the global appearance culture, because of the widespread influence of mass media and social media which has no national boundaries.

The findings of the present study may extend previous research on the intention to have cosmetic procedures in several ways. First of all, we expanded the basic Tripartite Influence Model to include “information” as a distinct construct of media influence. Although the existing literature (e.g. Thompson et al., 2004; Harrison, 2009) have suggested three constructs for media influence (pressure, information and internalization), most of the previous studies have not examined the influence of media as an information source. Few studies that address information (e.g. Nikoogoftar & Minoosepehr, 2015; Uchôa et al., 2019), have included items related to information into their media influence scale, combined with pressure and internalization items (all as one variable), which may underestimate the role of media as an information source in analyzing media influence. The present study can contribute to the existing literature by highlighting the role of information provided by different forms of media, on body image and intention to undergo cosmetic surgical and non-surgical procedures.

Likewise, the basic Tripartite Influence Model has been expanded in this study, to include social media as an additional source of influence on body image and intention to undergo cosmetic procedures. Indeed, in this study we assessed social media influence on body image and intention to undergo cosmetic procedures, not through measuring social media exposure, but through more subjective indicators of media influence (pressure, information and internalization) which seem to be more directly related to body image (Cafri et al., 2005). Our analyses suggested that social media, as a new form of media, can affect body image and intention to undergo cosmetic procedures through providing information about societal beauty ideals and new trends in cosmetic procedures, creating pressure toward conformity to those ideals, and contributing to the internalization of those ideals.

Altogether, these findings offer a significant support for the Tripartite Influence Model of body image in cosmetic surgery context and suggest that the Tripartite Influence

Model is a useful framework for examining social media as well as mass media influences on intention to have cosmetic procedures.

These findings may encourage future studies on the effect of different social media influences (pressure, information, internalization, social comparisons, etc.) on negative body image and intention to undergo cosmetic procedures. However, the results of the present study did not suggest any separation between mass media and social media items, because of the high correlation between mass media and social media influences. This finding highlights the fact that appearance messages are transmitted through different forms of media simultaneously. So maybe it is not possible to isolate the influence of media from social media because people are exposed to both of them concurrently. Likewise, as mentioned above, these findings can contribute to future studies regarding the development of a validated scale that assesses the social media influence, with consideration of its differences from mass media like interactivity and peer feedbacks in social media which can affect body image and cosmetic surgery intention in a different way from the mass media.

Also, the results of this study highlighted the importance of both dimensions of body image; body dissatisfaction and appearance investment. Appearance investment refers to the importance, meaning, and effects of appearance in one's behaviors, which is necessary for a better understanding of body image attitude and body change behaviors. People seeking cosmetic procedures obtain much of their self-esteem from their appearance, because their physical appearance is a central and important part of their sense of self, insofar as the body is a representation of their self (Sarwer et al, 1998a). From this point of view, body dissatisfaction is not the only reason to undergo cosmetic procedures or any other body-change behaviors; in this case, the body is considered as an improvable project for the self that can be shaped and developed through limitless possibilities that the market has provided in recent years. People may change their bodies not because they are not satisfied with it, but because they "can" change it and "control" it whenever they want. Although we explored the role of body image in this study and considering the fact that body image is just one part of our self-concepts, so the role of self-esteem, self-presentation and self-efficacy, ideal self and real self seems to deserve more research in this context as well.

Not aligned with some previous studies, our results did not support the direct effect of media influence as well as internalization on intention to undergo cosmetic procedures. These findings can contribute to the existing literature by highlighting the role of body image and by emphasizing the fact that media can not directly affect the intention to undergo cosmetic procedures. There should be some individual characteristics like internalization of beauty ideals and body image which can translate media influence into the intention to undergo cosmetic procedures. Media rarely can exert a simple direct effect in isolation; it affects people by interaction with context and personal characteristics (Perloff, 2014). Media, as a sociocultural influence source, affect people's behavioral intention through internalization, which is a psychological factor.

Finally, as an additional finding of this study, the results suggested that participants, who have experienced cosmetic procedures in the past, are significantly more intended to have more cosmetic procedures in the future. These findings can contribute to the existing literature and model, by suggesting “previous cosmetic procedure experiences” as a potential moderator for intention to undergo cosmetic procedures in the future.

### **5.3 Practical Implications**

The findings of the present study offer some practical implications for media decision makers, cosmetic surgeons and potential patients as well. The present study examined some of the extrinsic (media influence) and intrinsic (internalization and body image) factors that affect consumers’ decision to undergo cosmetic procedures. It is believed that this valuable knowledge can provide a better understanding of underlying consumer motives in the marketplace that can enrich practitioners’ understanding and care of their patients and also help patients make more clear decisions (Watchravesringkan, 2008; Valikhani & Goodarzi, 2017).

An important difference of decision to undergo cosmetic procedures from other purchase decisions is that cosmetic surgery is much riskier. The risk may include not only health-related risks like side effects of anesthesia, bleeding, infections and losing function in body parts, but also psychological risks, such as personality disorder, body dysmorphic disorder and dissatisfaction by irreversible results of surgery (Wen, 2017; Alexias et al.,

2012). So the customer engages in an ambiguous and risky decision making process which is shaped and modified through various discourses in the society, the media, and the medicine (Tari, 2008). We believe that this knowledge about the internal and external (cultural, interpersonal) underlying factors, help and encourage them to make a better decision especially in case of unnecessary cosmetic procedures. Because sometimes people undergo these procedures without much planning and not because of their own desire, but because of the recommendation of a friend or beauty clinic, or mass media and social media motivations like ads, before and after pictures in magazines and television shows (Kim & Cho Chung, 2018). Patients should be aware that in a culture that sees the body a commodity, where women face lots of social pressure to be attractive, and where there is a positive attitude about cosmetic surgery as a result of advertisements and promotions of cosmetic surgery, it doesn't seem that decision to undergo cosmetic procedures is made solely by the individual itself; it can be considered as a collective and social decision not a personal priority (Zare et al., 2014).

The findings of the study may also affect surgeons' own attitudes and their interpersonal interactions with patients. The findings can provide them an important insight in addressing their patients' motives and expectations. The findings suggest that cosmetic surgeries are more complicated than other types of surgery because a cosmetic surgery is not aimed at improving an organ's function (like other surgeries), it is aimed at improving the consumers' body image. So, cosmetic surgeons require more than just surgical skills; they require knowledge about patients' aesthetic perceptions and psychological variables like their body esteem and body image, to achieve more satisfactory results (Naraghi et al., 2016). Although the results can provide a more clear insight for cosmetic surgeons about the potential influence of the content of their ads which is one of the most important sources of information about cosmetic surgery for consumers. This study provides some implications not only for the cosmetic surgeons who communicate with their target audience through advertisements, mass media and social media, but also for all the message sources that have a potential influence on such an important decision to undergo cosmetic procedures. Regarding the fact that many cosmetic surgeries are performed in order to correct shape-changes and disfigurements, here we are not insisting that cosmetic surgery should be avoided in all cases; but we believe that patients need to know more about these procedures, potential complications

and risks, to be able to make a more clear decision. So cosmetic surgeons must provide more scientific, detailed and comprehensive information about cosmetic procedures, their benefits, risks, complications and results, and one sided messages including only the benefits and aesthetic results must be avoided. Especially in countries like Iran where the advertisement for cosmetic surgery is disallowed on conventional media, social media remains the only communication and advertisement tool for surgeons, which is often monitored and supervised less than conventional media. Considering the fact that adolescents frequently use social media that can affect their body image and their willingness to undergo cosmetic surgery, and regarding the increasing number of teens undergoing cosmetic procedures (ISAPS, 2019) it seems necessary that the influential content of these messages should be overseen by national or international societies of aesthetic surgery.

The findings provide knowledge about the key determinants of negative body image, which is necessary for organization and execution of all prevention programs or strategies designed to reduce the levels of negative body image and unnecessary body-change behaviors in the society. Since women's body image is apparently worsening during last decades, it seems necessary to execute programs and interventions for treatment and prevention of body image dissatisfaction and to promote body acceptance, self-esteem and self-confidence and, form a body image that enhances the quality of their lives (Cash & Fleming, 2002). Especially adolescents should be educated to be more self-confident and accept their bodies and beauty as a whole, not a collection of body parts that should be corrected (Abraham & Zuckerman, 2011). These programs not only may reduce the number of unnecessary cosmetic procedures, but also can be used beside cosmetic surgery to get better results and more satisfactory body image (Sharifi et al., 2016; Shridharani et al., 2010; Nejadsarvari et al., 2016; Sarwer et al., 1998b). Cash (1996) also stated that the only purpose of cosmetic surgery is to enhance individual's body image which means that improving patients' physical appearance is not a priority; on the contrary the first concern is to enhance patients' subjective body image that sometimes can be achieved through a therapeutic program instead of undergoing a surgery. The results of Naraghi et al. (2016) study on comparing aesthetic nasal proportions between rhinoplasty candidates and a control group surprisingly demonstrated that the case group and the control group did not differ in facial aesthetic

proportions (objective face attributes). These results emphasize the importance and central role of “subjective” body image rather than objective/realistic body characteristics (or aesthetic proportions) in motivating individuals to apply for a cosmetic surgery.

Since Iran has witnessed an explosion in the number of cosmetic procedures during the last decades, so it can be considered not as a personal issue but as a social matter stemming from the overemphasis on fashion and beauty (Salehahmadi & Rafie, 2012). So social marketing also can be used in order to enhance women’s body images and also to enhance social norms; for example by developing messages and slogans to emphasize the benefits of positive body image and the negative costs associated with body dissatisfaction, informing women about the actual frequency of certain attitudes and behaviors linked with body dissatisfaction (e.g., dieting, unrealistic expectations for the body, internalizing the media’s body ideals) and increasing access to quality information about body image through various places (such as schools, health clinics, community centers, beauty salons, and social media) with the intent to create social pressure for change negative body attitudes, perfectionism in body ideals and normalization of cosmetic procedures.

The findings also highlighted the effect of mass media and social media on negative body image and intention to undergo cosmetic procedures. The role of media in promoting unrealistic body ideals like being young and slim is influential and often problematic (Dean et al., 2018; Nejad sarvari et al, 2016). It is proved that media contribute to the popularity and normalization of cosmetic surgery by presenting unrealistic perfect body images which not only construct unachievable beauty norms, but also result in appearance comparisons, body dissatisfaction, low self-esteem and anxiety (Lee & Clark, 2014). Although people often claim that they are improving their body in sake of personal fulfillment and satisfaction, but they are actually investing their money and time to achieved socially-determined beauty ideals; it means that more often than not, cosmetic surgery is related to reasons that are social rather than physical in origin (Adams, 2013).

Today, people are heavy users of media in different forms which heavily emphasize on appearance, clothing and fashion. Social media can be considered as the primary communication means especially among adolescents and preadolescence; this may function as a contemporary channel of exerting social pressure and affecting their

attitudes and behaviors towards their body and appearance (Latzer et al., 2015). Perhaps the underlying reason for many women that request cosmetic procedures is the pressure exerted by media to change their appearance to look better, and not the fact that they actually want to change their appearance. So media education (wise consumption of media and evaluating messages) can be suggested in order to reduce negative influence of the harmful messages on media and sociocultural pressures (Hogan & Strasburger, 2008; Sicilia et al., 2019; Keery et al., 2004). Social media could also be targeted in prevention programs by limiting appearance-related content (Bair et al., 2012), which reinforce internalizing unrealistic beauty ideals in everyday conversations, encouraging people to the responsible use of social media (Mabe et al., 2014) or reducing the use of photo-enhancing technology that promote unrealistic ideals (Kleemans et al., 2018). Raising social awareness on the risk, surgery failures and various physical, psychological, and social side effects of cosmetic procedures in different media, may prevent unnecessary cosmetic procedures, delay the decisions to an older age or motivate individuals to make a more prudent and conscious decision with sufficient research or consideration (Kim & Cho Chung, 2018).

#### **5.4 Limitations and Suggestions for Future Research**

The present study offers a significant support for the Tripartite Influence Model of body image in cosmetic surgery context and also can advances the literature and understanding of the role of media and social media on body image and intention to undergo cosmetic procedures in Iran. However, some limitations were recognized during the research process that should be considered in the interpretation of the findings or should be improved through future research.

One important point that should be considered is that the required data for this study was gathered through the Covid-19 pandemic in 2020. Since people's preferences and behaviors may be affected by the pandemic period and lockdown, so we should be cautious in evaluating the results and generalization of the results to other times. It is worth mentioning that the participants were requested to consider their preferences and behaviors in a normal routine life, not exactly their lifestyle during the lockdown.

Another important point is that the Tripartite Influence Model was not fully recruited in this study to examine all risk factors of intention to undergo cosmetic

procedures. As mentioned above, the original model includes three sources of sociocultural influences (i.e. family, peer, and media), and two mechanisms (i.e. internalization and social comparison). However, family and peers as sociocultural influences as well as social comparison as a mediator were not included in our research model in order to avoid the complexity in analyses and focus on the role of mass media and social media. Therefore future work should include measurement and examination of this variable in order to fulfill the understanding of more risk factors of negative body image and intention to undergo cosmetic procedures.

Another limitation of this study is related to the sample and sampling method. The convenience sampling method was used instead of random sampling in this study, because of its easy availability and accessibility to participants. So our research sample cannot be regarded as a random sample of Iranian women and the generalization of the results will be limited.

The inclusion criteria to be included in our research sample was age more than 18, which includes different generations with different preferences and lifestyles. Since it is probable to find differences in risk factors of negative body image and intention to undergo cosmetic procedures among different generations, future research is suggested to examine whether these findings can be replicated among different groups of females like adolescents and preadolescents and older women or not.

This study focused only on women as the research sample. Although it is believed that women are more likely to be exposed to peers and the media pressure to have perfect bodies, there are pieces of evidence demonstrating that men also feel sociocultural pressure to achieve socially defined standards of beauty like masculinity (Sicilia et al., 2019). Although less attention has been paid to male body image, this has been gradually changing during recent years. Evidence shows that recently, Iranian men have been pressured to improve their body through cosmetic procedures; sociocultural pressures such as comparing men with Hollywood actors or perceived importance of appearance in finding a good job and dating are forcing them to conform to media defined standards of beauty (Zare et al., 2014). So future research is suggested to evaluate the same model for men or compare a sample of men and a sample of women in order to understand potential differences between them.

Also it is good to mention that this study was not focused on any particular cosmetic procedure. Although we examined cosmetic surgical and non-surgical procedures through two separate models, yet we believe that it is possible to find different risk factors for different kinds of cosmetic procedures, according to the risks level, recovery time or importance of body parts related to a specific cosmetic procedure. Therefore, future studies are suggested to control for a particular cosmetic procedure to clearly understand the factors that influence intention to engage in a cosmetic procedure (Sood et al., 2017).

The findings suggested that participants, who have experienced cosmetic procedures in the past, are more intended to have more cosmetic procedures in the future. These results seem interesting and deserve more research to examine whether there is a significant relationship between having cosmetic procedures in the past and intention to have cosmetic procedure in the future, or not. Especially in case of non-surgical procedures, regarding the fact that the higher level of intention for non-surgical cosmetic procedures can be stem from the fact that cosmetic non-surgical procedures are required to be repeated after a few months, so more research is needed to examine this potential relationship.

Furthermore the findings of the present study may encourage future studies on the effect of different social media influences on negative body image and intention to undergo cosmetic procedures. One of the most important limitations in this study was assessing social media influence through a modified scale of mass media influence. However, we believe that some of the different features of social media like interactivity, allowing users to create a personal profile and upload their own content and get feedback (e.g. likes and comments) from other, more selective content, presence, and availability of peers images (not only celebrities), could impact people's body image in a different way from mass media (Mingoia et al., 2017). Therefore future researches are suggested to assess social media influence to undergo cosmetic procedures through different and newly designed scales, in order to fulfill understanding all aspects of social media influence. Likewise, our findings can contribute to future studies regarding the development of a validated questionnaire that assesses the social media influence, with consideration of its differences from mass media.



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## APPENDICES

### Appendix 1: Questionnaire (English)

**Dear Participants**

The present study is aimed at examining the role of mass media and social media influences on women's intention to undergo cosmetic surgical and non-surgical procedures. The research is done as a doctoral dissertation and the data will only be used for scientific purposes. The questionnaires will be evaluated collectively and the names of the participants are not required.

Your accurate answers to all of the items are very important for the study to give appropriate results. Thank you very much for your contribution and the time you spared.

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<b>A. Please answer the following 9 items related to Appearance Investment.</b>		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1	Before going out in public, I always notice how I look.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	I check my appearance on the mirror whenever I can.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	Before going out, I usually spend a lot of time getting ready.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	It is important that I always look good.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	I use cosmetic and grooming products.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	I am self-conscious if my grooming isn't right.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	I care what people think about my appearance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	I think about my appearance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	I am always trying to improve my physical appearance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>B. Please answer the following 5 items related to Body Dissatisfaction.</b>						

10	I like my looks just the way they are (R).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11	Most people would consider me good looking (R).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12	I dislike my physique.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13	I am physically unattractive.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14	There are some parts of my appearance that I am not satisfied with.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C. Please answer the following 3 items about mass media pressure.</b>						
15	I've felt pressure from TV or magazines to look pretty.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16	I've felt pressure from TV or magazines to have a perfect body.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17	I've felt pressure from TV or magazines to change my appearance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>D. Please answer the following 3 items about social media pressure.</b>						
18	I've felt pressure from social media (Instagram, Facebook, YouTube etc) to look pretty.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19	I've felt pressure from social media (Instagram, Facebook, YouTube etc) to have a perfect body.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20	I've felt pressure from social media (Instagram, Facebook, YouTube etc) to change my appearance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>E. Please answer the following 3 items about the role of mass media as a source of information.</b>						
21	TV programs and magazine articles are important sources of information about fashion and "being attractive".	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22	TV commercials and magazine advertisements are important sources of information about fashion and "being attractive".	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23	Movie stars, models and famous people on TV and magazine are an important source of information about fashion and "being attractive".	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>F. Please answer the following 3 items about the role of social media as a source of information.</b>						
24	Social media is an important sources of information about fashion and "being attractive".	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25	Commercials and advertisements in social media are important sources of information about fashion and "being attractive".	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

26	Influencers, models and famous people on social media are an important source of information about fashion and “being attractive”.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>G. Please answer following 3 items related to internalization of media promoted beauty ideals.</b>						
27	I would like my appearance to look like the famous people who are on TV or magazines.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28	I would like my appearance to look like the famous people, influencers and models in social media.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29	I try to look like the people who are on TV or models appear in magazines.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30	I try to look like the influencers and models in social media.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
31	I compare my body to the bodies of the TV stars or magazine models.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
32	I compare my body to the bodies of the influencers and models in social media.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
33	<p>Here are some examples of different types of cosmetic surgical procedures:</p> <ol style="list-style-type: none"> <li>1. Face surgeries (Brow Lift, Eyelid Surgery, Rhinoplasty, Facelift, Facial Bone Contouring, Fat Grafting-Face)</li> <li>2. Head and neck surgeries (e.g. Ear Surgery, Neck lift, Hair Transplantation)</li> <li>3. Breast surgeries (e.g. Breast Augmentation (Saline, Silicone, Fat Transfer), Breast Reduction, Breast Lift)</li> <li>4. Body surgeries (Abdominoplasty, Buttock Augmentation (Implants Only, Fat Transfer), Buttock lift, Liposuction, Body Lift, Upper Arm Lift, Labiaplasty)</li> </ol> <p>Have you ever had any kind of cosmetic surgical procedures?      <input type="radio"/> Yes      <input type="radio"/> No</p> <p>If it does not cause any inconvenience for you, could you share which operation you had please?</p> <p>.....</p>					
<b>H. Please answer the following items about intention to have cosmetic surgery.</b>		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
34	In the future, I could end up having some kind of cosmetic surgery.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
35	If I could have a surgical procedure in a low price, I would consider trying it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
36	If I knew there would be no negative side effects or pain, I would like to try cosmetic surgery.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
37	I have sometimes thought about having cosmetic surgery.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

38	I would never have any kind of cosmetic surgery (R).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
39	If I feel I need cosmetic surgical procedures in the future, I will have it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
40	<p>Here are some examples of different types of cosmetic non-surgical procedures:</p> <ol style="list-style-type: none"> <li>1. Botox injection (forehead, frown, neck lines and wrinkles etc.)</li> <li>2. Filling and oil injection (lips, cheeks, chin, nose edges, bags and pits around the eyes, acne scars, etc.)</li> <li>3. Facial Rejuvenation (Chemical Peel, Dermabrasion, Microdermabrasion, Non-surgical Skin Tightening)</li> <li>4. Other procedures (Cellulite Treatment, Laser Hair Removal, Nonsurgical Fat Reduction, Tattoo Removal, Treatment of Leg Veins)</li> </ol> <p>Have you ever had any kind of cosmetic non-surgical procedures?      <input type="radio"/> Yes      <input type="radio"/> No</p> <p>If it does not cause any inconvenience for you, could you share which procedure you had please?  .....</p>					
<b>I. Please answer the following items about intention to have cosmetic procedures.</b>		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
41	In the future, I could end up having some kind of cosmetic non-surgical procedure.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
42	If I could have a non-surgical procedure in a low price, I would consider trying it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
43	If I knew there would be no negative side effects or pain, I would like to try non-surgical procedure.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
44	I have sometimes thought about having cosmetic non-surgical procedure.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
45	I would never have any kind of cosmetic non-surgical procedure (R).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
46	If I feel I need cosmetic non-surgical procedures in the future, I will have it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>J. Media Usage</b>		Never	Rarely	Occasionally	Frequently	Very Frequently
47	How often do you watch TV (including internet TV)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
48	How often do you read a newspaper / magazine (print or online)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

49	How often do you use social media?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
50	How often do you follow TV programs (including internet TV) related to beauty and aesthetics? (the program may not only be directly related to beauty / aesthetics, but include these topics as well)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
51	How often do you follow beauty and aesthetics subjects in printed / online newspapers and magazines?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
52	How often do you follow beauty and aesthetic issues on social media?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
53	Could you share the name of any specific pages about beauty and aesthetic that you follow in YouTube, Instagram, Facebook etc. please?					
<b>K. Demographic Information</b>						
54	Age:	<input type="radio"/> Under 18	<input type="radio"/> 18-24	<input type="radio"/> 25-34	<input type="radio"/> 35-44	<input type="radio"/> 45-54
		<input type="radio"/> 35-44	<input type="radio"/> 45-54	<input type="radio"/> Above 55		
55	Marital Status:	<input type="radio"/> Single	<input type="radio"/> Partnership	<input type="radio"/> Married	<input type="radio"/> Widowed	<input type="radio"/> Divorced
		<input type="radio"/> other (specify) : .....				
56	Educational level:	<input type="radio"/> Primary/ Secondary Education	<input type="radio"/> High school Diploma	<input type="radio"/> University	<input type="radio"/> Master's/PhD	
57	Household income:	<input type="radio"/> Under 20 million IRR	<input type="radio"/> 20-39 million IRR	<input type="radio"/> 40-59 million IRR	<input type="radio"/> 60-79 million IRR	<input type="radio"/> 80-99 million IRR
		<input type="radio"/> 60-79 million IRR	<input type="radio"/> 80-99 million IRR	<input type="radio"/> Above 100 million IRR		
58	Employment Status:	<input type="radio"/> Unemployed	<input type="radio"/> Retired	<input type="radio"/> Student	<input type="radio"/> Public Sector	<input type="radio"/> Private Sector
		<input type="radio"/> Other	<input type="radio"/> Self-employed			
59	What is your job? .....					

## Appendix 2: Questionnaire (Persian)

### شرکت کننده عزیز

این پرسشنامه با هدف انجام پایان نامه ای در مقطع دکترا با عنوان «بررسی تأثیر رسانه های جمعی و اجتماعی، روی قصد انجام عملهای زیبایی تهاجمی و غیر تهاجمی» طراحی شده است. داده ها و نتایج این پژوهش، فقط و فقط در راستای اهداف علمی مورد استفاده قرار گرفته و در اختیار هیچ فرد، گروه و یا سازمانی قرار داده نخواهد شد. پاسخ های شما، به صورت گروهی تحلیل می شوند و نیازی به درج نام شرکت کننده نیست.

با توجه به اینکه شیوع کرونا احتمالاً احساسات و افکار همه ما را تحت تأثیر قرار داده است، از شما می خواهیم سؤالات پرسشنامه را بر اساس نگرش ها و رفتارهای همیشگی خود (نه در دوران شیوع کرونا) پاسخ دهید.

پاسخ های دقیق و صادقانه شما، نقش مهمی در کیفیت نتایج پژوهش خواهد داشت. از همکاری شما و زمانی که در اختیارمان می گذارید بسیار سپاسگزاریم.

پروفسور دکتر Sevgi Ayşe ÖZTÜRK  
توتونچی تبریزی  
دانشگاه آنادولو، دانشکده علوم اقتصادی و اداری  
دانشجوی دکترای بازاریابی، دانشگاه آنادولو

کاملاً موافقم	موافقم	نه موافق نه مخالف	مخالفم	کاملاً مخالفم	الف. در زیر گزاره هایی در ارتباط با "اهمیت تصویر بدن" آورده شده است. لطفاً مناسب ترین پاسخ را برای هر یک از عبارات علامت بزنید:
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	1 قبل از ورود به جمع مردم، همیشه به ظاهرم دقت می کنم.
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	2 هر زمان که بتوانم، ظاهرم را در آینه بررسی می کنم.
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	3 معمولاً قبل از بیرون رفتن، وقت زیادی را برای آماده شدن صرف می کنم.
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	4 برای من مهم است که همیشه ظاهرم خوب باشد.
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	5 من از محصولات آرایشی بهداشتی بسیار زیادی استفاده می کنم.
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	6 اگر مرتب و آراسته نباشم، احساس خوبی ندارم.

○ ○ ○ ○ ○	اینکه مردم درباره ظاهر من چه فکر می کنند، برایم مهم است.	7
○ ○ ○ ○ ○	به ظاهرم خیلی فکر می کنم.	8
○ ○ ○ ○ ○	همیشه سعی می کنم ظاهر فیزیکی ام را بهبود دهم.	9
ب. لطفاً مناسب ترین گزینه را برای هر یک از گزاره های زیر که مربوط به «رضایت از تصویر بدن» هستند، علامت بزنید:		
○ ○ ○ ○ ○	ظاهرم را به همین شکلی که هست، دوست دارم.	10
○ ○ ○ ○ ○	خیلی ها فکر می کنند که من زیبا هستم. ظاهر خوبی دارم.	11
○ ○ ○ ○ ○	ظاهر فیزیکی ام را دوست ندارم.	12
○ ○ ○ ○ ○	من از لحاظ جسمی جذاب نیستم.	13
○ ○ ○ ○ ○	از بعضی از قسمت های بدنم رضایت ندارم.	14
پ. برای هر یک از گزاره های زیر در مورد «تأثیر رسانه های جمعی»، مناسب ترین گزینه برای شما کدام است:		
○ ○ ○ ○ ○	از طرف رسانه های جمعی (مانند تلویزیون، روزنامه و مجلات) تحت فشارم تا ظاهر زیبایی داشته باشم.	15
○ ○ ○ ○ ○	از طرف رسانه های جمعی (مانند تلویزیون، روزنامه و مجلات) تحت فشارم تا ظاهر بی نقصی داشته باشم.	16
○ ○ ○ ○ ○	از طرف رسانه های جمعی (مانند تلویزیون، روزنامه و مجلات) تحت فشارم تا همواره ظاهرم را بهتر و زیباتر کنم.	17
ت. مناسب ترین گزینه برای شما کدام است:		
○ ○ ○ ○ ○	از طرف رسانه های اجتماعی (مانند فیسبوک، اینستاگرام، یوتیوب و ...) تحت فشارم تا ظاهر زیبایی داشته باشم.	18
○ ○ ○ ○ ○	از طرف رسانه های اجتماعی (مانند فیسبوک، اینستاگرام، یوتیوب و ...) تحت فشارم تا ظاهر بی نقصی داشته باشم.	19
○ ○ ○ ○ ○	از طرف رسانه های اجتماعی (مانند فیسبوک، اینستاگرام، یوتیوب و ...) تحت فشارم تا همواره ظاهرم را بهتر و زیباتر کنم.	20
ث. سه گویه ی زیر در مورد نقش رسانه های جمعی مانند تلویزیون، روزنامه و مجلات به عنوان یک منبع اطلاعاتی است. لطفاً مناسب ترین گزینه از نظر خودتان را علامت گذاری بزنید:		
○ ○ ○ ○ ○	برنامه های تلویزیونی و مقالات روزنامه ها و مجلات، منبع اطلاعاتی مهمی در مورد مسائل زیبایی به شمار می آیند.	21
○ ○ ○ ○ ○	تبلیغات موجود در تلویزیون، روزنامه و مجلات، منبع اطلاعاتی مهمی در مورد مسائل زیبایی به شمار می آیند.	22

○ ○ ○ ○ ○	<p>23 بازگیران، مجریان و مدلهای فعال در تلویزیون، مجلات و روزنامه ها منبع اطلاعاتی مهمی در مورد مسائل زیبایی به شمار می آیند.</p>
<p>ج. سه گویه ی زیر در مورد نقش رسانه های اجتماعی مانند فیسبوک، اینستاگرام، یوتیوب و ... به عنوان یک منبع اطلاعاتی است. لطفاً مناسب ترین گزینه از نظر خودتان را علامت گذاری بزنید:</p>	
○ ○ ○ ○ ○	<p>24 عکس، فیلم و دیگر محتواهای به اشتراک گذاشته شده در رسانه های اجتماعی (اینستاگرام ، فیس بوک ، یوتیوب و غیره) منبع اطلاعاتی مهمی در مورد مسائل زیبایی به شمار می آیند.</p>
○ ○ ○ ○ ○	<p>25 افراد مشهور، اینفلوئنسرها، بلاگرهای فعال در رسانه های اجتماعی (اینستاگرام ، فیس بوک ، یوتیوب و ...) منبع اطلاعاتی مهمی در مورد مسائل زیبایی به شمار می آیند.</p>
○ ○ ○ ○ ○	<p>26 تبلیغات موجود در رسانه های اجتماعی (اینستاگرام ، فیس بوک ، یوتیوب و غیره) منبع اطلاعاتی مهمی در مورد مسائل زیبایی به شمار می آیند.</p>
<p>ج. لطفاً مناسب ترین گزینه را برای هر گزاره زیر در مورد نقش درونی سازی رسانه های جمعی، انتخاب کنید:</p>	
○ ○ ○ ○ ○	<p>27 دوست دارم ظاهر فیزیکی ام شبیه افرادی باشد که در تلویزیون، روزنامه و مجلات (مانند بازگیران، مجریان و مدلها) می بینم.</p>
○ ○ ○ ○ ○	<p>28 دوست دارم ظاهر فیزیکی ام شبیه افراد مشهور در رسانه های اجتماعی (اینستاگرام ، فیس بوک ، یوتیوب و غیره) باشد.</p>
○ ○ ○ ○ ○	<p>29 سعی میکنم ظاهر فیزیکی ام، شبیه بازگیران، مجریان و مدلهای فعال در تلویزیون، روزنامه و مجلات باشد.</p>
○ ○ ○ ○ ○	<p>30 سعی میکنم ظاهر فیزیکی ام شبیه افراد مشهور در رسانه های اجتماعی (اینستاگرام ، فیس بوک ، یوتیوب و غیره) باشد.</p>
○ ○ ○ ○ ○	<p>31 ظاهر فیزیکی ام را با بازگیران، مجریان و مدلهای فعال در تلویزیون، روزنامه و مجلات مقایسه می کنم.</p>
○ ○ ○ ○ ○	<p>32 ظاهر فیزیکی ام را با افراد مشهور در رسانه های اجتماعی (اینستاگرام ، فیس بوک ، یوتیوب و غیره) مقایسه می کنم.</p>
<p>33 در زیر نمونه هایی از عملهای زیبایی تهاجمی (همراه با جراحی) آورده شده است:</p> <ol style="list-style-type: none"> <li>1. جراحی های صورت (لیفت ابرو یا پلک، لیفت صورت، عمل بینی، غنغب، چانه و غیره)</li> <li>2. جراحی های سر و گردن (عمل زیبایی گوش، لیفت گردن، کاشت مو و غیره)</li> <li>3. جراحی زیبایی سینه (تغییر سایز سینه، لیفت سینه، پروتز، تزریق و غیره)</li> <li>4. جراحی های مربوط به دیگر قسمتهای بدن (پیکر تراشی، فرم دهی شکم و پهلو، فرم دهی باسن، لیپوساکشن، لیفت دست و پا، لابیپلاستی و غیره)</li> </ol>	

<p>آیا تاکنون هیچ یک از جراحیهای بالا را انجام داده اید؟  بله <input type="radio"/> خیر <input type="radio"/></p> <p>اگر از نظر شما ایرادی ندارد، مشخصاً نوع عمل/عملهای جراحی زیبایی که تا بحال انجام داده اید را با ما به اشتراک بگذارید:  .....</p>					
کاملاً موافقم	موافقم	نه موافق نه مخالف	مخالفم	کاملاً مخالفم	<p>ح. لطفاً برای هر گزاره زیر، مناسب ترین گزینه را در مورد قصد خود برای انجام جراحی زیبایی در آینده انتخاب کنید:</p>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	34. قصد دارم در آینده جراحی زیبایی انجام دهم.
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	35. اگر قیمت جراحی زیبایی خیلی پایین باشد، حتماً انجام می دهم.
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	36. اگر جراحی زیبایی هیچ گونه عوارض جانبی و دردی نداشته باشد، می خواهم آن را امتحان کنم.
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	37. مواقعی پیش آمده که فکر کرده ام یک جراحی زیبایی انجام دهم.
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	38. من هرگز جراحی زیبایی نمی کنم.
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	39. اگر در آینده احساس کنم به جراحی زیبایی احتیاج دارم، انجام می دهم.
<p>40. در زیر نمونه هایی از عملهای زیبایی غیرتهاجمی (بدون جراحی) آورده شده است:</p> <ol style="list-style-type: none"> <li>1. تزریق بوتاکس (پیشانی، خط اخم و خنده، چین و چروک گردن و غیره)</li> <li>2. تزریق ژل و چربی (لب، گونه، چانه، بینی، اطراف چشم، جای زخم ها یا آکنه و غیره)</li> <li>3. جوانسازی پوست (جوان سازی با لیزر، میکرودرم ابریژن، لایه برداری شیمیایی یا لایه برداری با لیزر و غیره)</li> <li>4. سایر فرایندها (درمان سلولیت، لیزر موهای زائد، پاک کردن تاتو، زیبایی رگ های واریسی و غیره)</li> </ol> <p>آیا تاکنون هیچ یک از عملهای زیبایی غیرتهاجمی بالا را انجام داده اید؟  بله <input type="radio"/> خیر <input type="radio"/></p> <p>اگر از نظر شما ایرادی ندارد، مشخصاً نوع عمل/عملهای زیبایی غیرتهاجمی که تا بحال انجام داده اید را با ما به اشتراک بگذارید:  .....</p>					
کاملاً موافقم	موافقم	نه موافق نه مخالف	مخالفم	کاملاً مخالفم	<p>خ. لطفاً برای هر گزاره زیر، مناسب ترین گزینه را در مورد قصد خود برای انجام عملهای غیرتهاجمی زیبایی در آینده انتخاب کنید:</p>

○	○	○	○	○	41	قصد دارم در آینده عمل زیبایی غیرتهاجمی انجام دهم.
○	○	○	○	○	42	اگر قیمت عمل زیبایی غیرتهاجمی خیلی پایین باشد، حتما انجام می دهم.
○	○	○	○	○	43	اگر عمل زیبایی غیرتهاجمی هیچ گونه عوارض جانبی و دردی نداشته باشد، می خواهم آن را امتحان کنم.
○	○	○	○	○	44	موقعی پیش آمده که فکر کرده ام یک عمل زیبایی غیرتهاجمی انجام دهم.
○	○	○	○	○	45	من هرگز عمل زیبایی غیرتهاجمی نمی کنم.
○	○	○	○	○	46	اگر در آینده احساس کنم به جراحی زیبایی غیرتهاجمی احتیاج دارم، انجام می دهم.
خیلی کم	کم	متوسط	زیاد	خیلی زیاد	<b>د. لطفاً به سؤالات زیر در مورد میزان استفاده شما از رسانه ها، پاسخ دهید؟</b>	
○	○	○	○	○	47	معمولاً چقدر زمان صرف تماشای تلویزیون (شامل تلویزیون ملی، شبکه های ماهواره ای و تلویزیون اینترنتی مانند نتفلیکس) می کنید؟
○	○	○	○	○	48	آیا روزنامه و یا مجله (چاپی یا آنلاین) می خوانید؟
○	○	○	○	○	49	معمولاً چقدر زمان صرف رسانه های اجتماعی (اینستاگرام، فیس بوک، یوتیوب و غیره) می کنید؟
○	○	○	○	○	50	چقدر برنامه های تلویزیونی (شامل تلویزیون ملی، شبکه های ماهواره ای و تلویزیون اینترنتی) را که شامل مسائل زیبایی است، دنبال می کنید؟ (لازم نیست برنامه مستقیماً مربوط به مسایل زیبایی باشد بلکه کافی است این مباحث را نیز شامل شود)
○	○	○	○	○	51	چقدر در روزنامه ها و مجلات (چاپی یا آنلاین) موضوعات زیبایی را دنبال می کنید؟
○	○	○	○	○	52	چقدر در رسانه های اجتماعی (اینستاگرام، فیس بوک، یوتیوب و غیره) موضوعات و مسائل مربوط به زیبایی را دنبال می کنید؟
53 اگر صفحه یا صفحات خاصی در یوتیوب، اینستاگرام، فیس بوک و غیره دنبال میکنید که در مورد مسائل زیبایی است، در صورت امکان نام آنها را با ما به اشتراک بگذارید: .....						
<b>ذ. اطلاعات دموگرافیک</b>						
					54	سن؟
○ زیر 18 سال		○ 18-24		○ 25-34		○ بالای 55
○ مجرد		○ رابطه		○ متاهل		
					55	وضعیت تاهل؟
○ مجرد		○ رابطه		○ متاهل		
						○ دوستی

<input type="radio"/> بیوه <input type="radio"/> مطلقه <input type="radio"/> دیگر.....	
<input type="radio"/> فوق دیپلم یا لیسانس <input type="radio"/> دیپلم دبیرستان <input type="radio"/> تحصیلات ابتدایی یا راهنمایی <input type="radio"/> ارشد یا دکترا	56 سطح تحصیلات؟
<input type="radio"/> 59-40 میلیون ریال <input type="radio"/> بیش از 100 میلیون ریال <input type="radio"/> 39-20 میلیون ریال <input type="radio"/> 99-80 میلیون ریال <input type="radio"/> زیر 20 میلیون ریال <input type="radio"/> 79-60 میلیون ریال	57 درآمد ماهیانه منزل؟
<input type="radio"/> دانشجو <input type="radio"/> شغل آزاد <input type="radio"/> بازنشسته <input type="radio"/> شغل خصوصی <input type="radio"/> بیکار <input type="radio"/> شغل دولتی <input type="radio"/> دیگر	58 وضعیت اشتغال؟
..... شغل شما چیست؟	59