

Moderators and Mediators in the Tendency toward Cosmetic Surgery: Media Influences, Appearance Perfectionism, and Appearance Investment

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This study examines the relationships among sociocultural attitudes toward appearance, perfect physical appearance, appearance investment and the tendency for cosmetic surgery. Data was collected from 631 students (male and female), aged between 18 and 49 years ($M=21.83$, $SD=4.09$). Results indicated that all of the predictors examined correlated with positive attitudes toward cosmetic surgery. Furthermore, worry about imperfection as one of perfect physical appearance subscales moderated the relation between sociocultural attitudes toward appearance and appearance investment. Likewise, sociocultural attitudes toward appearance had a direct and indirect effect (via appearance investment) on the tendency for cosmetic surgery. That is, appearance investment partially mediated the association between media influences and attitudes toward cosmetic surgery. These findings suggest that a greater perfectionist tendency and a greater psychological investment in physical appearance among mass media messages about beauty predict more favorable attitudes toward cosmetic surgery.

Keywords: appearance investment, cosmetic surgery, media influences, perfectionism

Over the past decade, there has been a dramatic growth of

cosmetic surgery in the world. According to statistics released by the American Society of Plastic Surgeons (ASPS), there were 14.6 million cosmetic plastic surgery procedures, including minimally invasive and surgical, in the United States in 2012 which was up 5 percent since 2011 (ASPS, 2013). Unfortunately, there is no official statistic on this in Iran but according to journalistic statistics Iran has become one of the world's leading centers for cosmetic surgery. This increasing rate highlights the identification of underlying factors affecting the desire for cosmetic surgery. The present study aimed to examine some of these factors. By considering mediator and moderator variables it has tried to cover more expanded areas of appearance related issues and linked behaviors.

Previous research suggests that body dissatisfaction can motivate individuals to pursue cosmetic surgery (Henderson-King & Henderson-King, 2005; Sarwer, 2002; Sarwer et al., 2005). The term “body dissatisfaction” is usually used to explain the tendency to enhance the appearance and often occurs among individuals who compare themselves with ideal images presented in the media. In fact, the most supported explanations for increases in body dissatisfaction are derived from sociocultural models that identify social factors (e.g., media, friends, family) as the motivation behind an individual's tendency to follow unrealistic appearance standards and developing body image disturbances (Cafri, Yamamiya, Brannick, & Thompson, 2005; Neziroglu, Khemlani-Patel, Veale, 2008). Communication theories such as cultivation theory, social learning theory and social cognitive theory suggest that as individuals are repeatedly exposed to media content, they begin to accept the portrayals as part of reality (Grabe, S., Ward, L.M., & Hyde, J. S., 2008). It is noteworthy that due to Islamic culture the women's appearance has the least

role in the Iranian mass media and the presented ideal image of women differs completely from the one in western culture in such a way that it gives no concept of women's body image at all. Even though accessibility to satellite programs is highly prohibited watching western movies and series is an undeniable part of most Iranians' daily life. Furthermore, magazine advertisements of the latest advances in cosmetic surgical procedures are an effective way to increase awareness and information about such procedures (Atiyeh, Rubeiz, & Hayek, 2008). Illustrating "before and after" pictures of cosmetic surgery results can be seen as a positive reinforcement for those who have a tendency forenhancement behavior.

Normalization is one process that may account for the media's effect. According to cultivation theory (Gerbner, Gross, Morgan, Signorielli, & Shanahan, 2002), heavy media exposure, particularly television, to certain events, values, and people gradually shapes the individual's perception of societal expectation, often without awareness. Therefore, continued exposure and internalization of specific messages about physical appearance in the media may gradually modify attitudes which bolden the role of mass media as one of the key factors increasing body dissatisfaction and the tendency toward self-enhancement through cosmetic surgery (Cash, 2011; Farshidfar 2013; Markey & Markey, 2009, 2010; Salehahmadi, Rafie, 2012; Slevic, & Tiggemann, 2010; Swami et al., 2008, 2009; Tavassoli & Modiri, 2012). While this is in contrast to the results of Brown et al. (2007) who reported no effect of media exposure on the likelihood of having cosmetic surgery, it implies that not all individuals get affected by mass media and develop body dissatisfaction. To fully understand how and why beauty ideals provided by media impact specific individuals, it is important to take other perspectives as well which highlight

the effects of mediators and moderators in this area.

There is also evidence that perfectionism with body dissatisfaction and the desire to have cosmetic surgery are related (Buhlmann, Etcoff, & Wilhelm, 2008; Sherry, Hewitt, Lee-Baggley, Flett, & Besser, 2004; Wade, & Tiggemann, 2013). Although perfectionism as a trait, it can be an adaptive one (e.g. intrinsic drive for improvement), it is more often regarded as maladaptive. Perfectionists' high expectations along with intense self-criticism and fears of showing imperfection and others' negative evaluations may lead them to invest their self-worth in an unrealistic ideal physical appearance and risk feeling dissatisfaction (Cash, 2011), which predispose them to consider cosmetic surgery (Hewitt, Sherry, Flett, & Shick, 2003; Sherry, Hewitt, & Lee-Baggley, 2004). The belief that perfectionism influences individuals to have a tendency for cosmetic surgery stems partly from perfectionists' concerns about their physical appearance. Evidence that perfectionism is linked with body dysmorphic (Buhlmann, Etcoff, & Wilhelm, 2008), social physique anxiety (Haase, Prapavessis, & Glynn Owens, 2002) increased disordered eating habits (Hewitt, Flett, & Ediger, 1995) and excessive exercise (Hall, Hill, Appleton, & Kozub, 2009) suggests that perfectionists are usually obsessed about their physical appearance and often attempt to perfect themselves. But the extent to which an individual's attention, thoughts, and actions focus on their looks and define their sense of self or the importance of appearance to their sense of self-worth is one of the basic components of body image (Cash, 2002, 2011).

Body image is a multidimensional construct consisting of cognitive, behavioral, and emotional elements which can be categorized as appearance evaluation and appearance investment, which involve self-schema (Cash, 2002). Markus

(1977) described an individual's beliefs and cognitive generalization about one's self derived from past experiences as self-schema. Body image schemas denote one's core beliefs about the meaning and importance of appearance in one's life and self-worth. Sarwer (2002) implies that people with an elevated body image valence (i.e., the degree to which body image is important to one's self-esteem) believe that much of their self-esteem depends on their body image and thus may be more prone to pursue appearance-enhancement behaviors to improve their appearance. In a study investigating factors that influence attitudes toward cosmetic surgery, media and appearance investment were found to be predictors of social motivation and actual consideration of cosmetic surgery (Slevec, & Tiggemann, 2010).

The concept of the interaction between socio-cultural attitudes toward appearance as media influences, physical perfectionism, appearance investment and tendency for cosmetic surgery can be enlightened by social cognitive theory. In Albert Bandura's social cognitive theory (2001), termed triadic reciprocal causation, there is a bi-directional interaction among society, personal factors and an individual's behavior. Furthermore, from the cognitive-behavioral perspective (Cash, 2002, 2011), cultural messages about appearance standards or expectations through mass media, as cultural socialization, social interactions and communications, as interpersonal experiences and personality factors among physical characteristics are developmental variables that form basic body image perceptions and attitudes (e.g., body image evaluation and investment).

This study examines the socio-cultural attitudes toward appearance in a sample of Iranian students. The study has three goals: (a) to verify the possible relationships among socio-

cultural attitudes toward appearance, physical appearance perfectionism, appearance investment and tendency for cosmetic surgery; (b) to examine whether physical appearance perfectionism moderates the relationship between online socio-cultural attitudes toward appearance and appearance investment; (c) whether appearance investment mediates the relationship between socio-cultural attitudes toward appearance and the tendency for cosmetic surgery.

Hypotheses

In this study, it was hypothesized that physical appearance perfectionism (with two subscales including worry about imperfection and hope for perfection) moderates the relationship between socio-cultural attitudes toward appearance and appearance investment. We also expected that appearance investment would have a mediating role between socio-cultural attitudes toward appearance and a tendency for cosmetic surgery.

Method

Participants

Participants were recruited from among Islamic Azad University students ($n=650$) of the North, South, East, West, and Central Medical Sciences and Dentistry branches of Tehran (Iran) with different degree levels during the first semester of the academic year 2013-14. From 638 returned questionnaires 631 (98.9%) were eligible to be used in the analysis. The sample included 400 (63.4%) women and 231 (36.6%) men between ages 18 to 49 ($M=21.83$, $SD=4.09$). 11.7% reported one previous cosmetic surgery, 1.7% reported two or more previous cosmetic surgeries.

Assessments and measures

One stage cluster sampling was used to select the universities. An approval was obtained from the office of every branch's research and before gathering data each university administration was informed and the necessary consent was acquired. Participants were recruited by random selection and presented with a series of paper-based questionnaires regarding demographics and measures assessing media influences, appearance perfectionism, appearance investment and attitudes toward cosmetic surgery. The aim of the study was explained to them and it was also clarified that "cosmetic surgery" refers to a range of minimally invasive (e.g., Botox injections, laser skin resurfacing and hair implantation) to more invasive procedures like rhinoplasty and liposuction. All 650 sets of questionnaires were coded and the participants who completed and returned the questionnaires could receive a printed slip of an email address provided by the researcher to follow up the test result anonymously by sending their own code. They were also free to quit at any time. All questionnaires were translated from English into Persian. In order to achieve a reliable translation, first the questionnaires were translated by the support of an English lecturer to Persian and then they were translated back into English independently. Second, the final translation was discussed with some of the psychology faculty members of Islamic Azad University who were requested to evaluate all items on a 7-point scale for: a) scientific acceptance b) necessity and c) simplicity and clarity. The necessary changes were made to the questionnaire in line with applicable recommended feedback. Third, a pilot study was conducted on 30 students of Islamic Azad University who were of similar ability and background to that of the survey target population. This was done to obtain an assessment of the validity of the questions, as

well as the possible reliability of the data that would be collected. Although, coefficient alpha was widely used to estimate the reliability of the questionnaires, research indicates that coefficient alpha shows a negatively biased estimate of the theoretical reliability for Likert type rating response scales (Zumbo, Gadermann, Zeisser, 2007). Thus, ordinal coefficient theta was used to compute the reliability of the questionnaires.

Socio-cultural Attitudes toward Appearance Questionnaire-3 (SATAQ-3). Participants' perceptions of media messages about appearance issues were assessed using a 30-item in Persian translated of the Sociocultural Attitudes toward Appearance Questionnaire-3 (SATAQ3, Thompson, van den Berg, Roehrig, Guarda, & Heinberg, 2004). The questionnaire includes four subscales: the nine-item Internalization-General subscale (e.g., "I compare my body to the bodies of TV and movie stars") measures internalization of the ideal body as presented by the media; the five-item internalization-athlete subscale measures the internalization of the athletic body ideal (e.g., "I wish I looked as athletic as sports stars"); the nine-item information subscale measures the perceived importance of the media in providing information about the ideal body (e.g., "Movies are an important source of information about fashion and 'being attractive'"); and the seven-item pressures subscale measures perceived pressures from the media to follow body ideals (e.g., "I've felt pressure from TV or magazines to lose weight"). Due to differences between pictures represented on Iranian Islamic national TV and satellite channels both "TV" and "satellite" are mentioned in the Persian version.

Participants were asked to indicate their level of agreement with each statement on a five-point scale ranging from 1 (definitely disagree) to 5 (definitely agree). As the subscales

define a common factor and the ordinal theta of .960 showed a high internal reliability in this study, the total score of all 4 subscales were considered to assess overall media influence. Scores in this measure range from 30-150, with higher scores indicating greater information, pressure and/or internalization of society's attractive ideal.

Appearance Schemas Inventory-Revised (ASI-R). The Persian translated of the revised version of the Appearance Schemas Inventory-ASI-R (Cash, Melnyk, Hrabosky, 2004) was used to assess core beliefs and assumptions regarding the importance, meaning, and influence of appearance in everyday life. The 20-item scale includes two subscales. The first factor assesses a persons' self-evaluative salience of their appearance (e.g., "When I see good-looking people, I wonder about how my own looks measure up"). The content of the 12 items reflects the extent to which individuals define or measure themselves by their physical appearance, which they believe has an influential role in their social and emotional experiences. The second factor consists of eight items that reflect the respondents' motivational salience or the extent to which they attend to their appearance and engage in appearance-management behaviors (e.g. "Before going out, I make sure that I look as good as I possibly can"). This scale has shown validity for students, individuals with body dysmorphic disorder and individuals who are interested in cosmetic surgery (Grocholewski, Tuschen-Caffier, Margraf, & Heinrichs, 2011).

Participants used a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) to indicate their level of agreement with the 20 statements. Higher scores represented higher appearance investment or the greater degree of importance of one's appearance to self-worth. The items were

summed up to obtain a total appearance investment score, with possible scores ranging from 20 to 100. The ordinal theta showed a relatively high reliability ($\Theta = .857$)

Physical Appearance Perfectionism Scale (PAPS). To measure perfectionism traits regarding appearance, a Persian translation of the physical appearance perfectionism scale (PAPS - Yang & Stoeber, 2012) was used. PAPS are a brief measure consisting of 12 items with two subscales: Worry About Imperfection (7 items, e.g. "I am never happy with my appearance no matter how I dress.") and Hope For Perfection (5 items, e.g. "I hope others admire my appearance."). As a rating scale, a five-point scale was used from 1 (strongly disagree) to 5 (strongly agree). Yang & Stoeber (2012) pointed out the differential validity of the two subscales which has been proved by correlation analyses. The subscale of Worry About Imperfection has negative correlations with positive self-perceptions of one's appearance (e.g., appearance self-esteem) and positive correlations with maladaptive aspects of perfectionism, physical appearance concerns (e.g., body image disturbances), while Hope For Perfection shows positive correlations with positive motivational aspects of perfectionism, positive self-perceptions, and impression management. That means Worry about Imperfection shows a positive correlation only with the maladaptive concerns subscale, and Hope for Perfection only with the positive striving subscale, while the PAPS total score has positive correlations with both subscales. The two factors also have a significant positive correlation ($r = 0.20, p < 0.05$). Thus, as it was recommended by Yang & Stoeber, (2012) each subscale was studied, separately. The ordinal theta in this study was .777, which shows an acceptable reliability of this scale in Persian.

Acceptance of the Cosmetic Surgery Scale (ACSS). The Persian version of the Acceptance of the Cosmetic Surgery Scale–ACSS (Henderson-King & Henderson-King, 2005) was used to assess participants' attitudes toward cosmetic surgery. The scale assessed both general attitudes and the likelihood of actually undergoing a cosmetic surgical procedure. The 15-item scale consists of three 5-item subscales: Intrapersonal, Social, and Consider. The Intrapersonal subscale is an other-oriented measure, assessing attitudes and beliefs about cosmetic surgery for people in general (e.g., “Cosmetic surgery is a good thing because it can help people feel better about themselves”). In contrast, the Social and Consider subscales are self-oriented measures. The Social subscale assesses personal social motivations for cosmetic surgery (e.g., “If it would benefit my career I would seriously consider having cosmetic surgery”), whereas the Consider subscale assesses the likelihood that the respondent would consider having a cosmetic surgical procedure (e.g., “In the future, I could end up having some kind of cosmetic surgery”). Using a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree), participants were asked to indicate their level of agreement with the 15 statements. A total score for each of the three subscales was obtained by summing up the five relevant items, with possible scores for each ranging from 5 to 35. The ordinal theta of this scale indicates its high reliability in this study ($\Theta = .941$).

Demographic

Demographical data consisted of questions referring to respondents' age, gender, marital status, major and degree levels. The Participants also indicated the number (never, once, twice, and more than twice) they had had cosmetic surgery in the past.

Results

Correlation analysis

Statistical analysis was carried out on SPSS. First one-sample K-S test was utilized to examine the normal distribution and linear association between independent variables as the related assumption for multiple regression analysis. By the endorsement of these assumptions the regression analysis was done. The ineligible data was excluded from the analysis process by using adjusted scores to conform the parametric assumptions. Table 1 presents the descriptive statistics (*M* and *SD*) and zero-order correlations between the independent variable (Socio-cultural Attitudes toward Appearance), the mediator variable (Appearance Investment), the moderator variable (Physical Appearance Perfectionism) with its two subscales (worry about imperfection and hope for perfection), and the dependent variable (Tendency Toward cosmetic Surgery).

Table 1
The Descriptive Statistics and Bivariate Correlation Coefficients (Pearson's r)

		SATAQ	PAPS		ASI	ACSS
			WAI	HFP		
SATAQ		1				
PAPS	WAI	.343***	1			
	HFP	.297***	.285***	1		
ASI		.485***	.379***	.496***	1	
ACSS		.437***	.309***	.248***	.454***	1
M		87.08	16.69	20.00	66.21	57.00
SD		24.315	5.021	2.594	11.245	21.635

Note. SATAQ= Socio-cultural Attitudes toward Appearance; PAPS= Physical Appearance perfectionism, WAI= Worry about Imperfection, HFP= Hope for Perfection; ASI= Appearance Investment; ACSS=Attitudes toward Cosmetic Surgery.

****p* < .001

As can be seen, media influences socio-cultural attitudes toward appearance; appearance investment as well as both subscales of physical appearance perfectionism was positively related to positive attitudes toward cosmetic surgery. These results indicate that individuals who are affected more by media and/or have perfectionistic attitudes toward physical appearance and/or invest more in their appearance show more tendencies toward cosmetic surgery. Furthermore, all predictors were themselves significantly correlated.

The Effect of Moderator

Multiple regression analyses were conducted separately for each subscale of physical appearance perfectionism (worry about imperfection and hope for perfection) to investigate the moderator role of each of them between socio-cultural attitudes toward appearance and appearance investment. Analyses were conducted according to the procedures set forth by Baron and Kenny (1986). Socio-cultural attitudes toward appearance as predictors, worry about imperfection or hope for perfection as moderators and the interaction of multiplying these two variables entered in the regression equation.

For worry about imperfection (Fig.1), results indicated that there was a significant main effect in the interaction of multiplying socio-cultural attitudes toward appearance, worry about imperfection subscale and appearance investment (Table 2), which accounted for 27% of the variance in appearance investment's score.

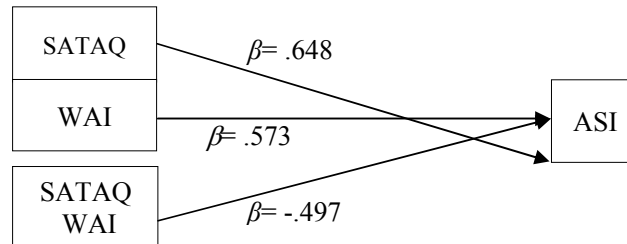


Figure 1

The relationship between socio-cultural attitudes toward appearance (SATAQ) and appearance investment (ASI) moderated by worry about imperfection (WAI)

For hope for perfection, separate multiple regression analyses were conducted and the result of the interaction of the predictor, socio-cultural attitudes toward appearance, and the moderator, hope for perfection, werenot significant ($\beta = -.758$, $p = .083$). Hence, only the subscale of worry about imperfection moderated the relationship between socio-cultural attitudes toward appearance and appearance investment.

Table 2

Regression Coefficients of Moderator Effect of Worry about Imperfection

	Predictors	B	B	t
Step 1	SATAQWAI	.007	.481***	12.965
Step 2	SATAQWAI	.005	.317***	5.463
	SATAQ	.093	.212***	3.651
	SATAQWAI	-.007	-.497*	-2.544
Step 3	SATAQ	.285	.051***	5.624
	WAI	1.188	.273***	4.358

Note. Dependent variable: ASI, * $p < .05$, ** $p < .01$, *** $p < .001$

The Effect of Mediator

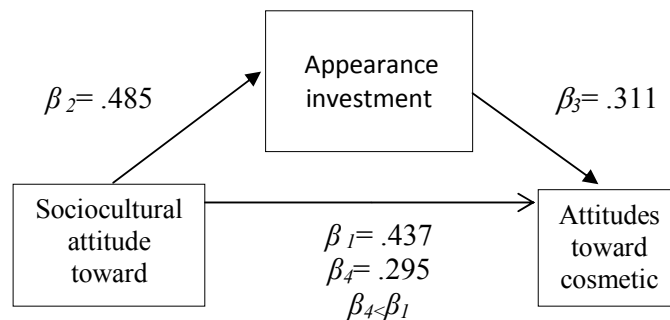


Figure 2

The relationship between socio-cultural attitudes toward appearance (SATAQ) and attitudes toward cosmetic surgery (ACSS) were mediated by appearance investment (ASI)

Hierarchical multiple regression analyses were conducted to investigate whether appearance investment mediated the relationship between media influences and attitudes toward cosmetic surgery.

Regarding the results of the correlation matrix between the studied variables (Table 1), the primary assumptions set forth by Baron and Kenny (1986) for correlation between the predictor, mediator and dependent variables were obtained. To examine the mediator role of appearance investment there are three criteria. First, the dependent variable (attitudes toward cosmetic surgery) regressed on the predictor variable (socio-cultural attitudes toward appearance) to show that the predictor is significantly correlated to the independent variable. The result of multiple regression analysis demonstrated that socio-cultural attitudes toward appearance was associated with attitudes toward cosmetic surgery ($\beta_1 = .437$, $p < .001$, Fig. 2). In the second regression analysis the mediator variable (appearance investment) regressed on the predictor variable. The result

revealed that media influences were significantly related to appearance investment ($\beta_2 = .485, p < .001$, Fig.2). Finally, in the last regression, the dependent variable regressed on both media influences and appearance investment as predictors and mediator variables (Table 3).

Table 3
Coefficients of the Mediation role of Appearance Investment

	Predictors	Adj.R ²	B	B	t
Step 1	ASI	.21	.871	.454***	12.699
Step 2	ASI	.27	.597	.311***	7.937
	SATAQ		.262	.295***	7.531

Dependent variable: ACSS, *** $p < .001$

The result indicated that the mediator variable was related to the dependent variable and accounted for 21% of the relation between the predictor and the dependent variable ($\beta_4 = .295, p < .001$, Table 2; Fig. 2). Although, the beta value for media influences reduced (.437 to .295), clearly remained significant, providing evidence for partial mediation. That is, media influences had direct and indirect (via appearance investment) effect on the tendency for cosmetic surgery.

Discussion

The dramatic increase in the number of cosmetic surgery procedures in the world has called the attention of many researchers to identify the underlying motives to go under the knife. Although there is no reliable data on the number of procedures done in our country, Iran has been known as the center for nose job operations. It is an undeniable fact that people's lives are strongly shaped by the personal and cultural

attitudes toward physical appearance (Cash, 2005). The previous studies have identified mass media messages about physical appearance and body dissatisfaction as basic factors in engaging in appearance- enhancement behaviors. (Delinsky 2005; Swami et al. 2008, 2009; Markey & Markey 2009,2010; Henderson-King & Henderson-King 2005; Sarwer, 2002; Sarwer, Cash, 2005). Other researchers mention perfectionism as a psychological factor affecting the desire to have cosmetic surgery (Buhlmann, Etcoff, & Willhelm, 2008; Sherry, Hewitt, Lee-Baggle, Flett, & Besser, 2004; Wade, & Tiggemann, 2013).

This study aimed to investigate the relationship between media influences, appearance perfectionism, appearance investment, and attitude toward cosmetic surgery. Media influences were hypothesized to exert both a direct and indirect effect on attitudes toward cosmetic surgery. It was examined to see whether appearance investment mediates the relationship between media influences and attitudes toward cosmetic surgery. Additionally, this study was conducted to inspect the moderator role of perfectionism in association between media and appearance investment.

The first findings indicate that media, appearance perfectionism, and appearance investment are significantly correlated and they are linked to attitudes toward cosmetic surgery. The positive correlation between socio-cultural attitudes toward appearance and acceptance of cosmetic surgery shows that individuals who are influenced by media messages to a greater degree than their peers, are more likely to enhance their appearance. In other words, it seems that persons who accept and internalize media messages about appearance and refer to this information for what their appearance should look like are also more likely to be interested in pursuing cosmetic surgery to

fit in with societal norms. The present results indicate the important role of media influences in the tendency for cosmetic surgery. As various literature reviews have highlighted, mass media have a more influential role in the socialization of people's physical appearance standards and expectations than other socio-cultural influences like peers and parents (Tiggemann, 2002). While this is in contrast to the results of Brown et al. (2007) who reported no effect of media exposure on the likelihood of having cosmetic surgery, it is nevertheless in line with most studies in this regard (e.g., Delinsky 2005, Swami et al. 2008, 2009, Markey & Markey, 2009, 2010). This result is also consistent with other research regarding media influences on the tendency for cosmetic surgery in Iran (e.g., Farshidfar, 2013; Salehahmadi, & Rafie, 2012; Tavassoli, & Modiri, 2012).

Furthermore, there was a significant correlation between media influences and appearance investment. Although there is very little research on the association between socio-cultural influences and appearance investment this finding is consistent with the result of Cash, & Melnyk's research (2004) on assessing the correlation between appearance investment and socio-cultural attitudes toward appearance. Similarly, Tiggemann (2005) found that socio-cultural attitudes toward appearance correlates with appearance investment, while Slevec & Tiggemann (2010) implied that only magazine exposure has a significant correlation with appearance investment. This result indicates that media messages regarding appearance have an impact on self-schemas about appearance and evaluating one's self-worth.

In addition, Pearson's correlation shows the positive relationship between media influences and physical appearance perfectionism subscales. Although this study is the first of its

kind that assesses appearance perfectionism regarding tendency for cosmetic surgery, to date no research has been done on the relationship between appearance perfectionism and media influences, the result indicates that there is a significant correlation between these two variables. It means that people who worry more about showing imperfection and hope for more perfection are impacted relatively more by the media's messages about appearance standards. Although, just one of the subscales of physical appearance perfectionism, Worry about Imperfection, moderated the relationship between media influences and appearance investment and Hope for Perfection it could not establish the moderator role. This findings support the idea that each facet of perfectionism has a distinguishing effect on appearance investment and it is consistent with Yang & Stoeber (2012) who indicated that Hope for Perfection has only a positive correlation with positive motivational aspects of perfectionism and positive self-perceptions, while the subscale of Worry about Imperfection has a negative correlation with positive self-perceptions of one's appearance and positive correlations with maladaptive aspects of perfectionism and physical appearance concerns. Thus, highly perfectionistic individuals are more sensitive to socio-cultural attitudes provided by mass media, perhaps because they are more worried about showing imperfection and how perfect they must look. This is also consistent with the findings of Williams (2009) which examined the moderator role of perfectionism between media and body related attitudes. For the individual with idealistic goals, evaluating the appearance as undesirable and inadequate could initiate enhancing-behaviors. The idealized appearance promoted by mass media associated with the moderator role of a perfectionist's high standards and worries about showing imperfection as maladaptive aspects of

perfectionism can lead to emphasizing the importance of appearance in their self-worth which suggests that perfectionists may feel pressure to obtain a perfect appearance even through cosmetic surgery (Sherry et al., 2004). Hence, it may be a useful construct to include perfectionism as a personality trait in prevention programs for body image disorders or the development of health-risk behaviors.

"In [the] transactional view of self and society, personal factors in the form of cognitive, affective, and biological events, behavioral patterns, and environmental events" which, as Bandura (2001, p.266) stated, all operate as interacting determinants that influence each other bi-directionally, perfectionism can play a role as a personal determinant, enhancing appearance through cosmetic surgery indicates behavioral pattern and mass media represent social attitudes. According to the cultivation theory (Gerbner et al., 2002), it cultivates ideas that are present in society and, in turn, maintains and propagates these so that eventually what is presented in the media becomes a "norm" which is nearly impossible to achieve without surgery. This can also be accurate for those who have high appearance investment. Because of the established role of appearance investment and body image in predicting the individual's desire to change bodies (Sarwer, Cash, 2005; Slevec, & Tiggemann, 2010), and past research investigating mediational models, hence appearance investment was examined as a mediator of the social influences when attempting to predict interest in cosmetic surgery. Hierarchical multiple regression analyses showed that appearance investment did partially mediate the relation between socio-cultural attitudes toward appearance and interest in cosmetic surgery. This result established that the media has both a direct and indirect effect on the tendency for cosmetic surgery but

individuals who define their self-worth by their physical appearance are more prone to engage in enhancement behaviors. Research clearly indicates the vital role that individuals' perception of their physical attractiveness has on their general sense of self-worth. Although, normative developmental concerns about physical appearance issues are likely worsened by socio-cultural messages presented by the media which conveys to individuals the importance of their body's appearance it is also necessary to consider that it may not be only media exposure per se that is important to encourage people to have cosmetic surgery, but rather the extent to which individuals evaluate theirself-worth through appearance and how harsh this evaluation is.

In conclusion, this study confirmed the important role of the media and personal factors in appearance evaluation and enhancement behaviors. These findings suggest that by developing the sense of self-worth that is not valued by the appearance and by targeting perfectionism among young adults it is possible to diminish the negative effect of media messages about physical appearance which can lead to positive attitudes toward cosmetic surgery.

This research should be interpreted within a number of limitations. Most obviously, the data is derived from self-report measures that, although psychometrically sound and well validated, are open to criticism. Second, the research has been conducted with university students with a mean age of 21.8 years and these results may not be applicable to other age groups or individuals without higher education. Furthermore, this research can also be extended by investigating each subscale's effects. Finally, as with all cross-sectional studies, temporal precedence and causation couldn't be established.

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