

Fort Hays State University

## FHSU Scholars Repository

---

Master's Theses

---

Spring 2024

# Exploring Psychological Factors Behind Consideration of Cosmetic Surgery Through the Lens of Social Comparison Theory

Noriene Verma

Fort Hays State University, [verma.noriene@gmail.com](mailto:verma.noriene@gmail.com)

Follow this and additional works at: <https://scholars.fhsu.edu/theses>



Part of the [Clinical Psychology Commons](#), and the [Social Psychology Commons](#)

---

### Recommended Citation

Verma, Noriene, "Exploring Psychological Factors Behind Consideration of Cosmetic Surgery Through the Lens of Social Comparison Theory" (2024). *Master's Theses*. 3242.

DOI: 10.58809/YPRI2060

Available at: <https://scholars.fhsu.edu/theses/3242>

This Thesis is brought to you for free and open access by FHSU Scholars Repository. It has been accepted for inclusion in Master's Theses by an authorized administrator of FHSU Scholars Repository. For more information, please contact [ScholarsRepository@fhsu.edu](mailto:ScholarsRepository@fhsu.edu).

**EXPLORING PSYCHOLOGICAL FACTORS BEHIND CONSIDERATION OF  
COSMETIC SURGERY THROUGH THE LENS OF  
SOCIAL COMPARISON THEORY**


A Thesis Presented to the Graduate Faculty  
of Fort Hays State University in  
Partial Fulfillment of the Requirements  
for the Degree of Master of Science

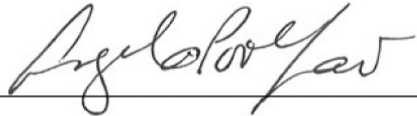
by

Noriene Verma

B.S., Heriot Watt University

Date 4/24/24

Approved   
Major Professor

Approved   
Dean of the Graduate School

## ABSTRACT

Cosmetic surgery refers to an extreme form of appearance modification whose sole purpose is to improve the appearance of the chosen area. Despite psychological concerns associated with repeated perform of cosmetic surgery, rates of cosmetic procedures are likely to increase in the coming years (American Society of Plastic Surgeons, 2020) and it warrants the need to study the potential motivators that encourage someone to opt for such procedures. Motivators of cosmetic surgery explored in this study are social media usage and self-esteem through the lens of Social Comparison Theory. Social comparison theory can explain the mechanisms behind one's desire to get cosmetic surgery by proposing that excessive use of social media will perpetuate upwards social comparison. Particularly, it is hypothesized that an individual's self-esteem will mediate the relationship between social media usage and desire to get cosmetic surgery. Three hundred and twenty-two participants were asked to finish the following measures using the Amazon Mechanical Turk online platform: Acceptance of Cosmetic Surgery Scale, the State Self-Esteem Scale, and MTUAS- General Social Media Usage Subscale. The results show that all variables are positively related to one another, and that self-esteem is a partial mediator of the relationship between social media usage and consideration of cosmetic surgery. This study will add to the literature on predictors of cosmetic surgery. The results will also have implications in clinical settings by supporting the psychological screening of patients opting for aesthetic surgery.

## ACKNOWLEDGEMENTS

I would like to thank everyone in the Fort Hays Psychology department for making this thesis possible. Without your help and endless patience for my questions, this project would never have reached this stage. Special thanks go to my advisor, Dr. April Park whose advice and guiding hand ensured this thesis remained legible. I would also like to thank Ken Winholz, Dr. Stephanie Weigel and Dr. Pelgy Vaz, for being part of my thesis committee and providing their valuable expertise.

Finally, and perhaps most importantly, I would like to thank my parents. None of this would have been possible without your endless support (limited to phone calls though it may be). Your love and patience mean more to me than I could ever put into words. Thank you for all the encouragement and pep talks!

## TABLE OF CONTENTS

ABSTRACT .....	i
ACKNOWLEDGEMENTS .....	ii
TABLE OF CONTENTS .....	iii
LIST OF TABLES .....	v
LIST OF FIGURES.....	vi
LIST OF APPENDICES .....	vii
INTRODUCTION .....	1
Social Comparison Theory .....	3
Appearance-based Social Comparison: Impact of Self-esteem and Social Media .....	7
Desire to get Cosmetic Surgery .....	10
CURRENT STUDY .....	13
Proposed Hypotheses .....	14
PILOT STUDY .....	15
METHODS .....	17
Participants.....	17
MEASURES .....	20
MTUAS- General Social Media Usage Subscale .....	20
State Self-Esteem Scale .....	21
Acceptance of Cosmetic Surgery Scale .....	21
Psychological Well-Being Scale.....	22

RESULTS .....	23
Mediation Model Hypothesis Testing.....	24
DISCUSSION.....	26
Strengths and Limitations .....	30
Implications.....	32
Conclusion .....	34
REFERENCES .....	36

## LIST OF TABLES

Table		Page
1	Gender differences in history of cosmetic surgery .....	26
2	Gender differences in future consideration of cosmetic surgery .....	26
3	Descriptive Statistics and bivariate correlations of variables. ....	31

## LIST OF FIGURES

Figure		Page
1	Standardized regression coefficients ( $\beta$ ) for the relationship between social media usage and desire to get cosmetic surgery as mediated by self-esteem .....	22
2	Standardized regression coefficients ( $\beta$ ) for the relationship between social media usage and desire to get cosmetic surgery as mediated by self-esteem as analyzed in the pilot study .....	23
3	Standardized regression coefficients ( $\beta$ ) for the relationship between social media usage and desire to get cosmetic surgery as mediated by self-esteem.....	32



## LIST OF APPENDICES

Appendix	Page
A Demographic Questions.....	46
B Acceptance of Cosmetic Surgery Scale (ACSS).....	48
C The Media and Technology Usage and Attitudes Subscale.....	51
D State Self-Esteem Scale (SSES).....	52
E Psychological Well-being Scale.....	53
F IRB Exemption Letter.....	54

## INTRODUCTION

Cosmetic surgery has always been a controversial topic. Historically, the procedures associated with cosmetic surgery were developed with the aim of helping soldiers with facial injuries reintegrate into society (Chambers & Ray, 2009) and have since evolved drastically. While procedures are still performed with reconstructive purposes, they are distinct from cosmetic surgery whose sole purpose is appearance enhancement which will be the focus of this study. Cosmetic surgery refers to an elective medical procedure performed on parts of the body with the purpose of enhancing a person's physical appearance. It is generally divided into two major categories based on its purpose: reconstructive and cosmetic. The former refers to procedures performed with the aim of reconstruction, repair or replacement of dysfunctional areas of the body while the latter aims at improving the appearance of a particular feature of the body (Royal College of Surgeons of England, 2019). For the purpose of the current study, cosmetic surgery will be defined as encompassing both elective surgical procedures (e.g., eyelid surgery, liposuction etc.) and minimally invasive procedure (e.g., Botox, injections, chemical peeling etc.).

Though there are benefits associated with cosmetic surgery, such procedures also have the chance of significant risks ranging from various physical and medical conditions that can occur in infrequent cases, to life threatening complications. Moreover, studies show that even in successful procedures, patients are shown to experience what is known as 'decision regret', a feeling of distress experienced by the patient after making a health care decision. A recent study found that approximately 60% of participants report feeling regret after undergoing plastic surgery, with unmet expectations being the most common reason (Jones et al., 2023). Despite the possibility of medical complications and the risk of unmet expectations post procedure, cosmetic

surgery has become more popular than ever. The number of cosmetic surgeries being performed increased recently, with statistics from the American Society of Plastic Surgeons showing that an approximate 15.6 million cosmetic procedures were performed in 2020 in the United States (2020). Research shows that these numbers have increased since 2019, more specifically, since the beginning of the COVID-19 pandemic. Studies show that a possible reason for this is due to an increased use of videoconferencing wherein people are increasingly exposed to their own image and perceived flaws due to increased time spent looking at their own image (Padley & Di Pace, 2021). The trend continues to indicate that cosmetic surgery is likely to increase in the coming years.

Considering the projections of increased rates of cosmetic surgeries in the future, it is important to understand the mechanisms behind what might motivate someone to engage in cosmetic surgery despite the potential of physical and/ or psychological risks. A functional model that could potentially serve as a motivator is the idea that people engage in upward social comparison through avenues like social media and find themselves 'lacking' in some way. Exposure to the idealized forms of beauty depicted in social media and subsequent comparison against them may impact the individual's self-esteem and might serve as the impetus for engaging in appearance modifications like cosmetic surgery. It is important to note that while everyone receives sociocultural messages about beauty every day, perhaps primarily through social media for younger people, not every person feels the pressure to engage in cosmetic procedures to meet a societal expectation of beauty. This study proposes that self-esteem is the internal motivator that could encourage the person to act on meeting their standards of beauty. A theoretical framework that might potentially explain this mechanism is that of Social Comparison Theory (Festinger, 1954).

## **Social Comparison Theory**

While there are a lot of contemporary theories about social comparison, most of them originate in the seminal research by Leon Festinger in the 1950's. The basis of this theory is that individuals are socially driven to engage in comparisons in order to gain accurate information for self-evaluation (McIntyre & Eisenstadt, 2011). Social comparison occurs when an individual determines their social and personal worth by comparing with others (McIntyre & Eisenstadt, 2011). Apart from forming their idea of the 'self', Festinger proposed that people have an innate desire to need to know their own capacities and limitations to function effectively in social domains (Perera et al., 2021). Research shows that when people receive information about what situation others are in, what they can or cannot do, what they have achieved etc., people are likely to relate this information to themselves (Dunning, 1996). Thus, people compare themselves with others to gauge where they stand on a particular attribute. These comparisons are considered to be essential tools that assist in the creation of the 'self' through self-evaluation in the respective context of comparison. There is also a significant emotional component involved in the process of social comparison. They elicit emotions like pride in achieving excellence, marveling at the accomplishments of others, or feel the pain of envying others (Crusius et al., 2019).

When commenting on 'why' people engage in social comparison, Festinger's theory posits that it is important to know the self in the context of others so as to provide accurate appraisals of oneself (Crusius et al., 2022). Studies also note that people have a basic need to maintain an accurate view of themselves and are therefore likely to seek objective standards for evaluations. However, since there are cases in which objective standards are too unattainable or unavailable, people fall to social comparisons instead (Crusius et al., 2022). Beauty standards,

for instance, can be rather difficult to encompass objectively since they can be both culture and era specific (Bonell et al., 2021). Festinger initially proposed that people rely primarily on objective standards for such comparisons, but when considering certain metrics, like appearance, that can be hard to achieve. Research shows that when lacking objective criteria, people are more likely to turn to social comparison. For instance, in a recent study exploring the internalization of appearance ideals in women, Jung et al. (2022) found that social comparison mediated the relationship between social media use and body image. It is, therefore, through the mechanism of social comparison that outward influences like social media can impact internalized concepts like body image.

Another reason why people engage in social comparison is simply because it is convenient. Social comparisons are cognitively more efficient than processing absolute modes of information processing (Corcoran & Mussweiler, 2010) and thus, serve as a heuristic which allows people to quickly take stock of relevant information. For example, if one tries to judge their physical appearance, they may have to take into account numerous considerations in order to make relevant, objective comparisons. Instead, people may turn to social comparison using context-relevant standards for an easier and more convenient subjective evaluation. This interpretation is consistent with Festinger's theory where he points out that people compare themselves to those who are similar to them, but slightly better in terms of achievement. For example, when comparing athletic ability, the individual would want to select someone who is both close in age (e.g., not an elderly person or too young) and close in ability (e.g., not a professional athlete). Despite the comparison metric being closer, people are still more likely to trend toward upwards comparison. Upward comparison in the age of social media is both inevitable as people are driven by the desire to present their "best self" (Jung et al., 2022), which

creates unequal avenues for social comparison. This comparison gets further muddled when one begins to consider the extensive use of appearance altering filters on videos and photos on social media platforms and their role in creating unattainable standards of beauty that people may be motivated to reach through the means of cosmetic surgery.

In a meta-analytic review, Gerber et al. (2018) found that 3 out of 4 people self-reported preference for upward social comparison. Festinger's classic comparison theory states that people engaging in social comparison should be happy if they believe they are better off than the person to whom they compare themselves (White et al., 2006). Upwards social comparison may also be due to the "unidirectional drive upward" hypothesized by Festinger. In contemporary cultures, people may feel the need to evaluate their abilities by comparing upwards because they feel the pressure to continually improve (Perera et al., 2021). This drive may not be as active or actionable when engaging in downwards social comparison. Thus, upward social comparison can sometimes serve as a means of improving mood if a person already has high self-esteem. In cases where a person has low self-esteem however, upward social comparison can have a negative effect. Upward social comparisons, therefore, have the potential to threaten individuals' well-being because individuals may be faced with their supposed inferiority (Wood, 1989). More in-depth discussion on the relationship between appearance based social comparison and self-esteem is found in the later section of this paper. There are also notable consequences to excessive social comparison pointed out in Festinger's original theory. He notes that comparisons can cause a change in one's opinion about their own ability and a 'dominance of assimilation' as an outcome (Crusius et al., 2022). This dominance refers to the idea that it is information retained from social comparisons that becomes the primary source of information upon which individuals create their self-concepts. This interpretation is in line with other

sociocultural theories which posit that individuals engage in appearance based-social comparison by comparing one's appearance with that of models in social media and use these external cues to inform their internal views of themselves (Jung et al., 2022).

Though Social Comparison Theory can encompass factors like self-esteem and body dissatisfaction (Morrison et al., 2004), factors that are considered prominent motivators in one's desire to get cosmetic surgery can often occur in diverse conditions which is why it is important to take into consideration the social context. When considering social comparison, it is important to discuss the avenues where the comparison occurs, for example, physical appearance, athletic ability, displays of wealth, academic ability etc. Studies show that comparisons in these areas collectively contribute to the formation of self-esteem and assists in the development of the 'self' (Dapp et al., 2023). Physical appearance, in particular, constitutes an integral aspect of personal identity especially in relation to one's perception of the 'self'. Research has consistently shown that physical aesthetics are greatly desired by people as they are considered essential in the measure of a person (Lundy et al., 2010). This also brings into question what defines 'beauty' or attractiveness. Perceptions of attractiveness, while partially guided by instinctual evolutionary cues, are also defined by sociocultural factors (Cafri, 2005). If the ideal forms are defined by sociocultural factors, then they are likely presented very prominently in the various forms of media. Social media in particular offers unparalleled and effortless access to these standards. But, if these ideal forms or standards are internalized in a person too much, through the means of upwards social comparisons, it can lead to a decrease in self-esteem (Walker et al., 2019). These factors combined can often motivate someone to turn to progressively more extreme forms of appearance modification including cosmetic surgery. This study hypothesizes that social media usage and self-esteem are predictors of cosmetic surgery.

## **Appearance-based Social Comparison: Impact of Self-esteem and Social Media**

Appearance comparisons with others is a naturally occurring common experience amongst people, especially young women (Leahey et al., 2007). It is noted that appearance focused social comparison leads to ‘normative discontent’ which in turn can lead to feelings of worthlessness and incompetence. Body dissatisfaction and body image disturbance is also associated with social comparison such that excessive comparisons can lead to dysfunctional cognitions regarding weight and shape. The main avenue through which these comparisons occur in the modern age, is primarily through social media. The negative cognitions that come about as a result of excessive upwards social are then theorized to increase the risk for negative emotions, like guilt and shame, as well as behavioral consequences like dieting. Thus, it may be possible to trace the path of how social media usage can impact one’s decision to get cosmetic surgery through how social media consumption influences self-esteem.

For the purpose of this study, it is important to distinguish between global self-esteem, appearance-based self-esteem and how they relate to social comparison. Self-esteem is the component of self-knowledge that is based on the evaluation of the self often in relation with others (Barker & Bornstein, 2010). Thus, high self-esteem indicates favorable evaluations of the self and low self-esteem indicates unfavorable evaluations. Alongside many other factors, the experience of emotions, like pride and envy, can directly or indirectly influence an individual’s self-esteem through social comparison (Crusius et al., 2019). Studies show that when people engage in social comparison and find themselves “ranking lower” than the subject of their comparison (Jiang & Ngien, 2020), they might start to actively engage in crafted behaviors to conform to certain standards or norms (Gilbert, 2001). As noted earlier, downward social



comparison might not promote the necessary level of motivation that is inspired by upwards social comparison (Perera et al., 2021).

Research has also drawn a more direct path between self-esteem and social comparison by showing that those who engage in upwards social comparison are more likely to have low self-esteem (Schmuck et al., 2019). Consistent with the interpretation that social comparison influences self-esteem, studies show that appearance comparisons lead to engagement in behaviors like exercising and maladaptive eating habits (Taniguchi & Hubbard, 2020). It can thus be assumed that changes in self-esteem caused by upwards social comparison may, in some part, be responsible for behavior modification inclined towards improving appearance. Social comparison, therefore, also serves as a tool for self-improvement if used to an appropriate amount. To gain information on how to enhance themselves, people seek comparison with others who are better than them, namely upward standards (Crusius et al., 2022). Thus, social comparison can be understood as a psychological tool that exists for the purpose of fulfilling fundamental needs like self-evaluation and self-enhancement.

It is important to consider the difference between global self-esteem and domain specific self-esteem. The former refers to the person's perception of their overall (or generic) worth, whereas domain-specific self-esteem refers to self-satisfaction in a particular domain, for instance, physical appearance (Gentile et al., 2009). When engaging in social comparison, people often evaluate multiple domains simultaneously which impacts not only their self-satisfaction in that domain, but also their global self-esteem. Unhappy people are more likely to engage in social comparison compared to happy people (White et al., 2006). Happy people are shown to be less affectively vulnerable when attaining social comparison information and consequently did not pay as much attention to how well others are doing. Regardless of their current attribution of

themselves, everyone engages in social comparison to try to create and maintain a positive self-image by seeking accurate feedback in relation to themselves. In the modern age, the most accessible means with which people engage in social comparison, is social media.

Social media consists of various digital platforms that have changed the way people communicate and interact with one another. Apart from its role in communication, social media has also become an increasingly popular leisure activity since it provides diverse forms of entertainment and social activities (Ozimek et al., 2023) like sharing pictures, interacting with friends and strangers alike and engaging with others in the form of text, photo, or video on sites like Twitter, Facebooks, Instagram, Snapchat etc. The psychological impacts of using social media are varied in research surrounding the topic due to the varying manners in which it is utilized by people. For instance, studies show that while social media may be correlated with depression, anxiety, and loneliness, it can also lead to an increased sense of connectedness (Ostic et al., 2021). From this view, social media is considered to an ideal platform to foster the development of one's identity, reputation, and presence, thus facilitating the social interaction and the sharing of ideas.

Considering this framework, social media serves as the primary means through which people attain their ideas of beauty and the avenue where they are more likely to engage in upwards social comparison. It is important to note that social media presents a uniquely favorable environment for upwards social comparison since studies show that people are more likely to display the most ideal image of themselves (Liu et al., 2017). This image is most often subject to digital alterations which research showing that use of filter and editing software when posting picture on social media may be related to low self-esteem and increased acceptance of cosmetic surgery (Chen et al., 2019). Thus, when people compare themselves to these edited,

idealized images, they are more likely to engage in upwards social comparison. Moreover, studies show that engagement with social media where people come into contact with altered images is correlated with changes in self-esteem such that exposure to such images impairs their self-esteem (Ozimek et al., 2023). The change in self-esteem likely occurs because people are confronted with a significant contrast between what they perceive to be a beauty ideal, and their current appearance. Notably, when people possess high self-esteem, they are less likely to seek validation from social media, instead, they tend to have a positive evaluation of themselves and are more likely to accept their physical appearance. Thus, when people with high self-esteem are confronted with idealized images on social media, they are less likely to consider appearance changes like cosmetic surgery. It is, therefore proposed, that exposure to social media may be responsible for changes in self-esteem, which in turn, impacts one's decision to consider cosmetic surgery.

### **Desire to get Cosmetic Surgery**

There are several factors that are reported to be significant predictors of one's desire to undergo cosmetic surgery. In a meta-analysis on motivators for cosmetic surgery in South Korea, self-esteem and body satisfaction were found to be related to one's desire to get cosmetic surgery (Yoon & Kim, 2019). Body satisfaction is conceptually close to self-esteem, though it refers more particularly to the negative thoughts an individual has about their body (Markey & Markey, 2009), often encompassing the feelings of discrepancy between the actual body features and the ideal body features. This distance between the actual and the ideal form is also alluded to in Festinger's SCT which mentions that people will eventually decrease their tendency to engage in social comparison once the gap between the upward ideal and their own ability or appearance decreases (Perera et al., 2021). And so, low body satisfaction is associated with increased desire

for bodily change and appearance modification, whereas individuals who are satisfied with their bodies are less likely to consider any bodily change (Lee et al., 2009). Further supporting this idea are studies which show that weight and diet are also significant predictors of cosmetic surgery, such that women on both extremes of the BMI index are more motivated to engage in cosmetic surgery (Swami, 2009). This may be because the ideals of extreme thinness often emphasized in social media are unrealistic due to digital and surgical alterations, and it is comparison against that metric which impacts the self-esteem of women regardless of where they stand on the BMI index (Ando et al., 2021). Regardless, body satisfaction is consistently related with one's desire to engage in cosmetic surgery as a motivator. This interpretation is reflected in more recent studies as well, which show that exposure to objectified representations of women's bodies on social media was negatively associated with body satisfaction (Schettino et al., 2022). In turn, body satisfaction was shown to be negatively correlated with one's consideration of engaging in cosmetic surgery, i.e., those with lower body satisfaction were more likely to consider cosmetic surgery for appearance enhancement (Schettino et al., 2022).

Other motivators that are closely associated with one's desire to get cosmetic surgery are identified in a regression study conducted by Furnham and Levitas (2012). The study found that increased exposure to depictions of cosmetic enhancement on social media, low self-esteem, low ratings of life satisfaction and increased amount of time spent on media are significant predictors of one's intention to get cosmetic procedures. Further support that self-esteem is involved to some extent as a motivator in cosmetic surgery is seen in studies which show that self-esteem can significantly increase in some individuals who undergo cosmetic surgery (von Soest et al., 2009). These motivators comprise some of the internal factors that can contribute to the decision to get cosmetic surgery. In their study exploring the psychological benefits of cosmetic surgery,

Kam et al. (2022) note that cosmetic surgery is carried out with the aim of ameliorating dissatisfaction and low self-esteem with the ultimate goal being psychological improvement. Low self-esteem, therefore, can be conceptualized as an internal motivator present in those considering physical modifications as a means to increase psychological health.

There are a few external societal and environmental factors that can also play a significant role in one's desire to get cosmetic surgery. People who have experienced bullying and teasing with relation to their physical appearance report lower levels of satisfaction with their body (Jackson et al., 2012) which makes them more likely to engage in cosmetic surgery with the goal of reducing their body dissatisfaction (von Soest et al., 2006). In this instance, external factors and internal motivators seemingly compound to increase the likelihood of someone getting cosmetic surgery. In addition to this, the extent to which cosmetic surgery is socially accepted and prevalent in the environment, for instance in the form of advertisements or hearing about others' experiences, also increases the likelihood of someone undergoing cosmetic surgery (Walker et al., 2019). Additionally, with information about cosmetic surgery and ideal forms of beauty being so prevalent on social media, people today are more likely to desire to get cosmetic surgery due to a combination of excessive exposure to unattainable standards of beauty, widespread acceptance of cosmetic surgery and easy access to medical procedures. It is therefore important to consider in greater detail the mechanisms through which social media can influence one's motivation to undergo cosmetic surgery. While there are many different avenues of social comparison, this study will primarily focus on the comparison of appearance and physical beauty.

## CURRENT STUDY

Social media has recently become the primary and convenient means of social comparison. Notably, self-presentation on social media is mitigated by impression management which results in the presented images depicting a perfected, ideal image that is an exaggerated form of reality and often unattainable (Wang et al., 2017). Given that individuals' perceptions of themselves, including their self-esteem, are influenced by comparisons with others, exposure to the aforementioned ideal images can lead to a decrease in their self-esteem and subjective well-being (Liu et al., 2017). Moreover, social media, unlike other older forms of media, is easy to access and actively encourages user engagement which leads to people spending a lot of time on their platforms (Villanti et al., 2017). Being that the medium is primarily focused on appearance, users of social media often express the desire to present their “best self” on social media. This surge has led to an increase in studies centered around the impact of unrealistic body images and unachievable beauty ideals on users of social media (Jung et al., 2022).

Notably, there are conflicting studies on the relationship between social media use and negative self-esteem and body image (Saiphoo & Vahedi, 2019). In a meta-analysis of 121 samples exploring the relationship between self-esteem and use of social networking sites, Saiphoo and Vahedi (2019) noted that the overall effect size indicated a small, negative relationship. An explanation for these mixed results might lie in the wide range of social media usage with people using social media for diverse purposes and motivations. For instance, problematic or addictive social media usage indicated a stronger negative relationship than normal social media use. Regardless, social media provides an accessible avenue through which people can learn about beauty ideals and engage in social comparison in order to form their concept of self-esteem. Literature using sociocultural theories similarly posits that societal and

cultural factors inform ideas of beauty that are transmitted through social media. Moreover, social media also serves a role in normalizing the idea that the body is inherently malleable, and that body work is both normal and required (Jung et al., 2022) which might partially explain the increased rates of plastic surgery in recent years.

The results of the current study are important as they will contribute to the literature on factors that motivate appearance enhancement cosmetic surgery. These concepts are important to study as the number of cosmetic procedures being performed are likely to increase according to existing trends (American Society of Plastic Surgeons, 2020). The current study aims to explore these relationships through a mediation model, with self-esteem mediating the relationship between social media usage and desire to get cosmetic surgery. If the proposed mediation model is supported, it lends credence to the introduction of psychological screening before potential patients of cosmetic surgery undergo such procedures. Understanding how social media impacts one's desire to get cosmetic surgery is also important as studies note that people whose motivation in seeking out cosmetic enhancements to look like someone they have seen on social media are unlikely to experience positive outcomes (Lee et al., 2009). With screening procedures in place, it can also be used to identify patients who are most likely to benefit from the procedure and provide alternatives for patients who might experience negative psychological outcomes.

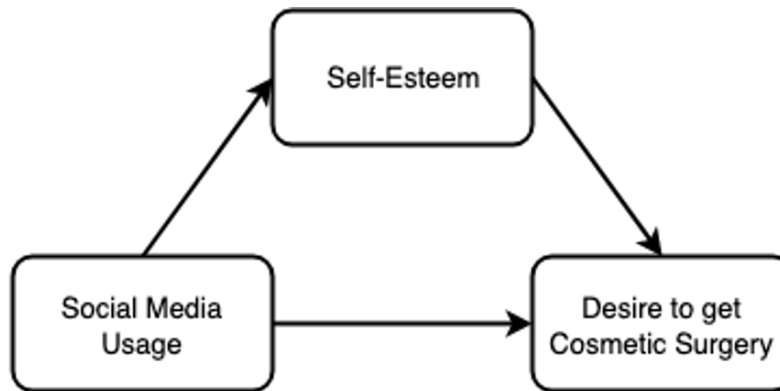
#### Proposed Hypotheses:

**H<sub>1</sub>:** Social media usage will positively predict the desire to get cosmetic surgery

**H<sub>2</sub>:** Social media usage will negatively predict self-esteem.

**H<sub>3</sub>:** Self-esteem will negatively predict desire to get cosmetic surgery.

**H<sub>4</sub>:** Self-esteem will mediate the relationship between social media usage and desire to get cosmetic surgery.



*Figure 1.* Standardized regression coefficients ( $\beta$ ) for the relationship between social media usage and desire to get cosmetic surgery as mediated by self-esteem.

## PILOT STUDY

### Methods

The purpose of this pilot study was to test the mediating effect of self-esteem on the relationship between social media usage and desire to get cosmetic surgery. The pilot study provided foundational information that is being incorporated into the current proposed study to better understand the factors that influence one's desire to get cosmetic surgery.

### Participants

For the pilot study, 340 (153 men, 187 women, Median age = 34, SD age = 11.44) participants were recruited using Amazon Mechanical Turk online platform. Data were collected by following the APA guidelines.

### Materials

Participants completed the Rosenberg Self-Esteem Scale (Rosenberg, 1979), General Social Media Usage Subscale from MTUAS (Rosen et al., 2013) and Acceptance of Cosmetic



Surgery Scale (Henderson-King & Henderson-King, 2005) to test the proposed mediation model. It was hypothesized that self-esteem would mediate the relationship between social media usage and the desire to get cosmetic surgery.

## Results & Discussion

The pilot study found that the proposed mediation model was not significant and that most of the variance in one's desire to get cosmetic surgery is explained by social media usage  $F(2, 303) = 6.84, p < .001$ . The study did not find a significant relationship with self-esteem as a mediator between social media usage and desire to get cosmetic surgery. The relationship between social media usage and self-esteem was not significant,  $r(333) = .05, p = .33$ , though the relationship between self-esteem and desire to get cosmetic surgery was significant  $r(304) = .11, p < .05$ . Notably, most of the variance in the individual's desire to get cosmetic surgery was explained by their social media usage  $r(333) = .21, p < .001$ .

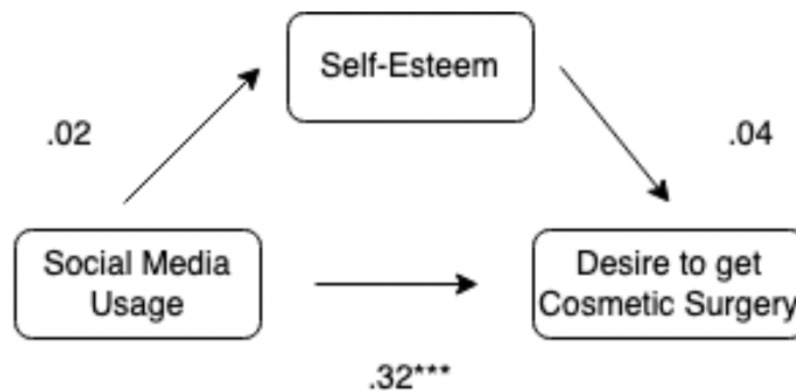


Figure 2. Standardized regression coefficients ( $\beta$ ) for the relationship between social media usage and desire to get cosmetic surgery as mediated by self-esteem as analyzed in the pilot study. \*\*\* $p < .001$ .

The results of the pilot study are not in line with previous literature which states that social media usage predicts changes in an individual's self-esteem (Saiphoo et al., 2020). Similarly, self-esteem did not predict one's desire to get cosmetic surgery. This result was similarly not in line with previous literature which has noted a negative correlation between self-esteem and desire to get cosmetic surgery (Chen et al., 2019). An interesting result found in exploratory analysis during the pilot study also found that attitudes towards cosmetic surgery have seemingly shifted to a more positive direction. Previous studies exploring societies attitudes towards cosmetic surgery have noted that attitudes are generally negative (Tam et al., 2012) such that recipients of cosmetic surgery report feeling judged by others and subject to negative stereotypes (Saxena, 2013). The shift to positive attitudes about cosmetic procedures in this sample might have been because the sample of the pilot study was primarily from the United States, where attitudes around this topic are generally less negative (Tam et al., 2012). Based on the pilot study, the current study aims to gather nuanced information by using state (appearance-based) self-esteem instead of traditional trait-based self-esteem as it may be a more appropriate mediator in our theoretical framework.

## METHODS

### **Participants**

The study recruited 322 participants. The sample of participants included 92 females (28.7%) and 229 males (71.3%). The age of participants ranged from 21 to 61 years old with average being 32.85 years of age ( $SD = 5.54$ ). A majority of participants self-identified their ethnicity as White/Caucasian (92.2%), followed by 3.7% who identified as Asian, 3.1% who identified as Black/African American, 1.2% identifying as Hispanic or Latinx, and 0.3% identifying as American Indian. Most participants identified Catholicism (71.4%) as their current

religion, followed by Muslim for 8.4% of the participants, and Protestant for 5.3% of participants. 37.2% percent of the sample reported having a master's degree as their highest level of education followed by 36.9% having a bachelor's degree whereas 23.8% reported having some graduate studies.

Based on self-reported income, the majority of participants (50.1%) was classified as average middle class (\$50,000 - \$114,999 per year), followed by 22.9% as upper middle class (\$115,000 - \$249,999 per year), and 18.5% as working class (\$25,000 - \$49,999 per year). Most participants reported having had breast lift (37.1%) done before, followed by other cosmetic procedures like breast augmentation (29.3%), eyelid surgery (29%), buttock lift (26.2%), and abdominoplasty (24.9%). 6.5% of participants reported never having had a cosmetic procedure before. The sample also reported that they were considering breast lift (31.8%) and face lift (31.8%) as the procedures they were most likely to consider in the future. Other popular cosmetic procedures being considered in the future included buttock augmentation (26.5%), breast augmentation (26.2%), and eyelid surgery (24.6%). 7.8% of participants reported that they were not considering any cosmetic procedure in the future. Gender differences in the history of cosmetic surgery and future consideration of cosmetic surgery is further exemplified in Table 1 and Table 2.

The sample was selected from the United States of America population using random sampling through the service Amazon Mechanical Turk (MTurk) and participants received \$0.05 for their participation. The only restriction placed was that participants must be 18 years or older and currently living in the United States. All APA ethical guidelines were followed in gaining consent, providing a debriefing, and keeping the responses of all participants anonymous. IRB approval was also obtained at Fort Hays State University.

**Table 1.** Gender differences in history of cosmetic surgery

Domain	Male (n)	% of male participants	Female (n)	% of female participants
1. Average number of procedures chosen	2.40	-	2.10	-
2. Liposuction	49	21.40%	25	27.17%
3. Breast Augmentation	73	31.88%	22	53.26%
4. Breast Lift	88	38.43%	33	35.87%
5. Abdominoplasty	64	27.95%	25	69.56%
6. Buttock Augmentation	62	27.07%	11	11.96%
7. Buttock Lift	61	26.64%	18	19.56%
8. Eyelid Surgery	68	29.69%	25	27.17%
9. Face Lift	46	20.09%	31	33.69%
10. Rhinoplasty	25	10.92%	7	7.61%
11. None	16	6.99%	5	5.43%
12. Prefer not to say	1	0.44%	1	1.08%

**Table 2.** Gender differences in future consideration of cosmetic surgery

Domain	Male (n)	% of male participants	Female (n)	% of female participants
1. Average number of procedures chosen	2.39	-	1.87	-
2. Liposuction	50	21.83%	19	20.65%
3. Breast Augmentation	60	26.20%	23	25%

4. Breast Lift	74	32.31%	31	33.69%
5. Abdominoplasty	51	22.27%	18	19.56%
6. Buttock Augmentation	69	30.13%	17	18.48%
7. Buttock Lift	54	23.58%	17	18.48%
8. Eyelid Surgery	65	28.38%	13	14.13%
9. Face Lift	80	34.93%	21	22.83%
10. Rhinoplasty	19	8.30%	9	9.78%
11. None	22	9.60%	3	3.26%
12. Prefer not to say	5	2.18%	1	1.08%

---

## Measures

### MTUAS- General Social Media Usage Subscale

The General Social Media Usage scale developed by Rosen et al. (2013) is a 9-item scale scored using a 10-point likert scale where one indicates the frequency of the action indicated in the question statement. Each item is scored between 1-10 (1= Never; 10 = All the time).

Example items on the scale are based on how often participants “post status updates” or “check posts on social media”. The reliability of the subscale in the MTUAS: General Social Media Usage is very high with a Cronbach’s alpha of .97. The validity of the scale was calculated by comparing it to the numbers of hours spent using social media and technology and all correlations were found to be significant  $r = .51, p < 0.05$ . The subscale was also compared to measures regarding the levels of anxiety related to not being able to use social media and technology, the correlations were positive and significant,  $r = .19$  to  $.44, p < 0.001$ . The subscale also tested for established trends across genders and found results that supported previously

established results. For instance, men report higher levels of engagement than women, those older in age report lower levels of social media usage than younger people. Reliability for the social media usage measure was assessed using Cronbach's alpha. Results indicate strong reliability for the overall scale ( $\alpha = .89$ ).

### **State Self-Esteem Scale**

The SSES (Heatherton & Polivy, 1991) measures the short-lived or state-based changes in self-esteem and can measure self-esteem in the following areas: academic, performance, social, appearance, and general self-esteem. The scale has 20 items that are measured on a 5-point scale based on level of agreeability with the statement (1= not at all; 5= extremely). Of these items, the appearance subscale, consisting of 6 items will be used in this study. Examples items in this subscale includes, "I feel satisfied with how my body looks right now" or "I feel that other respect and admire me". The reliability of the instrument is good with a Cronbach's alpha at  $\alpha = .92$  and inter-item correlation ranging between  $r = .41$  to  $.74$ . The convergent validity was measured by comparing the scale against the Multiple Affect Adjective Check List (Zuckerman et al., 1983), Janis-Field Feelings of Inadequacy Scale (Janis & Field, 1956), State-Trait Anxiety Inventory (Spielberger, 1983), and the Self-Consciousness Scale (Fenigstein et al., 1975) with results showing correlations ranging between  $r = .34$  to  $.78$ ,  $p < 0.05$ . Reliability for the state self-esteem measure was assessed using Cronbach's alpha. Results indicate strong reliability for the overall scale ( $\alpha = .80$ ) and the appearance subscale used in the analysis ( $\alpha = .62$ ) showed adequate reliability.

### **Acceptance of Cosmetic Surgery Scale**

The ACSS was devised by Henderson-King and Henderson-King (2005) to measure attitudes regarding and desire to get cosmetic surgery. The scale has 15 items that is measured on

a 7-point likert scale that indicates the level of agreement with the question statement (1 = Strongly disagree; 7 = Strongly agree). The scale measures three main factors that inform attitudes about cosmetic surgery: intrapersonal factors, social factors and consider factors. For the purpose of this study, the subscale *consider* is a straightforward assessment of the likelihood of the participant to consider cosmetic surgery in the future. Examples of the items in this subscale include, “I have sometimes thought about having cosmetic surgery” and “If I could have a surgical procedure done for free, I would consider trying cosmetic surgery”. The reliability of the instrument is quite good with the Cronbach’s alpha at  $\alpha > .85$  in all three dimensions: Interpersonal, consider and social domains. For the consider domain in particular, the Cronbach’s alpha ranged between .86 and .92. The validity of the scale was tested using the convergent and discriminant validity. The convergent validity was measured by comparing the scale to other instruments that measure similar concepts and domains. The correlations were significant across domains and genders. To test discriminant validity the instrument was compared to scales of self-esteem and confidence and found no significant correlations. The authors of the scale also evaluated the content, criterion, and construct validity over the course of four studies. Reliability for the cosmetic surgery measure was assessed using Cronbach’s alpha. Results indicate strong reliability for the overall scale ( $\alpha = .89$ ) and good reliability for the *consider* subscale used in the analysis ( $\alpha = .72$ ).

### **Psychological Well-Being Scale**

The scale was included in the study, not to test the hypothesis, but rather to provide a more comprehensive picture of the relationship between other main variables in the study. The additional well-being scale will also serve as a measure against participants potentially providing skewed information. The psychological well-being scale was developed by Ryff and Keyes

(1995) as a measure of positive functioning. The scale measure 6 distinct dimensions of wellness: autonomy, environmental mastery, positive relations with others, purpose in life, self-acceptance, and personal growth. The scale has 18 items that are measured on a 7-point likert scale where respondents rate how strongly they agree or disagree with the statements (1= Strongly agree; 7= Strongly disagree). The reliability of the 18-item version of the test is reported to have an internal consistency alpha ranging from .93 to .86. The test-retest reliability over six weeks was shown to range from .88 to .81, suggesting a high degree of consistency and sufficient reliability. The convergent validity was measured by comparison with Rosenberg's Self-esteem scale (1979), the Life Satisfaction Index (Neugarten et al. 1961) and Zung's Depression scale (Zung, 1965) with all correlations being significant in the expected direction. Reliability for the psychological wellbeing measure was assessed using Cronbach's alpha. Results for this sample indicate very weak reliability for the overall scale ( $\alpha = .30$ ).

## RESULTS

Hypothesis testing was accomplished through the use of SPSS Version 29 software. The data were screened using the explore function of SPSS to assess for missing data and outliers, and to examine skewness and kurtosis. Data that appeared to be missing at random were filled in with mean values. Examination of the boxplots indicated no outliers. The histograms indicated that the distribution shape for the variables of interest may be normally distributed, however, the distributions were further assessed by examining the values for kurtosis and skewness. Skewness (-2 to +2) and kurtosis scores (-7 to +7) were within the acceptable range for all main variables and subscales used in the study. The wider range of skewness and kurtosis scores were determined acceptable based on guidelines and recommendations made in prior research (Byrne, 2009; Hair et al., 2009).



**Table 3.** Descriptive Statistics and bivariate correlations of variables.

Variables	1	2	3	Mean	SD	Skewness	Kurtosis
13. Time spent on social media	1	.148**	.214**	6.08	1.66	-.06 - .14	-.27 - .27
14. Appearance self-esteem	.148**	1	.204**	3.56	.51	.53 - .17	1.77 - .27
15. Consideration of cosmetic surgery	.214**	.204**	1	5.21	.69	-1.37 - .14	7.17 - .27

\*\* $p < 0.01$

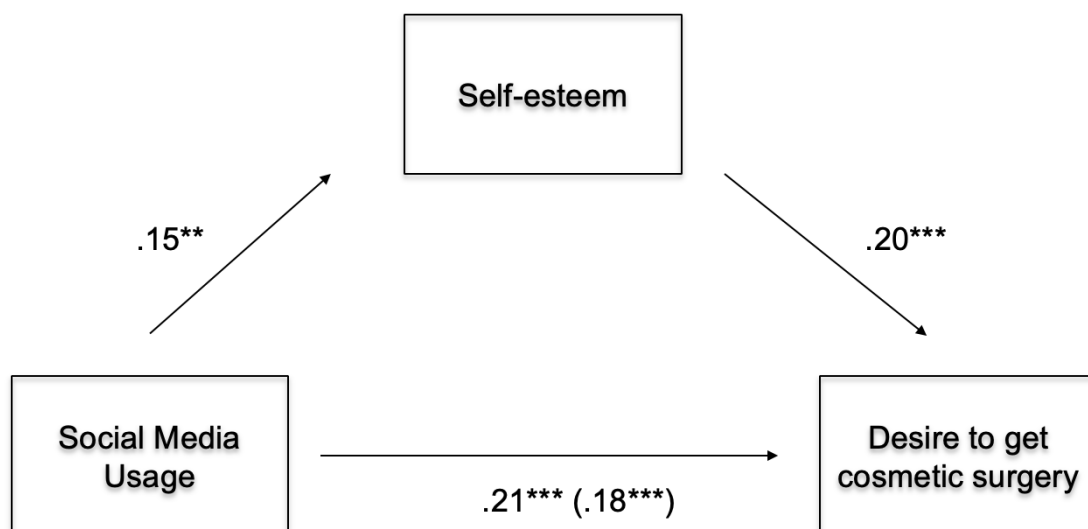
### Mediation Model Hypothesis Testing

A mediation analysis was conducted to examine the hypothesized relationship between social media usage and desire to get cosmetic surgery where self-esteem serves as a mediator. The mediation analysis was conducted using the Baron and Kenny's (1986) method to examine a model of social media usage predicting consideration of cosmetic surgery with self-esteem as a mediator. The first step of the model involves the independent variable predicting the dependent variable, followed by the independent variable predicting the mediating variable and the final step in which the independent and mediating variable both predict the dependent variable. Analysis in the current study began with social media usage predicting desire to get cosmetic surgery and the relationship between social media usage and desire to get cosmetic surgery was found to be significant  $\beta = .21$ ,  $r(320) = .21$ ,  $t(320) = 3.92$ ,  $p < .001$ , such that the more time people spent on social media, the more likely they were to consider cosmetic surgery.

To test the second step, social media usage was used to predict self-esteem. The relationship was significant, but in the opposite direction than was hypothesized. It was significant but in a positive direction,  $\beta = .15$ ,  $r(320) = .15$ ,  $t(320) = 2.69$ ,  $p < .01$ . To test the

third step, the relationship between self-esteem and desire to get cosmetic surgery was examined. Results found that the relationship was not negative as hypothesized, but rather positively predicted the relationship between self-esteem and desire to get cosmetic surgery,  $\beta = .20$ ,  $r(320) = .20$ ,  $t(320) = 3.72$ ,  $p < .001$ .

For the final step, both social media usage and self-esteem were used as predictors to predict desire to get cosmetic surgery. Results suggest that self-esteem did not serve as a full mediator in the hypothesized model,  $\beta = .18$   $F(2, 319) = 13.15$ ,  $p < .001$ . The beta value of social media usage as a predictor decreased from  $\beta = .21$  to  $\beta = .19$  when self-esteem was entered into the model as a predictor as well. This indicates that self-esteem is a partial predictor in the proposed model.



*Figure 3.* Standardized regression coefficients ( $\beta$ ) for the relationship between social media usage and desire to get cosmetic surgery as mediated by self-esteem. The standardized regression coefficient ( $\beta$ ) between social media usage and desire to get cosmetic surgery, controlling for

self-esteem, is in parentheses.

\*\*\* $p < .001$ , \*\* $p < .01$ .

Data on psychological wellbeing was tested in relation to consideration of cosmetic surgery as a way to clarify the findings shown between the main variables in the mediation model. A bivariate correlation was performed to test the relationship between psychological wellbeing and consideration of cosmetic surgery. Results indicate that the correlation between psychological wellbeing and consideration of cosmetic surgery is not statistically significant,  $r(320) = -.09, p = 0.85$ . Unlike self-esteem, psychological well-being is not a significant predictor of consideration of cosmetic surgery, though unlike self-esteem, it does seem to show a non-significant negative correlation.

Further exploratory analysis was conducted to examine whether there were gender differences in consideration of cosmetic surgery. A bivariate correlational analysis shows that consideration of cosmetic surgery is positively and significantly correlated with self-esteem and social media usage. In men, consideration of cosmetic surgery was significantly correlated with self-esteem  $r(227) = .17, p < .05$  and social media usage,  $r(227) = .18, p < .01$ ; women showed similar results with self-esteem,  $r(90) = .29, p < .01$ , and social media usage  $r(90) = .28, p < .01$ . The Pearson's  $r$  values of women were slightly larger than those of men despite their smaller sample size in the participant distribution.

## DISCUSSION

The proposed mediation model was not supported by the data analysis in the hypothesized direction though some of the relationships discovered in this study are supported by previously established research. When a full mediation analysis was performed, it was found that self-esteem did not fully mediate the relationship between social media usage and desire to

get cosmetic surgery. Analysis showed that all variables had a significant and positive relationship with one another, and that self-esteem served as a partial mediator in the model. This indicates that while self-esteem plays a role in the consideration of cosmetic surgery, it only accounts for some, but not all of the relationship between social media usage and consideration of cosmetic surgery. Thus, social media usage, even when mediated by self-esteem, still seems to account for whether one considers cosmetic surgery as an option.

The first hypothesis that social media usage would positively predict one's desire to get cosmetic surgery was supported. The relationship was significant and positive, and this result was similarly found in the pilot study. This result is consistent with existing literature which has linked exposure in the form of social media to an increased consideration of cosmetic surgery (Furnham & Levitas, 2012). The results indicate that exposure to images on social media and engagement with these images is what prompts or inspires people to get cosmetic procedures done. This outcome seems to lend credit to the theory of social comparison as the basis for considering cosmetic procedures as an option, though it is difficult to distinguish which aspect of social comparison is the deciding factor. It may be that people are not engaging in as much upwards social comparison as was initially hypothesized, since if they were, increase in social media usage would be negatively correlated with self-esteem. Future studies using social comparison as their theoretical foundation can further probe this relationship for more precise results.

The second hypothesis, which proposed that social media usage would negatively predict self-esteem, was not supported. Rather, it was found that there was a positive relationship between social media usage and self-esteem, such that the more amount of time one spent on social media the more likely they were to have higher self-esteem. This contradicting result may

be reflecting mixed results regarding the relationship between social media usage and self-esteem found in the literature. As noted before, the way in which social media is used in studies is varied and often produces mixed reactions in individuals. For instance, social media used for maintaining and creating relationships increases feelings of connectedness (Ostic et al., 2021) whereas when it is used to digitally alter images of oneself to post on platforms it is correlated with low self-esteem (Chen et al., 2019). Studies seem to support this notion with inconclusive mixed pattern relationships and meta-analyses consistently finding small, yet significant differences in the impact of social media on self-esteem (Saiphoo & Vahedi, 2019). In fact, research has begun to support the notion that while small groups of participants might experience the negative or positive effects of social media, the true relationship between social media usage and self-esteem is contingent upon individual patterns of susceptibilities, like existing low self-esteem, and social media usage (Cingel et al., 2022). Thus, even if people were engaging in upwards social comparison on social media, which leads to a decrease in self-esteem, it could be that their self-esteem may not have been impacted significantly enough to produce noticeable changes in how they perceive themselves. Another avenue to explore why social media usage may predict an increase in self-esteem may be explained better by examining the impact of varying degrees of self-esteem within the context of social comparison theory. When a person with high self-esteem engages in upwards social comparison via images on social media, instead of lowering their self-esteem it may serve as an ideal of what they wish to accomplish rather than an indicator of what they are presently lacking.

Another reason for this positive relationship between social media usage and self-esteem could be because of the distribution of self-esteem score ( $M = 3.56$ ,  $SD = .50$ ) in the current participant sample. With most participants scoring upwards of 3 on a 5-point likert scale, a

majority of the sample indicated having high self-esteem and as noted earlier. Individuals who have existing high self-evaluations of themselves are less likely to find their self-esteem negatively impacted when engaging in upwards social comparison on social media (Perera et al., 2021). This logic can similarly be reflected in how changes in self-esteem might induce behavior change, i.e., consideration of cosmetic surgery, as was predicted in the third hypothesis. The third hypothesis predicted a negative relationship between self-esteem and desire to get cosmetic surgery which was not supported as the relationship depicted in the data was positive. This positive relationship may be due to a variety of factors, not the least of which is the gender distribution of the sample. Research consistently shows that women not only tend to place greater importance in their appearance, but that they also display greater levels of body dissatisfaction compared to men (Quittkat et al., 2019). With a sample of predominantly men, it is possible that the higher self-esteem scores may be attributed to gender rather than any impact of social media usage. Another reason why self-esteem may be positive correlated with consideration of cosmetic surgery is how self-esteem may relate to the decision-making process. It's also important to consider that participants whose self-esteem is very low may not even feel the motivation to seek out a modification procedure like cosmetic surgery. Rather, there may be a certain threshold in self-esteem where a person may feel dissatisfied with their appearance to enact change, but not enough that it may produce inaction due to hopelessness.

The mediation result, supported by previous research and the pilot study, seems to imply that more so than self-esteem, it is social media that is a notable motivating factor behind one's consideration of cosmetic surgery. It was proposed that the reason one might choose to get cosmetic surgery was because they were prompted by their low self-esteem to engage in behavior modification as a means of self-improvement (Taniguchi & Hubbard, 2020). Contrary

to this, analysis of the current data showed that social media usage was correlated with higher levels of self-esteem. Practically, rather than considering cosmetic surgery as a way to alleviate negative evaluations of oneself, it could instead be considered a means of self-improvement. This idea is further supported by results from the pilot and current study which, compared to past research showing negative attitudes (Saxena, 2013), indicate that present sentiments regarding cosmetic surgery are more positive today. These results are supported in some studies which report more positive body image evaluation in post cosmetic surgery groups compared to pre-surgery whereas self-esteem and appearance satisfaction did not show any significant changes (von Soest et al., 2009).

Overall, while the results show that self-esteem seems to be a partial mediator of the relationship between social media usage and cosmetic surgery, it is important to account for important limitations while extrapolating results from the data. The primary of these concerns is that the gender distribution of the sample, 71.3% of it, is male. This poses challenges when considering recent statistics which show that around 92% of cosmetic procedures are performed on women (American Society of Plastic Surgeons, 2020). The validity of the findings from this study are, therefore, contentious and future studies in this area should aim for an equal gender distribution in the sample or more targeted sampling to better discern attitudes surrounding cosmetic surgery based on gender.

### **Strengths and Limitations**

The study is important in that it contributes to the paucity of research exploring the motivators behind one's desire to get cosmetic surgery. Moreover, by allowing a diverse range of participants, the study can provide results that are generalizable to the general US adult population. Notably, most research concerning cosmetic surgery is either performed exclusively

with female population or with an equal distribution of male and female participants. The participants in the current study, on the other hand, are mostly male which provides unique insight into their attitudes regarding cosmetic surgery and how their motivators may differ from female participants.

It is also important to consider the limitations of the current study to further explore the relationship between social media, self-esteem, and consideration of cosmetic surgery in future studies. For one, the gender distribution of the sample in the current study was skewed heavily in favor of male participants, with 71% of participants identifying as male and 29% as female. The great difference in gender distribution is of particular importance in this study since research shows that approximately 92% of all cosmetic procedures are done on women (American Society of Plastic Surgeons, 2020). Research shows that gender also determines the reason why people continue to use social media, with men using social media to gain general information about the world and women using it to retain close relationships and attain social information in particular (Krasnova et al., 2017). Women are also more likely to engage in appearance comparison (Leahey et al., 2007) and internalization of beauty ideals (Jung et al., 2022) which could make them more likely to seek out cosmetic surgery as a way of image enhancement. With most of the sample identifying as male, we have to be cautious when generalizing the results obtained from this study.

Another potential limitation of this study was the conceptualization of social media usage. As noted earlier, usage of social media is varied and multifaceted which makes it difficult to measure when trying to capture its' adverse effects on self-esteem. Future studies in this area should measure social media in terms of the user's level of engagement in an effort to capture how affected they are by constant upwards social comparisons. It will also be important to



distinguish usage of social media for leisure, wherein most upwards social comparison occurs (Ozimek et al., 2023), from practical usage of social media, wherein the priority may be to form and retain social relationships, network with people, attain information etc.

Future studies concerning the motivators behind cosmetic surgery should also consider the role of cultural and social factors and what role they may play in one's consideration of cosmetic surgery. Despite general belief that western standards are the predominant beauty ideal, research supports that what one values as an important feature of beauty is often defined by culture which leads to differing aesthetic preferences when pursuing cosmetic surgery (Arian et al., 2023). Psychosocial factors like appearance conversations with peers, perceptions of teasing (Nerini et al., 2014) and even social acceptance (von Soest et al., 2006) of cosmetic surgery are viable predictors that may influence one's desire to undergo cosmetic surgery. Research in this area should also consider a pre- and post-surgery study design to better measure the salient factors that motivate the decision, and the reaction to the procedure after the fact.

## **Implications**

The purpose of this study was to explore the motivations behind cosmetic surgery through the lens of social comparison theory. The results produced from this study contribute to the dearth of research in the area exploring psychological and societal factors that contribute to one's decision to get cosmetic surgery. A clinical implication of this study is connected to the results found in the pilot study which showed that one's desire to get cosmetic surgery is predicted by how much they engage with social media. It is important to consider this through the lens of how internalization of ideals presented in social media can impact self-esteem. The current study showed that social media usage was correlated with high levels of self-esteem, which may indicate that exposure to beauty ideals of social media platforms may instead serve as

a form of inspiration for people rather than an unattainable benchmark. In this way, people may treat social media as a positive means to gain inspiration about what they want to achieve. As noted earlier, rather than participants experiencing a decrease in self-esteem through upwards social comparison, they may use information from social media to guide their own self-improvement. Despite this, practitioners in the mental health and medical field should be aware that unattainable ideals of beauty shown on social media can contribute to a client's decision to undergo a cosmetic procedure. Providers of cosmetic procedures should be careful in how they convey information to potential patients about what the cosmetic procedures is meant to accomplish.

Since the results of this study show that low self-esteem is not a significant factor in one's consideration of cosmetic surgery for most people, there is little concern that people may be using cosmetic procedures as a 'quick fix' to alleviate their low self-esteem. Psychological wellbeing, therefore, it not a deciding factor when one is considering aesthetic enhancement. This does not, however, alleviate the possibility of decision regret after the cosmetic procedure, especially if people are seeking out cosmetic procedures with the intention of looking like other people on social media. With current research showing that negative self-esteem does not play a large role in one's consideration of cosmetic surgery, it will be important for future studies to consider the role of external social and cultural factors and how they may impact this decision-making process.

In addition to this, results from this study and the pilot study indicate a rather positive view of cosmetic procedures compared to the negative attitudes that used to be directed towards fake beauty (Saxena, 2013). This increased acceptance of cosmetic procedures could explain why self-esteem does not seem to play a large role in the considering cosmetic surgery since the

judgment of society or stigma surrounding it is no longer considered as a barrier to self-enhancement. While this new accepting attitude is beneficial for adults, it needs to be given consideration by providers when taking into account the increasing number of youths that are opting for cosmetic procedures after consuming trends and beauty ideals on social media. Research has consistently noted that the adolescent desire for cosmetic surgery is rooted in dissatisfaction with appearance, a desire to fit in with peers and proliferation of cosmetic enhancements in social media (Rohrich & Cho, 2018). Providers, parents, and guardians need to be aware of these reasons adolescents may want to engage in such permanent forms of body modification and the possible psychological outcomes both negative and positive.

It should also be noted that it is difficult to generalize these results since the sample was mostly male, and a majority of recipients of cosmetic procedures are women. Regardless, the current study shows that while social media usage may predict one's consideration of cosmetic surgery, it may no longer be through the pathway of low self-esteem. It would still be important for providers of cosmetic procedures to keep in mind the external and internal pressures one might face in order to attain and/or retain their ideas of ideal beauty. Understanding these factors better can likely enhance service delivery and reduce patient dissatisfaction or 'decision regret' post cosmetic surgery.

## **Conclusion**

The current study showed positive and significant relationship between all the variables with self-esteem serving as a partial mediator in the relationship between social media usage and consideration of cosmetic surgery. Overall, the findings from this study provide insight into the potential motivators behind why someone may get cosmetic surgery. The study also provides

clinical and social implications for individuals who consider cosmetic surgery as a medical tool for aesthetic enhancement.

## REFERENCES

- American Society of Plastic Surgeons. (2020). *2020 Plastic Surgery Statistics Report* (PLASTIC SURGERY STATISTICS REPORT).
- Ando, K., Giorgianni, F. E., Danthinne, E. S., & Rodgers, R. F. (2021). Beauty ideals, social media, and body positivity: A qualitative investigation of influences on body image among young women in Japan. *Body Image*, 38(1), 358–369.  
<https://doi.org/10.1016/j.bodyim.2021.05.001>
- Andreassen, C. S., Pallesen, S., & Griffiths, M. D. (2017). The relationship between addictive use of social media, narcissism, and self-esteem: Findings from a large national survey. *Addictive Behaviors*, 64, 287–293. <https://doi.org/10.1016/j.addbeh.2016.03.006>
- Andreassen, C., Torsheim, T., Brunborg, G., & Pallesen, S. (2012). Development of a Facebook Addiction Scale. *Psychological Reports*, 110, 501–517.  
<https://doi.org/10.2466/02.09.18.PR0.110.2.501-517>
- Arian, H., Alroudan, D., Alkandari, Q., & Shuaib, A. (2023). Cosmetic Surgery and the diversity of cultural and ethnic perceptions of facial, breast, and gluteal aesthetics in women: A comprehensive review. *Clinical, Cosmetic and Investigational Dermatology*, 16, 1443–1456. <https://doi.org/10.2147/CCID.S410621>
- Barker, E. T., & Bornstein, M. H. (2010). Global self-esteem, appearance satisfaction, and self-reported dieting in early adolescence. *The Journal of Early Adolescence*, 30(2), 205–224.  
<https://doi.org/10.1177/0272431609332936>
- Bonell, S., Barlow, F. K., & Griffiths, S. (2021). The cosmetic surgery paradox: Toward a contemporary understanding of cosmetic surgery popularisation and attitudes. *Body Image*, 38, 230–240. <https://doi.org/10.1016/j.bodyim.2021.04.010>

- Byrne, B. M. (2009). *Structural Equation Modeling With AMOS: Basic Concepts, Applications, and Programming, Second Edition* (2nd edition). Routledge.
- Cafri, G., Yamamiya, Y., Brannick, M., & Thompson, J. K. (2005). The influence of sociocultural factors on body image: A meta-analysis. *Clinical Psychology: Science and Practice, 12*(4), 421–433. <https://doi.org/10.1093/clipsy.bpi053>
- Chambers, J. A., & Ray, P. D. (2009). Achieving growth and excellence in medicine: The case history of armed conflict and modern reconstructive surgery. *Annals of Plastic Surgery, 63*(5), 473. <https://doi.org/10.1097/SAP.0b013e3181bc327a>
- Chen, J., Ishii, M., Bater, K. L., Darrach, H., Liao, D., Huynh, P. P., Reh, I. P., Nellis, J. C., Kumar, A. R., & Ishii, L. E. (2019). Association between the use of social media and photograph editing applications, self-esteem, and cosmetic surgery acceptance. *JAMA Facial Plastic Surgery, 21*(5), 361–367. <https://doi.org/10.1001/jamafacial.2019.0328>
- Cingel, D. P., Carter, M. C., & Krause, H.-V. (2022). Social media and self-esteem. *Current Opinion in Psychology, 45*, 101304. <https://doi.org/10.1016/j.copsyc.2022.101304>
- Corcoran, K., Epstude, K., Damisch, L., & Mussweiler, T. (2011). Fast similarities: Efficiency advantages of similarity-focused comparisons. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 37*(5), 1280–1286. <https://doi.org/10.1037/a0023922>
- Crusius, J., Corcoran, K., & Mussweiler, T. (2022). Social comparison: a Review of theory, research, and Applications. In *Theories of social psychology* (pp. 165–187). Wiley.
- Dapp, L. C., Krauss, S., & Orth, U. (2023). Testing the bottom-up and top-down models of self-esteem: A meta-analysis of longitudinal studies. *Journal of Personality and Social Psychology, 124*(5), 1111–1131. <https://doi.org/10.1037/pspp0000444>

Dunning, D., & Hayes, A. F. (1996). Evidence for egocentric comparison in social judgment. *Journal of Personality and Social Psychology*, 71(2), 213–229.

<https://doi.org/10.1037/0022-3514.71.2.213>

Ellison, N., Steinfield, C., & Lampe, C. (2007). The benefits of facebook “friends:” Social capital and college students’ use of online social network sites. *Journal of Computer-Mediated Communication*, 12, 1143–1168. [https://doi.org/10.1111/j.1083-](https://doi.org/10.1111/j.1083-6101.2007.00367.x)

[6101.2007.00367.x](https://doi.org/10.1111/j.1083-6101.2007.00367.x)

Fenigstein, A., Scheier, M. F., & Buss, A. H. (1975). Public and private self-consciousness: Assessment and theory. *Journal of Consulting and Clinical Psychology*, 43(4), 522–527.

<https://doi.org/10.1037/h0076760>

Furnham, A., & Levitas, J. (2012). Factors that motivate people to undergo cosmetic surgery. *The Canadian Journal of Plastic Surgery*, 20(4), 47-50.

Gentile, B., Grabe, S., Dolan-Pascoe, B., Twenge, J., & Wells, B. (2009). Gender differences in domain-specific self-esteem: A meta-analysis. *Review of General Psychology*, 13.

<https://doi.org/10.1037/a0013689>

Gerber, J. P., Wheeler, L., & Suls, J. (2018). A social comparison theory meta-analysis 60+ years on. *Psychological Bulletin*, 144(2), 177–197. <https://doi.org/10.1037/bul0000127>

Gilbert, P. (2001). Evolution and social anxiety: The role of attraction, social competition, and social hierarchies. *Psychiatric Clinics of North America*, 24(4), 723–751.

[https://doi.org/10.1016/S0193-953X\(05\)70260-4](https://doi.org/10.1016/S0193-953X(05)70260-4)

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2009). *Multivariate Data Analysis* (7th edition). Pearson.

- Heatherton, T. F., & Polivy, J. (1991). Development and validation of a scale for measuring state self-esteem. *Journal of Personality and Social Psychology*, 60(6), 895–910.  
<https://doi.org/10.1037/0022-3514.60.6.895>
- Henderson-King, D., & Henderson-King, E. (2005). Acceptance of cosmetic surgery: Scale development and validation. *Body Image*, 2(2), 137–149.  
<https://doi.org/10.1016/j.bodyim.2005.03.003>
- Jackson, AlunC., Dowling, NickiA., Honigman, RobertaJ., Francis, KateL., & Kalus, AllanM. (2012). The experience of teasing in elective cosmetic surgery patients. *Behavioral Medicine*, 38(4), 129–137. <https://doi.org/10.1080/08964289.2012.703976>
- Janis, I. L., & Field, P. B. (1956). A behavioral assessment of persuasibility: consistency of individual differences. *Sociometry*, 19(4), 241–259. <https://doi.org/10.2307/2785766>
- Jiang, S., & Ngien, A. (2020). The effects of instagram use, social comparison, and self-esteem on social anxiety: A survey study in Singapore. *Social Media + Society*, 6(2), 2056305120912488. <https://doi.org/10.1177/2056305120912488>
- Jones, H. E., Cruz, C., Stewart, C., & Losken, A. (2023). Decision regret in plastic surgery: A summary. *Plastic and Reconstructive Surgery – Global Open*, 11(6), e5098.  
<https://doi.org/10.1097/GOX.00000000000005098>
- Jung, J., Barron, D., Lee, Y.-A., & Swami, V. (2022). Social media usage and body image: Examining the mediating roles of internalization of appearance ideals and social comparisons in young women. *Computers in Human Behavior*, 135, 107357.  
<https://doi.org/10.1016/j.chb.2022.107357>



- Kam, O., Na, S., La Sala, M., Tejada, C. I., & Koola, M. M. (2022). The psychological benefits of cosmetic surgery. *The Journal of Nervous and Mental Disease*, 210(7), 479.  
<https://doi.org/10.1097/NMD.0000000000001477>
- Krasnova, H., Veltri, N. F., Eling, N., & Buxmann, P. (2017). Why men and women continue to use social networking sites: The role of gender differences. *The Journal of Strategic Information Systems*, 26(4), 261–284. <https://doi.org/10.1016/j.jsis.2017.01.004>
- Leahey, T. M., Crowther, J. H., & Mickelson, K. D. (2007). The frequency, nature, and effects of naturally occurring appearance-focused social comparisons. *Behavior Therapy*, 38(2), 132–143. <https://doi.org/10.1016/j.beth.2006.06.004>
- Liu, Q.-Q., Zhou, Z.-K., Yang, X.-J., Niu, G.-F., Tian, Y., & Fan, C.-Y. (2017). Upward social comparison on social network sites and depressive symptoms: A moderated mediation model of self-esteem and optimism. *Personality and Individual Differences*, 113, 223–228. <https://doi.org/10.1016/j.paid.2017.03.037>
- Lundy, D. E., Schenkel, M. B., Akrie, T. N., & Walker, A. M. (2010). How important is beauty to you? The development of the desire for aesthetics Scale. *Empirical Studies of the Arts*, 28(1), 73–92. <https://doi.org/10.2190/EM.28.1.e>
- McIntyre, Kevin P., & Eisenstadt, D. (2011). Social comparison as a self-regulatory measuring stick. *Self & Identity*, 10(2), 137–151. <https://doi.org/10.1080/15298861003676529>
- Morrison, T., Kalin, R., & Morrison, M. (2004). Body-image evaluation and body-image investment among adolescents: A test of sociocultural and social comparison theories. *Adolescence*, 39, 571–592.

- Nerini, A., Matera, C., & Stefanile, C. (2014). Psychosocial predictors in consideration of cosmetic surgery among women. *Aesthetic Plastic Surgery*, 38(2), 461–466.  
<https://doi.org/10.1007/s00266-014-0294-6>
- Neugarten, B. L., Havighurst, R. J., & Tobin, S. S. (1961). The measurement of life satisfaction. *Journal of Gerontology*, 16, 134–143. <https://doi.org/10.1093/geronj/16.2.134>
- Ostic, D., Qalati, S. A., Barbosa, B., Shah, S. M. M., Galvan Vela, E., Herzallah, A. M., & Liu, F. (2021). Effects of social media use on psychological well-being: a mediated model. *Frontiers in Psychology*, 12.  
<https://www.frontiersin.org/articles/10.3389/fpsyg.2021.678766>
- Ozimek, P., Lainas, S., Bierhoff, H.-W., & Rohmann, E. (2023). How photo editing in social media shapes self-perceived attractiveness and self-esteem via self-objectification and physical appearance comparisons. *BMC Psychology*, 11(1), 99.  
<https://doi.org/10.1186/s40359-023-01143-0>
- Padley, R. H., & Di Pace, B. (2021). Touch-ups, rejuvenation, re-dos and revisions: remote communication and cosmetic surgery on the rise. *Aesthetic Plastic Surgery*, 45(6), 3078–3080. <https://doi.org/10.1007/s00266-021-02235-1>
- Perera, A. D. C., Samarakoon, S. M. a. K., & Wanninayake, W. M. C. B. (2021). Theoretical linkage between theories of social Comparison, brand congruence, self-concept and social identity. *Asian Journal of Advanced Research and Reports*, 15(3), 19–28.  
<https://doi.org/10.9734/ajarr/2021/v15i330377>
- Quittkat, H. L., Hartmann, A. S., Düsing, R., Buhlmann, U., & Vocks, S. (2019). Body dissatisfaction, importance of appearance, and body appreciation in men and women over the lifespan. *Frontiers in Psychiatry*, 10, 864. <https://doi.org/10.3389/fpsyg.2019.00864>

- Rohrich, R. J., & Cho, M.-J. (2018). When is teenage plastic surgery versus cosmetic surgery okay? Reality versus hype: A systematic review. *Plastic and Reconstructive Surgery*, 142(3), 293. <https://doi.org/10.1097/PRS.0000000000004630>
- Rosen, L. D., Whaling, K., Carrier, L. M., Cheever, N. A., & Rokkum, J. (2013). The media and technology usage and attitudes scale: An empirical investigation. *Computers in Human Behavior*, 29(6), 2501–2511. <https://doi.org/10.1016/j.chb.2013.06.006>
- Rosenberg, M. (1979). *Conceiving the self*. New York: Basic Books, 1979.
- Ross, C., Orr, E. S., Sisic, M., Arseneault, J. M., Simmering, M. G., & Orr, R. R. (2009). Personality and motivations associated with Facebook use. *Computers in Human Behavior*, 25(2), 578–586. <https://doi.org/10.1016/j.chb.2008.12.024>
- Royal College of Surgeons. (n.d.). *What is Cosmetic Surgery?* Royal College of Surgeons. Retrieved November 12, 2023, from <https://www.rcseng.ac.uk/patient-care/cosmetic-surgery/what-is-cosmetic-surgery/>
- Ryff, C., & Keyes, C. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69, 719–727. <https://doi.org/10.1037/0022-3514.69.4.719>
- Saiphoo, A. N., Dahoah Halevi, L., & Vahedi, Z. (2020). Social networking site use and self-esteem: A meta-analytic review. *Personality and Individual Differences*, 153, 109639. <https://doi.org/10.1016/j.paid.2019.109639>
- Saiphoo, A. N., & Vahedi, Z. (2019). A meta-analytic review of the relationship between social media use and body image disturbance. *Computers in Human Behavior*, 101, 259–275. <https://doi.org/10.1016/j.chb.2019.07.028>

- Saxena, P. (2013). Trading and managing stigma: women's accounts of breast implant surgery. *Journal of Contemporary Ethnography*, 42(3), 347–377.  
<https://doi.org/10.1177/0891241612472056>
- Schettino, G., Capasso, M., & Caso, D. (2023). The dark side of #bodypositivity: The relationships between sexualized body-positive selfies on Instagram and acceptance of cosmetic surgery among women. *Computers in Human Behavior*, 140, 107586.  
<https://doi.org/10.1016/j.chb.2022.107586>
- Schmuck, D., Karsay, K., Matthes, J., & Stevic, A. (2019). “Looking Up and Feeling Down”. The influence of mobile social networking site use on upward social comparison, self-esteem, and well-being of adult smartphone users. *Telematics and Informatics*, 42, 101240.  
<https://doi.org/10.1016/j.tele.2019.101240>
- Sobanko, J. F., Dai, J., Gelfand, J. M., Sarwer, D. B., & Percec, I. (2018). Prospective Cohort Study Investigating Changes in Body Image, Quality of Life, and Self-Esteem Following Minimally Invasive Cosmetic Procedures. *Dermatologic Surgery*, 44(8), 1121.  
<https://doi.org/10.1097/DSS.0000000000001523>
- Spielberger, C. D. (1983). *State-Trait Anxiety Inventory for Adults Manual*. Consulting Psychologists Press. <https://doi.org/10.1037/t06496-000>
- Swami, V. (2009). Body appreciation, media influence, and weight status predict consideration of cosmetic surgery among female undergraduates. *Body Image*, 6(4), 315–317.  
<https://doi.org/10.1016/j.bodyim.2009.07.001>
- Tam, K.-P., Ng, H., Kim, Y.-H., Yeung, V., & Cheung, F. (2012). Attitudes toward cosmetic surgery patients: the role of culture and social contact. *The Journal of Social Psychology*, 152, 458–479. <https://doi.org/10.1080/00224545.2011.637997>

- Taniguchi, E., & Ebesu Hubbard, A. S. (2020). Effects of physical appearance social comparisons and perceived attainability of an ideal body on body dissatisfaction and weight-management behaviors among young Japanese women. *Japanese Psychological Research*, 62(4), 227–240. <https://doi.org/10.1111/jpr.12264>
- Villanti, A. C., Johnson, A. L., Ilakkuvan, V., Jacobs, M. A., Graham, A. L., & Rath, J. M. (2017). Social media use and access to digital technology in US young adults in 2016. *Journal of Medical Internet Research*, 19(6), e7303. <https://doi.org/10.2196/jmir.7303>
- von Soest, T., Kvale, I. L., Roald, H. E., & Skolleborg, K. C. (2009). The effects of cosmetic surgery on body image, self-esteem, and psychological problems. *Journal of Plastic, Reconstructive & Aesthetic Surgery*, 62(10), 1238–1244. <https://doi.org/10.1016/j.bjps.2007.12.093>
- von Soest, T., Kvale, I. L., Skolleborg, K. C., & Roald, H. E. (2006). Psychosocial factors predicting the motivation to undergo cosmetic surgery. *Plastic and Reconstructive Surgery*, 117(1), 51. <https://doi.org/10.1097/01.prs.0000194902.89912.fl>
- Walker, C. E., Krumhuber, E. G., Dayan, S., & Furnham, A. (2021). Effects of social media use on desire for cosmetic surgery among young women. *Current Psychology*, 40(7), 3355–3364. <https://doi.org/10.1007/s12144-019-00282-1>
- Wang, J.-L., Wang, H.-Z., Gaskin, J., & Hawk, S. (2017). The mediating roles of upward social comparison and self-esteem and the moderating role of social comparison orientation in the association between social networking site usage and subjective well-being. *Frontiers in Psychology*, 8. <https://www.frontiersin.org/articles/10.3389/fpsyg.2017.00771>

- White, J. B., Langer, E. J., Yariv, L., & Welch, J. C. (2006). Frequent social comparisons and destructive emotions and behaviors: The dark side of social comparisons. *Journal of Adult Development, 13*(1), 36–44. <https://doi.org/10.1007/s10804-006-9005-0>
- Wilson, K., Fornasier, S., & White, K. M. (2010). Psychological predictors of young adults' use of social networking sites. *Cyberpsychology, Behavior, and Social Networking, 13*(2), 173–177. <https://doi.org/10.1089/cyber.2009.0094>
- Wood, J. V. (1989). Theory and research concerning social comparisons of personal attributes. *Psychological Bulletin, 106*(2), 231–248. <https://doi.org/10.1037/0033-2909.106.2.231>
- Zuckerman, M., Lubin, B., & Rinck, C. M. (1983). Construction of new scales for the Multiple Affect Adjective Check List. *Journal of Behavioral Assessment, 5*(2), 119–129. <https://doi.org/10.1007/BF01321444>
- Zung, W. W. (1965). A self-rating depression scale. *Archives of General Psychiatry, 12*(1), 63–70. <https://doi.org/10.1001/archpsyc.1965.01720310065008>

## APPENDICES

### Appendix A: Demographic Questions

- 1) What is your age?
- 2) What is your preferred gender identity?  
Men  
Women  
Other \_\_\_\_\_
- 3) Which racial group or groups do you consider yourself to be in? You may choose more than one option.  
White  
Black or African American  
American Indian or Alaska Native  
Asian  
Native Hawaiian or Pacific Islander  
Hispanic/Latino  
Other, please specify: \_\_\_\_\_
- 4) What is your highest level of education? Check one.  
High school  
Associates degree  
B.A./B.S.  
Some graduate studies  
Masters  
Other
- 5) Which economic class group do you identify with based on annual income?  
Lower class (less than \$25,000)  
Working class (\$25,000 - \$49,999)  
Average middle class (\$50,000 - \$114,999)  
Upper middle class (\$115,000 - \$249,999)  
Upper class (\$250,000 or more)
- 6) Which cosmetic procedures have you done before? You may choose more than one option.  
Liposuction (fat removal procedure)

Breast Augmentation

Breast Lift

Abdominoplasty (“tummy tuck”; removal of fat/skin from abdomen)

Buttock Augmentation

Buttock Lift

Eyelid Surgery

Face Lift

Rhinoplasty (“nose job”; changing the shape of the nose)

Buttock Augmentation

Buttock Lift

Other, please specify: \_\_\_\_\_

- 7) Are you considering any of these procedures in the future? You may choose more than one option.

Liposuction (fat removal procedure)

Breast Augmentation

Breast Lift

Abdominoplasty (“tummy tuck”; removal of fat/skin from abdomen)

Buttock Augmentation

Buttock Lift

Eyelid Surgery

Face Lift

Rhinoplasty (“nose job”; changing the shape of the nose)

Buttock Augmentation

Buttock Lift

Other, please specify: \_\_\_\_\_



## Appendix B: Acceptance of Cosmetic Surgery Scale (ACSS)

1. It makes sense to have minor cosmetic surgery rather than spending years feeling bad about the way you look.

Strongly Disagree	Somewhat Disagree	Disagree a little	Neutral	Agree a little	Somewhat Agree	Strongly Agree
----------------------	----------------------	----------------------	---------	-------------------	-------------------	-------------------

2. Cosmetic surgery is a good thing because it can help people feel better about themselves.

Strongly Disagree	Somewhat Disagree	Disagree a little	Neutral	Agree a little	Somewhat Agree	Strongly Agree
----------------------	----------------------	----------------------	---------	-------------------	-------------------	-------------------

3. In the future, could end up having some kind of cosmetic surgery.

Strongly Disagree	Somewhat Disagree	Disagree a little	Neutral	Agree a little	Somewhat Agree	Strongly Agree
----------------------	----------------------	----------------------	---------	-------------------	-------------------	-------------------

4. People who are unhappy with their physical appearance should consider cosmetic surgery as one option.

Strongly Disagree	Somewhat Disagree	Disagree a little	Neutral	Agree a little	Somewhat Agree	Strongly Agree
----------------------	----------------------	----------------------	---------	-------------------	-------------------	-------------------

5. If cosmetic surgery can make someone happier with the way they look, then they should try it.

Strongly Disagree	Somewhat Disagree	Disagree a little	Neutral	Agree a little	Somewhat Agree	Strongly Agree
----------------------	----------------------	----------------------	---------	-------------------	-------------------	-------------------

6. If I could have a surgical procedure done for free I would consider trying cosmetic surgery.

Strongly Disagree	Somewhat Disagree	Disagree a little	Neutral	Agree a little	Somewhat Agree	Strongly Agree
----------------------	----------------------	----------------------	---------	-------------------	-------------------	-------------------

7. If I knew there would be no negative side effects or pain, I would like to try cosmetic surgery.

Strongly Disagree	Somewhat Disagree	Disagree a little	Neutral	Agree a little	Somewhat Agree	Strongly Agree
----------------------	----------------------	----------------------	---------	-------------------	-------------------	-------------------

8. I have sometimes thought about having cosmetic surgery.

Strongly Disagree	Somewhat Disagree	Disagree a little	Neutral	Agree a little	Somewhat Agree	Strongly Agree
----------------------	----------------------	----------------------	---------	-------------------	-------------------	-------------------

9. I would seriously consider having cosmetic surgery if my partner thought it was a good idea.

Strongly Disagree	Somewhat Disagree	Disagree a little	Neutral	Agree a little	Somewhat Agree	Strongly Agree
----------------------	----------------------	----------------------	---------	-------------------	-------------------	-------------------

10. I would never have any kind of plastic surgery.

Strongly Disagree	Somewhat Disagree	Disagree a little	Neutral	Agree a little	Somewhat Agree	Strongly Agree
----------------------	----------------------	----------------------	---------	-------------------	-------------------	-------------------

11. I would think about having cosmetic surgery in order to keep looking young.

Strongly Disagree	Somewhat Disagree	Disagree a little	Neutral	Agree a little	Somewhat Agree	Strongly Agree
----------------------	----------------------	----------------------	---------	-------------------	-------------------	-------------------

12. If it would benefit my career I would think about having plastic surgery.

Strongly Disagree	Somewhat Disagree	Disagree a little	Neutral	Agree a little	Somewhat Agree	Strongly Agree
----------------------	----------------------	----------------------	---------	-------------------	-------------------	-------------------

13. I would seriously consider having cosmetic surgery if I thought my partner would find me more attractive.

Strongly Disagree	Somewhat Disagree	Disagree a little	Neutral	Agree a little	Somewhat Agree	Strongly Agree
----------------------	----------------------	----------------------	---------	-------------------	-------------------	-------------------

14. Cosmetic surgery can be a big benefit to people's self-image.

Strongly Disagree	Somewhat Disagree	Disagree a little	Neutral	Agree a little	Somewhat Agree	Strongly Agree
----------------------	----------------------	----------------------	---------	-------------------	-------------------	-------------------

15. If a simple cosmetic surgery procedure would make me attractive to other, I would think about it.

Strongly Disagree	Somewhat Disagree	Disagree a little	Neutral	Agree a little	Somewhat Agree	Strongly Agree
----------------------	----------------------	----------------------	---------	-------------------	-------------------	-------------------

### **Appendix C: The Media and Technology Usage and Attitudes Subscale**

This scale uses a 10-point frequency scale for items 1–9 (with scoring in parentheses):

- Never (1)
- Once a month (2)
- Several times a month (3)
- Once a week (4)
- Several times a week (5)
- Once a day (6)
- Several times a day (7)
- Once an hour (8)
- Several times an hour (9)
- All the time (10)

How often do you do each of the following activities on social networking sites such as Facebook, Instagram, Snapchat etc.?

- 1) Check your Social Media page or other social networks.
- 2) Check your Social Media page from your smartphone.
- 3) Check Social Media at work or school.
- 4) Post status updates.
- 5) Post photos.
- 6) Browse profiles and photos.
- 7) Read postings.
- 8) Comment on postings, status updates, photos, etc.
- 9) Click “Like” to a posting, photo, etc.

## Appendix D: State Self-Esteem Scale (SSES)

Please record your answers based on the following scale:

- 1= Not at all
- 2= A little bit
- 3= Somewhat
- 4= Very much
- 5= Extremely

1. I feel confident about my abilities.
2. I am worried about whether I am regarded as a success or failure.\*
3. I feel satisfied with the way my body looks right now.
4. I feel frustrated or rattled about my performance.\*
5. I feel that I am having trouble understanding things that I read.\*
6. I feel that others respect and admire me.
7. I am dissatisfied with my weight.\*
8. I feel self-conscious.\*
9. I feel as smart as others.
10. I feel displeased with myself.\*
11. I feel good about myself.
12. I am pleased with my appearance right now.
13. I am worried about what other people think of me.
14. I feel confident that I understand things.
15. I feel inferior to others at this moment.\*
16. I feel unattractive.\*
17. I feel concerned about the impression I am making.\*
18. I feel that I have less scholastic ability right now than others.\*
19. I feel like I'm not doing well.\*
20. I am worried about looking foolish. \*

\*\*Items are reverse coded\*

## Appendix E: Psychological Wellbeing Scale

Instructions: Circle one response below each statement to indicate how much you agree or disagree.

Answer Format: 1 = strongly agree; 2 = somewhat agree; 3 = a little agree; 4 = neither agree or disagree; 5 = a little disagree; 6 = somewhat disagree; 7 = strongly disagree.

1. I like most parts of my personality.
2. When I look at the story of my life, I am pleased with how things have turned out so far.
3. Some people wander aimlessly through life, but I am not one of them.
4. The demands of everyday life often get me down.
5. In many ways I feel disappointed about my achievements in life.
6. Maintaining close relationships has been difficult and frustrating for me.
7. I live life one day at a time and don't really think about the future.
8. In general, I feel I am in charge of the situation in which I live.
9. I am good at managing the responsibilities of daily life.
10. I sometimes feel as if I've done all there is to do in life.
11. For me, life has been a continuous process of learning, changing, and growth.
12. I think it is important to have new experiences that challenge how I think about myself and the world.
13. People would describe me as a giving person, willing to share my time with others.
14. I gave up trying to make big improvements or changes in my life a long time ago.
15. I tend to be influenced by people with strong opinions.
16. I have not experienced many warm and trusting relationships with others.
17. I have confidence in my own opinions, even if they are different from the way most other people think.
18. I judge myself by what I think is important, not by the values of what others think is important.

## Appendix F: IRB Exemption Letter



**FORT HAYS STATE  
UNIVERSITY**

*Forward thinking. World ready.*

---

**OFFICE OF SCHOLARSHIP AND SPONSORED PROJECTS**

DATE: February 13, 2024

TO: Noriene Verma  
FROM: Fort Hays State University IRB

STUDY TITLE: [2158750-1] Exploring Psychological Factors behind Consideration of  
Cosmetic Surgery through the Lens of Social Comparison Theory

IRB REFERENCE #: 24-0060  
SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS  
DECISION DATE: February 13, 2024

REVIEW CATEGORY: Exemption category # 2

Thank you for your submission of New Project materials for this research study. The departmental human subjects research committee and/or the Fort Hays State University IRB/IRB Administrator has determined that this project is EXEMPT FROM IRB REVIEW according to federal regulations.

Please note that any changes to this study may result in a change in exempt status. Any changes must be submitted to the IRB for review prior to implementation. In the event of a change, please follow the Instructions for Revisions at <http://www.fhsu.edu/academic/gradschl/irb/>.

The IRB administrator should be notified of adverse events or circumstances that meet the definition of unanticipated problems involving risks to subjects. See <http://www.hhs.gov/ohrp/policy/AdvEvtGuid.htm>.

We will put a copy of this correspondence on file in our office. Exempt studies are not subject to continuing review.

If you have any questions, please contact Keith Bremer at [IRB@fhsu.edu](mailto:IRB@fhsu.edu). Please include your project title and reference number in all correspondence with this committee.

**Fort Hays State University  
FHSU Scholars Repository  
Non-Exclusive License Author Agreement**

I hereby grant Fort Hays State University an irrevocable, non-exclusive, perpetual license to include my thesis ("the Thesis") in *FHSU Scholars Repository*, FHSU's institutional repository ("the Repository").

I hold the copyright to this document and agree to permit this document to be posted in the Repository, and made available to the public in any format in perpetuity.

I warrant that the posting of the Thesis does not infringe any copyright, nor violate any proprietary rights, nor contains any libelous matter, nor invade the privacy of any person or third party, nor otherwise violate FHSU Scholars Repository policies.

I agree that Fort Hays State University may translate the Thesis to any medium or format for the purpose of preservation and access. In addition, I agree that Fort Hays State University may keep more than one copy of the Thesis for purposes of security, back-up, and preservation.

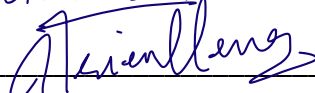
I agree that authorized readers of the Thesis have the right to use the Thesis for non-commercial, academic purposes, as defined by the "fair use" doctrine of U.S. copyright law, so long as all attributions and copyright statements are retained.

To the fullest extent permitted by law, both during and after the term of this Agreement, I agree to indemnify, defend, and hold harmless Fort Hays State University and its directors, officers, faculty, employees, affiliates, and agents, past or present, against all losses, claims, demands, actions, causes of action, suits, liabilities, damages, expenses, fees and costs (including but not limited to reasonable attorney's fees) arising out of or relating to any actual or alleged misrepresentation or breach of any warranty contained in this Agreement, or any infringement of the Thesis on any third party's patent, trademark, copyright or trade secret.

I understand that once deposited in the Repository, the Thesis may not be removed.

Thesis: Exploring psychological factors behind consideration of cosmetic surgery through the lens of social comparison theory

Author: NORINE VERMA

Signature: 

Date: 4/26/2024