LUNDS UNIVERSITET

DEPARTMENT of PSYCHOLOGY

Acceptance of Cosmetic Enhancement and Association Between Self-Esteem, Well-Being and Cosmetic Procedures among Women

Emmanuelle Awad

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Supervisor: Una Tellhed

Abstract

Cosmetic procedures have been increasing in popularity over the past decade. Women make up the majority of consumers in this lucrative industry. In this study, acceptance of cosmetic enhancement, self-esteem and psychological well-being (PWB) were investigated in a sample of women.

The sample was composed of 237 participants with 31.2% having undergone a cosmetic procedure. Having had a cosmetic procedure compared to not (β=2.6), having higher self-esteem (β=1.3) and older age (β=0.1) were significantly associated with better PWB. Being married compared to single (β=-2.7) and having higher acceptance of cosmetic procedures (β=-0.2) were significantly associated with worse PWB. Self-esteem mediated the association between acceptance of cosmetic procedures and psychological well-being (27.9%).

These results help understand the association between cosmetic procedures and psychological variables, and clarify clinical implications overlapping aesthetic medicine and psychology.

Keywords: Cosmetic procedures, acceptance of cosmetic procedures, self-esteem, psychological well-being.

Acceptance of Cosmetic Enhancement and Association Between Self-Esteem, Well-Being and Cosmetic Procedures among Women

It is undeniable that physical beauty is one of the most esteemed traits in humans since the beginning of time. Appearance is the first thing we notice about others and the basis of our initial judgment of anyone we see. Although beauty trends vary from year to year, it is arguable that beauty standards are consistent and universal. Most of us aspire to be beautiful; while some enhance their features using makeup, others resort to more lasting ways such as cosmetic procedures. However, motivation to seek cosmetic enhancement can be attributed to reasons beyond the surface level of wanting to be attractive, but can extend to wanting to feel more confident and boosting self-esteem among other psychological variables (Furnham & Levitas, 2012). These means of cosmetic enhancement are practiced in almost all societies, from traditional Middle Eastern to liberal European countries; but the extent to which it is accepted and done openly is bound to vary (Gimlin, 2012). With that being said, the rising rate of people undergoing aesthetic enhancement intrigues probing about the psychological instigators of cosmetic procedures. This study focuses on investigating correlates of cosmetic procedures including acceptance of cosmetic procedures, self-esteem and psychological well-being (PWB) in a sample of women from different countries.

Overview on Cosmetic Procedures

While the popularity of cosmetic procedures has risen dramatically in the recent years, it has been a common practice for over 2000 years now (Krueger et al., 2013). Initially, techniques of cosmetic enhancement were used for reconstruction purposes that were of absolute necessity such as facial injuries that occurred during wars including fractured noses, but later on became non-essential desirable procedures (Dolsky, 1999). The major boom that caused cosmetic procedures to become prevalent and prominent was the then-innovative use of Botulinum Toxin type A to reduce the appearance of frown lines (Carruthers & Carruthers,

1992). Later on, during the early 2000s was when non-invasive or non-surgical cosmetic procedures such as filler injections, lasers and micro needles were introduced (Krueger et al., 2013). With the advancement of science, technology and medicine, it is certain that the future of cosmetic procedures involves innovation that will make aesthetic enhancement more effective, painless and lasting.

Cosmetic procedures, plastic surgery, aesthetic enhancement; concepts commonly used by people to describe the same measure: an operation performed by a medical professional on another with the aim of enhancing the appearance of a facial or bodily feature (“Cosmetic plastic surgery overview," n.d.). The most recent cosmetic procedures statistics reported a 7.4% increase in number of operations performed from 2018 to 2019 (International Society of Aesthetic Plastic Surgery, 2020). In 2019, the cosmetic procedures industry grossed an estimated $16.4 billion in the United States only (American Society of Plastic Surgeons, 2020). Some types of cosmetic procedures were found to have a direct effect on economical dynamics in the United States (Gordon et al., 2010). These studies evidently show the massive effect of cosmetic procedures on the individual and global level.

Cosmetic procedures can be distinctly classified into two different categories: surgical and nonsurgical procedures (Gerstner & Matarasso, 2008). Nonsurgical procedures are enhancement operations that are less invasive than surgical options; they require less recovery time and cause less scarring, on the other hand, surgical procedures require anesthesia, usually involve breaking of the skin, require a longer recovery time and may result in short-term or long-term physical implications (Sheikh et al., 2017). Furthermore, an important distinction exists between surgical and nonsurgical cosmetic procedures: the considerable difference in amount of procedures performed in each type. 11.3 million surgical cosmetic procedures were done in 2019 as opposed to 13.6 million nonsurgical cosmetic procedures (International Society of Aesthetic Plastic Surgery, 2020). Currently, the

most popular surgical cosmetic procedures are breast augmentation, liposuction and eyelid surgery while the most popular nonsurgical ones involve Botulinum Toxin, Hyaluronic Acid and hair removal (International Society of Aesthetic Plastic Surgery, 2020). The difference in amount of procedures performed is further accentuated when comparing the numbers between the top two procedures operated in each category: 1.7 million breast augmentation, 1.7 million liposuction, 6.2 Botulinum Toxin and 4.3 Hyaluronic Acid (International Society of Aesthetic Plastic Surgery, 2020). Additionally, the numbers of breast augmentation and liposuction procedures have dropped by 3.6% and 1.6$ while those of Botulinum Toxin and Hyaluronic Acid have increased by 2.9% and 15.7%, respectively, from 2018 to 2019 (International Society of Aesthetic Plastic Surgery, 2020). These recent statistics reflect the vast popularity and demand of nonsurgical cosmetic procedures at the present time. It is apparent that nonsurgical cosmetic procedures are becoming way more prevalent than surgical ones (International Society of Aesthetic Plastic Surgeons, 2011).

Cosmetic Procedures and Psychological Variables

The choice to publicly undergo and acceptance of cosmetic procedures is influenced by each society's perception and opinions about aesthetic enhancement (Bradbury, 1994). The effects of receiving cosmetic procedures are often assessed by evaluating psychosocial outcomes in studies, in order to determine if they have positive or negative repercussions (Honigman, Phillips & Castle, 2004). Additionally, standards of attractiveness and favorable physical appearance are heavily influenced by social factors (Sarwer & Magee, 2006). For these reasons, the results of the study will be interpreted within a social psychology framework, as both social and psychological factors are interrelated in the topic of undergoing cosmetic procedures. Social psychology theories will be referred to in order to analyze dissatisfaction with appearance and self-enhancement through cosmetic procedures that could be related to self-esteem, the way women monitor and maintain good physical

appearance by societal ideals, wanting to gain societal approval and feelings of being desirable by following beauty trends and desire to fit in and avoid rejection by being perceived as attractive, among other possible underlying factors associated with acceptance of cosmetic procedures, self-esteem and PWB.

Women and Cosmetic Procedures

Significant gender differences exist within receiving cosmetic procedures for aesthetic purposes, especially when preventing or attempting to reverse signs of aging. It is currently estimated that for every 1 man there are 10 women receiving facial cosmetic intervention to target aging signs such as wrinkles (Humble, 2018). Within the recent years, BT has been advertised as a preventative measure for women who wish to avoid signs of aging, which significantly boosted the market and demand for it (Berkowitz, 2017). This process was majorly promoted through mass media towards women, emphasizing the way women might look angry if they have wrinkles and spreading cultural values that women must always look happy and approachable (Brooks, 2017). Women who were exposed to images of other women who had cosmetic procedures done recorded a higher probability of receiving cosmetic procedures (Walker et al., 2019). Furthermore, interviews with women found that faces that have been enhanced through BT are now perceived by women especially as "normal" and "natural" as opposed to the regular state of one's face or body without BT injections (Berkowitz, 2017). A recent study reported that women were concerned with improving their appearance and self-esteem, seeking cosmetic clinics without a precise treatment in mind, which leaves physicians with the choice of selecting treatments such as BT (Abelsson & Willman, 2020). In this study, the main aim is to assess women's acceptance of cosmetic procedures, given the significantly higher prevalence of aesthetic enhancement among women as previously mentioned.

Acceptance of Cosmetic Procedures

Acceptance of cosmetic procedures is associated with multiple psychological factors including body image, having had a cosmetic procedure previously and the way the individual evaluates himself/herself (Lin, Raval & Lee, 2021). In a sample of Brazilian men and women, there was a relationship between acceptance of cosmetic procedures and life satisfaction, which was exclusive for women (Campana, Ferreira & Tavares, 2001). Being a woman and having higher emotional stability were also factors associated with higher probability of cosmetic procedures acceptance (Swami et al., 2009). Similarly, women were much more acceptant of cosmetic procedures than men in a different sample (Jovic et al., 2017). Also, being a woman was associated with acceptance of cosmetic procedures, but self-esteem wasn't in another study (Farshidfar, Dastjerdi & Shahabizadeh, 2013). A study evaluating only women's acceptance of cosmetic procedures found that it is influenced by social factors including body ideals and media pressure (Stefanile, Nerini & Matera, 2014). A different study yielded some interesting results: both men and women were more likely to accept non-invasive cosmetic procedures as opposed to invasive ones (Chiu & Chuang, 2017). Comparable results were found in another research that showed a higher rate of acceptance for minor cosmetic procedures with the majority of the sample believing that cosmetic procedures in general are good (Morait et al., 2019). Overall, it seems that women are more likely to accept cosmetic procedures across cultures while factors associated might differ. An earlier study conducted on young adult women linked lower self-esteem to a higher probability of undergoing cosmetic procedures, even if painful (Lennon & Rudd, 1994). In this study, the aim is to test if self-esteem is related to women's acceptance of cosmetic procedures.

Self-Esteem

Self-esteem can be defined as an individual's personal assessment of his or her own value (Orth & Robins, 2019). Multiple theories have formulated hypotheses about self-

esteem, such as the Terror Management Theory, which states that the purpose of self-esteem is a defense against anxiety produced from humans' knowledge that death is inevitable and this notion was titled "mortality salience" (Solomon, Greenberg & Pyszczynski, 1991). Mortality salience prompts individuals to maintain a high level of self-esteem, which can be derived from physical appearance and attractiveness (Goldenberg et al., 2000). According to an evolutionary perspective, self-esteem is associated with adaptation, meaning the adjustment of humans to their environment in order to improve their chances of survival and reproduction (Cheplick, 2020). For women specifically, self-esteem is hypothesized by evolutionary theories to be directly related to physical attractiveness, and sexual attractiveness, which increases probability of mating and reproduction (Wade, 2000).

Self-Esteem and Cosmetic Procedures

It is established in the literature that having high self-esteem is related to positive psychological outcomes while low self-esteem is associated with psychological distress and possible impairment (Heatherton & Wyland, 2003). Initial research about self-esteem and cosmetic procedures theorizes that women seeking aesthetic enhancement exhibit a typical level of general self-esteem that is inconsistent with self-esteem towards a specific body part (Burk, Zelen & Terino, 1985). Another review related physical attractiveness in general to self-esteem, concluding that improvements in appearance significantly improve individuals' self-esteem level (Patzer, 1997). Additionally, individuals who had high self-esteem reported higher satisfaction regarding their physical appearance (Lennon, Lillethun & Buckland, 1999). An experimental study involving one group seeking cosmetic procedures and another with individuals not getting cosmetic procedures found that both exhibited average self-esteem levels (Ferraro, Rossano & D'Andrea, 2005). Self-esteem levels of a group of patients seeking cosmetic procedures and another of reconstructive procedures patients were both lower than the self-esteem levels of the general population (Özgür, Tuncali & Gürsu, 1998).

Overall, it was suggested that self-esteem is notably related to individuals' evaluation of their appearance (Mendelson, White & Mendelson, 2001).

Increasing self-esteem is assumed to be the main motivator for receiving cosmetic procedures. Early studies have also suggested that self-esteem and undergoing cosmetic procedures are positively correlated, meaning that receiving cosmetic enhancement improved self-esteem (Figueroa, 2003). A study evaluated self-esteem before and after treatment using the Rosenberg Self-Esteem Scale (RSES) and found no significant changes post-procedure (Sobanko et al., 2018). As for a type of surgical cosmetic procedures, testing for self-esteem before and after surgery showed significantly positive improvement (Hashemi et al., 2019). Regarding motivation for seeking cosmetic procedures, level of self-esteem was not associated with desire to have cosmetic procedures nor did it predict it (Bradley, 2017). In another sample using the RSES, there was no significant difference in self-esteem between cosmetic surgery seekers and others who were not interested (Heidarzadeh et al., 2019). Likewise, women who underwent a surgical procedure to reduce eye drooping recorded higher self-esteem post-surgery (Sarcu & Adamson, 2017). Similar results were found in a more recent study where self-esteem didn't differ between individuals who wanted to have cosmetic procedures and those who didn't (Soroush, 2020). Yet, opposing findings exist in a different study where patients who wanted to undergo cosmetic surgery exhibited much lower self-esteem than those who didn't (Gracitelli, 2017).

Within the subject of cosmetic procedures, a previous analysis found that a higher self-esteem was associated with a better assessment of one's body, which was related to lower probability of seeking cosmetic procedures (Fatahi & Ahmadi, 2019). Also, patients who received BT injections to target eyelids exhibited higher quality of life and self-esteem scores (Tang, 2018). Positive improvements in self-esteem, depressive symptoms and body image were also witnessed after having underwent cosmetic enhancement and were

consistent for the next two years (Sarwer et al., 2008). In another study, it was found that self-esteem was the only variable that improved after undergoing cosmetic surgery, while psychological problems and appearance satisfaction didn't; however, the effect was small (von Soest et al., 2009). Yet, when evaluating self-esteem between individuals who wanted to get cosmetic procedures done and those who didn't, no difference in self-esteem levels nor psychopathological profiles was found (Ferraro, Rossano & D'Andrea, 2005), which can suggest that motivation to pursue cosmetic procedures is not necessarily low self-esteem and yet improvements in self-esteem can be detected for patients post-cosmetic procedures. Overall, previous studies have not been able to link low self-esteem with motivation to undergo cosmetic procedures but only with dissatisfaction with a certain feature of the individual's appearance (Milothridis, 2016).

Self-Esteem and Gender

Evidence suggests that a gender difference exists regarding self-esteem; men usually have higher self-esteem levels starting from adolescence until adulthood, however, this difference seems to decrease as people become older (Robins et al., 2002). A more recent cross-cultural study that involved 48 countries found that men displayed significantly higher levels of self-esteem across their life span (Bleidorn et al., 2016). Results from a meta-analysis about gender and self-esteem showed that gender differences decreased after late adolescence (Zuckerman, Li & Hall, 2016). Having said that, a research involving 171 countries that used the RSES showed that gender differences in self-esteem are inconsistent and are subject to sociocultural influences (Helwig & Ruprecht, 2017); therefore, it is difficult to establish universal results. Evidence that found cognitive and affective links between women's self-esteem and their bodies can explain this, which doesn't exist for men (Wade & Cooper, 1999).

Psychological Well-Being

PWB refers to a positive mental state that reflects on the individual's cognitions, behaviors and emotions. It is manifested by a functional social life and healthy affective condition (Winefield et al., 2012). High PWB is related to feelings of happiness, life satisfaction and better physiological health (Huppert, 2009). Following the suggestion of multiple theories of PWB, the common aspects were combined to form a six-factor model of PWB that is composed of six dimensions: Self-Acceptance, Positive Relations with Others, Autonomy, Environmental Mastery, Purpose in Life and Personal Growth (Ryff & Singer, 1996). Self-Acceptance is positively evaluating oneself, affirming one's past self and viewing oneself from a good perspective (Chamberlain & Haaga, 2001), which is considered central for a high PWB. Assessment on individuals suffering from psychological problems revealed that a positive correlation exists between self-acceptance and PWB, and should be considered in the context of mental health (MacInnes, 2006). Another study suggested that self-acceptance is associated with self-satisfaction, which contributes significantly to PWB (Garcia, Al Nima & Kjell, 2014). Positive Relations with Others refers to the ability of having functional, affectionate and empathetic interpersonal relationships including romantic relationships and friendships (Ryff & Singer, 1996); having successful and lasting relationships is a sign of high PWB. Early theoretical analyses suggested that social support overall had a positive effect on PWB and reduced psychological disturbances (Thoits, 1985). An older study evaluating the nature of the association between relationships and PWB actually found a gender difference: women were more likely to be involved in positive relationships causing less psychological distress, which translates into higher PWB due to positive social involvement (Umberson et al., 1996). One of the most impactful relationships in life is the parent-child relationship; it was found that a positive relationship with parents during the offspring's childhood was related to higher self-esteem and better PWB in young adulthood (Roberts & Bengtson, 1993). As for romantic relationships, happy relationships

including marriage and cohabitation were connected to positive PWB (Kim & McKenry, 2002) and unhappy marriages were associated with negative PWB (Williams, 2003). Literature review is limited in its ability to assess the effect of positive interactions on PWB, as many sources of social relationships exist and terminology in scientific studies differ, making it difficult to find a concrete relationship (Lincoln, 2000). Autonomy is an individual's ability to act with governance and agency over his/her life; someone who is autonomous is able to determine and regulate his/her behavior independently as well as adequately and accurately examine it (Ryff & Singer, 1996). Recent research showed that having high autonomy is an essential contributor to genuine and optimal PWB as it contributes to general awareness of life, ability to deal with adverse situations and being goal-directed (Chaika, 2020). Another study also found that autonomy and PWB positively correlated among a sample of young adults (De-Juanas, Bernal Romero & Goig, 2020). Higher autonomy was observed in individuals experiencing positive relationships with others as well as higher PWB, with females scoring higher on all three dimensions compared to men (García-Castilla et al., 2020). Furthermore, findings of a cross-cultural study showed that autonomy is a universal determinant of PWB, whether it is naturally promoted by certain societies or attributed certain values that make its effect relative on PWB (Chirkov, 2008). Environmental Mastery can be defined as the capacity to manipulate one's environment through behaviors in a way that promotes control and psychological health (Ryff, 1989). Individuals who score low on Environmental Mastery are incapable of changing, modifying or creating environments that favor their mental health, lack control over their surrounding and are unable to detect the available opportunities for improvement (Ryff, 1995). Purpose in Life is characterized by defined goals, structured plans and intentions to reach certain outcomes in life; this element indicates maturity and awareness of the meaning of life (Ryff & Singer, 1996). Older research found evidence suggesting a strong relationship between

having meaning in life and positive PWB (Zika & Chamberlain, 1992). Another study found that having meaning in life was related to better psychological health, with romantic relationships being sources of meaning (Kleftaras & Psarra, 2012); this can connect both Purpose in Life and Positive Relations with Others elements of PWB. Having meaning in life was also a predictor of good PWB, with different levels of meaning accordingly affecting PWB (Shek, 1992). The results were similar in a more recent study with a different population, where having meaning in life was related to Self-Acceptance, Environmental Mastery and Positive Relations dimensions of PWB (García-Alandete, 2015). Personal Growth refers to the continuous intention of developing and improving oneself, openness to facing obstacles in order to reach certain expansion and success as an individual (Ryff & Singer, 1996). For a sample of adolescents and college students, higher personal growth levels were associated with positive PWB and less psychological problems (Ayub & Iqbal, 2012). A different study showed some interesting results: the association between Personal Growth PWB dimension and subjective well-being was in part mediated by having meaning in life (Freitas et al., 2018). Based on the studies available, it can be concluded that different dimensions are interrelated and form a global perspective on PWB.

Psychological Well-being and Cosmetic Procedures

The relationship between cosmetic enhancement and PWB was investigated in a sample of patients before and after the procedure; it was found that pre-operation distress related to PWB existed while post-operation a more positive PWB was recorded (Di Mattei et al., 2015). Another study confirmed that undergoing cosmetic procedures decreases psychological distress (Shridharani et al., 2010), which is reflective of PWB post-operation. A longitudinal analysis of cosmetic procedures patients consisted of evaluating individuals 3 months and 12 months after undergoing aesthetic operations and found significant psychological improvement for both groups (Moss & Harris, 2009). The previous study is

limited in the aspect of not knowing if positive PWB actually lasted for more than a year, while another study found evidence that improvement in PWB only lasted for a limited time frame (Combina et al., 2018). Recent findings found a dramatic increase in PWB after having received a cosmetic procedure among a sample of married women specifically (Esmalian Khamseh & Nodargahfard, 2020), which could be of connection to the Positive Relations with Others dimension of PWB. The aim of the study is to explore the association between PWB and acceptance of cosmetic procedures.

Psychological Well-being and Gender

The literature offers various findings on gender differences in PWB. Initial research suggested that men and women are becoming more similar in terms of defining PWB and anticipated future changes in gender roles that will influence gender differences in PWB (Bryant & Veroff, 1982). An older longitudinal study evaluating PWB over the span of 9 years showed that women had more negative PWB when compared to men, with PWB remaining stable over the duration of the analysis (Costa et al., 1987). The distinctions in dimensions of PWB are in line with typical and traditional gender stereotypes, such as women having better PWB when it comes to affective elements (Roothman, Kirsten & Wissing, 2003). Having said that, other sources reviewing PWB found no significant gender differences (Huppert, Baylis & Keveme, 2005). However, with the propagation of feminist views and promotion of women's rights while highlighting their issues, changes in PWB started becoming more apparent for women (Saunders & Kashubeck-West, 2006). Overall, results are conflicting when it comes to PWB and gender, especially that other interacting factors exist such as age (Huppert, 2009). Another variable that was found to influence PWB among men and women is relationship status: unmarried men were more likely to exhibit negative PWB as opposed to unmarried women (Marks, 1996).

Theoretical Background

Self-Verification Theory

Self-verification theory was developed by William Swann and notes that individuals seek to be validated by others and be perceived by others as they perceive themselves (Swann, 2011). Swann believed that individuals hold certain views and beliefs about themselves, which then guides their behaviors that are meant to elicit reactions from others that are consistent with their perception of themselves. This notion is considered to be the driving force behind self-enhancement including aesthetic enhancement. In the context of cosmetic procedures, self-verification theory would assume that individuals with positive views about themselves tend to act in a way that would confirm these positive views and those who are not satisfied with their appearance are more likely to act in a way that confirms their negative views of themselves. This theory emphasizes humans' need to maintain consistency and coherence between their internalized beliefs and the environment's beliefs about them. Originally, these views are formed based on observation: since childhood, humans notice how others treat them and base their self-views on these external evaluations. This theory is also important to discuss in this study, not only because it motivates self-enhancement, but also because Swann states that stability in self-views and the way it directs behavior is a key element for PWB, which a variable that was assessed. Additionally, it fits within the context of cosmetic procedures: according to this theory, people attempt to match their appearance with their self-views, which can reflect through clothing, cosmetic makeup and aesthetic enhancement that are labeled as "identity cues".

Objectification Theory

Historically, women are under significantly higher societal pressure than men, especially regarding appearance. This study was designed to evaluate the relationship between cosmetic procedures and psychological variables among women specifically as they are more likely to internalize societal opinions on their physical selves, which logically

implies that they are more likely than men to receive cosmetic procedures (Bartky, 2015). Social psychological perspectives hold the belief that an individual's self-concept is derived from the environment's views about and treatment of that individual (Gecas, 1982). For women, physical attractiveness is the basis for their social identity, as it promotes social benefits such as being perceived as trustworthy (Schmidt, Levenstein & Ambadar, 2021), economic such as better options for occupations and higher socioeconomic status (Anýžová & Matějů, 2018), and interpersonal benefits such as having a better probability of finding a suitable mate (Singh, 2004), among other things (Buss & Shackelfold, 2008). These findings show that society's response to physical attractiveness for women has a significant influence on different aspects of their life outcomes. The environment's pressure on women's appearance results in them gradually modifying their appearances to satisfy society's perception of their physical selves (Costanzo, 1992). As a result, women become preoccupied with their physical appearances and internalize societal perspectives of their appearance, which is called self-objectification (Frederickson & Roberts, 1997). Self-objectification affects women's self-esteem and PWB because it creates a cycle of constant monitoring to maintain a favorable appearance according to society. This study was designed to assess the association between cosmetic procedures, a buffer for self-objectification, and psychological variables including self-esteem and PWB among women.

Optimal Distinctiveness Theory

Optimal distinctiveness theory states that individuals have the need to be included in their social setting, and yet have competing motives to be different (Leonardelli, Pickett & Brewer, 2010). Human social membership is motivated by two essential needs: the need to belong to a social group and the need to be a different entity within that group. Both those needs are satisfied when the individual belongs to a group that is moderately inclusive and promotes distinctiveness. These needs affect how the individual views himself/herself as well

as others, which subsequently influences the social dynamics. Self-concept is influenced by the needs for inclusion and distinctiveness as membership to a specific group affects how an individual views himself/herself in terms of consistency with the group's traits, which in-turn can shape and modify self-concept (Turner et al., 1987). This causes the conflicting dynamics of inclusivity and distinctiveness: a group member needs to be similar to other group members in order to secure belongingness; this motivates shifts in self-concept to better fit in (Pickett, Bonner & Coleman, 2002). It can be inferred that individuals who have a higher need for inclusivity will change elements that make them too different from the group.

Attitudes and Behaviors

The association between intentionality and outcome behavior is examined by the Reasoned Action Theory (Yzer, 2013). It states that human behavior can be predicted based on individual attitudes. The behavior is directed by the outcome that the individual expects upon doing a certain action (Ajzen & Cote, 2008). In this study, acceptance of cosmetic procedures were investigated, which is why it is useful to discuss this theory to evaluate if attitudes influence behavior in the context of cosmetic procedures. Originally, the Reasoned Action Theory proposed a simply model of attitudes leading to certain behaviors, however, research later showed that attitudes were better predictors for some behaviors and not all (Wallace et al., 2005). Later, the theory was revised and it discussed other factors that are stronger predictors of behavior, such as intention. Intention refers to the extent that a person is willing to perform a certain behavior, determines how likely it is for someone to carry out a behavior and motivates a series of behaviors to attain the final goal (Ajzen, 1985). Another factor to consider is the expected outcome from acting a certain behavior; a study found that behavioral expectation was a stronger predictor of behavior compared to behavioral intention (Warshaw & Davis, 1985) while another study showed that they don't outperform each other when predicting behavior (Armitage & Conner, 2001). As the Reasoned Action Theory

evolved and more research emerged, the predictive power of attitudes in directing behavior became less considerable on its own and was stronger when combined with other variables such as pre-existing beliefs (Yzer, 2013). Additionally, subjective norms were significantly associated with attitudes and as a result affected behavioral outcomes: positive subjective norms towards a certain action correlated positively with positive attitudes, making the behavior more likely to occur while negative subjective norms could generate negative attitudes and make it less likely for an individual to commit a certain behavior (Park, 2000).

Summary and Hypotheses

In this study, I intend to investigate adult women's acceptance of cosmetic procedures. Furthermore, I will be investigating whether undergoing cosmetic procedures relates to adult women's level of self-esteem and PWB. Additionally, I will investigate if any sociodemographic variables are related to any of the psychological variables. First, it is assumed that the sample will be diverse and international as the data used for the study is collected through an online questionnaire and participation is requested through social media posts on Facebook and Instagram; this makes the results of women's acceptance of cosmetic procedures more generalizable. Second, it has been established that self-esteem and PWB are variables that have been a compelling focus when evaluating the possible relationship with cosmetic procedures. It is important to note that women were chosen to be the focal sample for the study because of the high ratio of women receiving cosmetic procedures compared to men (The American Board of Plastic Surgery, 2020), as previously said. Furthermore, women are more subject to having negative physical perception and low body esteem compared to men (Brennan, Lalonde & Bain, 2010). Overall, it is a relatively novel and modern topic of study, that has been peaking the interest of scientists from multiple disciplines (Gimlin, 2000), and could present compelling findings. Also, to the best of my

knowledge, the correlations between the particular variables at hand (acceptance of cosmetic procedures, self-esteem and PWB) have not been examined.

Considering all of the mentioned above, it could be hypothesized that adult women's acceptance of cosmetic procedures relate to whether they have or haven't received any. Also, adult women who receive cosmetic procedures could potentially present a significantly different level of self-esteem and/or PWB compared to those who haven't undergone one. Finally, given that self-esteem is assumed to be one of the main motivators and associated variables with undergoing cosmetic procedures, it could be hypothesized that it might mediate relationships of PWB and cosmetic procedures.

Initially, one of the aims of the study was to assess narcissism, however due to the low reliability of the measure used for this variable, narcissism was not included in the statistical analysis.

Methods

Design and Procedure

This study was conducted in a cross-sectional method and the data was collected from the beginning of February until the beginning of April 2021. Due to the COVID-19 pandemic restrictions, the data was gathered through a questionnaire on social media. A pilot study was conducted with 5 individuals to evaluate the survey. The first section of the questionnaire collected sociodemographic variables including age, country of residence, relationship status, education level and employment status. The second section of the questionnaire contained questions about previous or possible future cosmetic procedures such as nature of the procedure and frequency of receiving it for those who have underwent cosmetic procedures previously and likelihood of getting cosmetic procedures in the future. A snowball sampling method was used to recruit participants; a self-reported online questionnaire (https://lundpsychology.eu.qualtrics.com/jfe/form/SV_aVnJZNNznqdJHk9) was published

on social media platforms including Facebook, Instagram and WhatsApp and was spread by acquaintances to their contacts and friends. The duration of completing the questionnaire was approximately 15 to 20 minutes. The questionnaire was completely anonymous and no personal data that could be used to track participants was collected. The data collected remained confidential and no one other than the researcher and thesis advisor had access to it.

Participants

The study was exclusive to women, and the age limit was set to 18. The number of individuals that filled out the questionnaire was 237. Participants' ages ranged from 18 to 60 years old, with the majority of women aging between 18 and 32 (59.1%), 28.7% being between the ages of 32 and 46, and 12.2% being between the ages of 46 and 60. The mean age was 33.04 ± 9.94 years, with 63.0% married, 63.0% with a university level of education and 31.2% having already done a cosmetic procedure. Other details about the sample can be found in Table 1. The sample included women from various countries and continents including Lebanon, Sweden, India, USA, China, Turkey, Germany, Canada and Australia among others. Most of sample resided in Lebanon (19.4%) and Sweden (48.9%) with Swedish residents composing the majority. The purpose of including participants from multiple social media platforms was to avoid having a convenience sample of only university students, subsequently attempting to obtain a higher probability of generalizability. No reward was offered in exchange for participation.

Table 1

Characteristics of the Study Sample (N=237)

	Frequency (%)
Marital status	
Single/ divorced	81 (37.0%)
Married	138 (63.0%)
Education level	
Secondary or less	17 (7.8%)
University	138 (63.0%)
Ever done a cosmetic procedure	

No	150 (68.8%)
Yes	68 (31.2%)
	Mean ± Standard Deviation
Psychological well-being	41.05 ± 7.35
Self-esteem	16.88 ± 2.00
Acceptance of cosmetic procedures	14.34 ± 5.53
Age (in years)	33.04 ± 9.94

Note. Numbers might not add up to the total sample size because of missing values.

Material

Acceptance of Cosmetic Procedures. The questionnaire consisted of psychometric scales, starting with the Acceptance of Cosmetic Surgery Scale (ACSS), which was developed to assess the attitudes of individuals towards cosmetic procedures by Henderson-King and Henderson-King (2005). To avoid making the survey too long, a brief version of the scale was used by selecting 8 items that are self-reported on a Likert-type scale ranging from (1) Strongly agree to (5) Strongly disagree. The items selected have an emphasis on the interpersonal component as opposed to the social and consider components of the longer ACSS, based on the objectives of the study. For example: "It makes sense to have minor cosmetic surgery rather than spending years feeling bad about the way you look." The scale has good reliability with Cronbach's α=0.92 (Henderson-King & Henderson-King, 2005). For the version used in this study Cronbach's α=0.85.

Self-Esteem. The second scale included is the Rosenberg Self-Esteem Scale (RSES), a self-report measure developed by Morris Rosenberg to assess self-esteem (Rosenberg, 1979). It includes 10 items in the form of statements that can have positive or negative connotations such as "On the whole, I am satisfied with myself." and "I wish I could have more respect for myself.", respectively (Rosenberg, 2008). The items are rated on a scale of 4 options from (1) Strongly agree to (4) Strongly disagree (Rosenberg, 2008). The RSES demonstrates excellent reliability (Rosenberg, 1965), with Cronbach's α=0.88 (Rosenberg, 1986). For this study and its objectives, the entirety of the RSES was used with Cronbach's α=0.70.

Narcissism. The next measure used was the Narcissistic Personality Inventory (NPI), which was developed by Robert Raskin and Howard Terry to evaluate Narcissistic personality traits or tendencies rather than or not necessarily Narcissistic Personality Disorder identified by the DSM (Raskin & Terry, 1986). In this study, a brief version of the NPI was used in order to make the questionnaire brief and decrease the probability of participants not proceeding with the questionnaire until the end. It contains 8 items that included two statements from which the participant should select one of; for example: "My body is nothing special." or "I like to look at my body." (Schmalbach et al., 2020). The NPI-8 is a valid and reliable measure for assessment of Narcissistic Personality traits (Schmalbach et al., 2020). In this study Cronbach's α=0.38. Due to the low psychometric qualities of this scale in the study, the results pertaining to the narcissism were not discussed.

Psychological Well-Being. The original Psychological Well-Being Scale (PWB) included 42 items by Carol Ryff with a briefer but the 18-item version being developed later on by Ryff and Keyes (Ryff & Keyes, 1995) was used. Both the longer and shorter version of the PWB are divided into 6 different dimensions of PWB, which are autonomy, environmental mastery, personal growth, positive relations with others, purpose in life and self-acceptance (Ryff, 1989). As previously mentioned, it was important for the study to build a valid and reliable questionnaire with different scales, that is brief, concise and convenient to the objectives of the study. Therefore, items from the Autonomy, Personal Growth and Self-Acceptance subscales were selected from the brief 18-item PWB given the fact that the study focuses on the individual as opposed to interpersonal relationships and interaction with the external environment. All in all after selection, the items used were 9: 3 items for each subscale. As an example of items: "I like most parts of my personality." (Self-Acceptance), "For me, life has been a continuous process of learning, changing, and growth." (Personal Growth) and "I have confidence in my own opinions, even if they are different from the way

most other people think." (Autonomy) (Ryff & Keyes, 1995). The items were rated on a scale of (1) Strongly agree to (7) Strongly disagree. Overall, evidence suggests that the PWB scales are valid and reliable measures of PWB (Shyrock & Meeks, 2018). In this study Cronbach's α=0.76.

At the end of the questionnaire, following the scales mentioned above, two open-ended questions were included about the perceived advantages and disadvantages of receiving cosmetic procedures.

Ethical Considerations

The study followed standard ethical guidelines for research on humans according to the Swedish law. The survey began with a statement that participation was completely voluntary and anonymous, with the option of quitting at any time without any repercussions. The age limit was set to 18. Furthermore, the questionnaire included a consent form containing the objective of the study and the researcher's information, in case participants would like to be informed about the results of the study. This thesis involves the study of medical procedures, aesthetic specifically, and its relationship with psychological variables, some of which might cause distress such as discussion of depression or anxiety. It is important to note that the questionnaire was composed with the aim of avoiding the trigger of any potentially harmful reactions from the participants, and for that reason, the scales used were focused on positive health as opposed to negative health or disorders.

Statistical Analysis

The SPSS software version 23 was used to conduct data analysis. The normality of distribution of the psychological well-being score was confirmed via a calculation of the skewness and kurtosis. The independent t-test and ANOVA tests were used to compare two and three or more means respectively, whereas the Pearson correlation test was used to correlate two continuous variables. A forward linear regression was conducted to check for

correlates associated with psychological well-being. Cronbach's α values were recorded for reliability analysis of all scales.

Mediation Analysis

The PROCESS SPSS Macro version 3.4, model four was used to calculate three pathways (Figure 1). Pathway A determined the regression coefficient for the association of ACSS scores and self-esteem, Pathway B examined the association between self-esteem and psychological well-being, independent of ACSS scores, and Pathway C' estimated the total and direct effect of ACSS scores on psychological well-being. Pathway AB calculated the indirect intervention effects. To test the significance of the indirect effect, the macro generated bias-corrected bootstrapped 95% confidence intervals (CI) should not include zero. In the linear regression and mediation models, included covariates corresponded to those that showed a $p<0.2$ in the bivariate analysis. Nagelkerke R^2 values were also calculated for all models to check how much independent variables would explain the dependent one. Significance was set at a $p<0.05$.

Results

Bivariate Analysis

The results of the bivariate analysis of factors associated with psychological well-being are summarized in Tables 2 and 3. Higher self-esteem (r=0.354) and older age (r=0.193) were significantly associated with better psychological well-being, whereas better acceptance of cosmetic procedures (r=-0.151) was significantly associated with less psychological well-being.

Table 2

Bivariate Analysis of Continuous Variables Associated with PWB

Variable	Coefficient correlation
Self-esteem	r=0.354; p<0.001
Acceptance of cosmetic procedures	r=-0.151; p=0.038
Age	r=0.193; p=0.008

Table 3

Bivariate Analysis of Categorical Variables Associated with PWB

Variable	PWB (mean ± SD)	*p*
Marital status		0.122
Single/ divorced	42.11 ± 6.21	
Married	40.41 ± 7.91	
Education level		0.204
Secondary or less	38.73 ± 8.88	
University	41.25 ± 7.20	
Ever done a cosmetic procedure		0.084
No	40.40 ± 7.78	
Yes	42.37 ± 6.23	
Nature of the procedure- botox		0.565
No	40.95 ± 7.42	
Yes	42.00 ± 6.75	
Nature of the procedure- filler		0.383
No	40.92 ± 7.47	
Yes	42.77 ± 5.33	
Nature of the procedure- other		0.270
No	40.74 ± 7.64	
Yes	42.17 ± 6.13	

Multivariable Analysis

The results of a forward linear regression taking the psychological well-being score as the dependent variable, showed that higher self-esteem (β=1.3333), older age (β=0.18) and having had a cosmetic procedure compared to not (β= 2.6767) were significantly associated with better psychological well-being, whereas being married compared to single (β=-2.7474) and having a better acceptance of cosmetic procedures (β=-0.222) were significantly associated with worse psychological well-being (Table 4).

Table 4

Multivariable Analysis: Linear Regression Taking the PWB Score as the Dependent Variable

Variable	Unstandardized Beta	Standardized Beta	*p*	95% CI
Self-esteem	1.33	0.35	<0.001	0.84-1.81
Attitude towards cosmetic procedures	-0.22	-0.17	0.014	-0.40- -0.05
Age	0.18	0.23	<0.001	0.08-0.27
Marital status (married vs	-2.74	-0.18	0.006	-4.69- -0.78

single*)				
Ever had a cosmetic procedure (yes vs. no*)	2.67	0.17	0.012	0.60-4.74

Note. Reference group; CI=Confidence Interval; Nagelkerke R^2=19.7%.

The correlation matrix of the variables entered in the multivariable analysis can be found in Table 5.

Table 5

Correlation Matrix of the Variables Entered in the Multivariable Analysis

	PWB	RSES	ACSS	Age	Marital status	Cosmetic procedure
PWB	1					
RSES	0.354	1				
ACSS	-0.151	-0.133	1			
Age	0.193	-0.018	0.087	1		
Marital status	-0.113	0.093	0.016	0.141	1	
Cosmetic procedure	0.126	-0.006	0.272	0.036	0.030	1
PWB	1					
RSES	0.354	1				
ACSS	-0.151	-0.133	1			
Age	0.193	-0.018	0.087	1		
Marital status	-0.113	0.093	0.016	0.141	1	
Cosmetic procedure	0.126	-0.006	0.272	0.036	0.030	1

Mediation Analysis

Results of a first mediation analysis, taking self-esteem as a mediating variable were adjusted over all variables that showed a $p<0.2$ in the bivariate analysis. Self-esteem mediated the association between acceptance of cosmetic procedures and psychological well-being (27.99%).

Table 6

Mediation Analysis: Self-Esteem as a Mediating Variable in the Association between ACSS scores and PWB

	Effect of the ACSS scores on self-esteem			Effect of self-esteem on PWB			Effect of the ACSS scores on PWB			Mediating effect of self-esteem
	Beta [95% BCa]	t	p	Beta [95% BCa]	t	p	Beta [95% BCa]	t	p	
ACSS	-0.05 [-0.11- -0.002]	-2.04	0.043	-0.25 [-0.43- -0.07]	-2.76	0.006	-0.32 [-0.51- -0.13]	-3.34	0.001	27.99%
Self-esteem				1.27 [0.79-1.75]	5.19	<0.001				
	R2=0.04			R2=0.26			R2=0.15			

Note. ACSS=Acceptance of cosmetic procedures; PWB=Psychological Well-Being.

Discussion

The objective of this study was to examine the possible correlations between undergoing cosmetic procedures, acceptance of cosmetic procedures, self-esteem and PWB among women. In this sample, 31.2% reported receiving cosmetic procedures. Having had cosmetic procedure compared to not, higher self-esteem and older age were significantly associated with better PWB. Being married compared to single and having a better acceptance of cosmetic procedures significantly associated with worse PWB. Self-esteem mediated the association between acceptance of cosmetic procedures and PWB.

Relationship Status, Acceptance of Cosmetic Procedures and PWB

Being married and having a higher acceptance of cosmetic procedures were significantly associated with worse PWB. In Iran, a sample of married women displayed higher well-being after receiving cosmetic procedures as opposed to before receiving the intervention (Khamseh & Nodargahfard, 2020), which is inconsistent with current results. This discrepancy could be clarified by investigating other relevant variables to PWB within the context of cosmetic procedures.

In a sample of American and South Korean women, higher acceptance of cosmetic procedures was positively correlated with body satisfaction, which could reflect on the level

of well-being as previously mentioned (Jung & Hwang, 2016). Furthermore, women who received cosmetic surgery were more likely to have a lower acceptance and poorer psychometric variables such as body satisfaction compared to women who didn't receive aesthetic intervention (Khazir et al., 2016). Another study with a majority of women participants longitudinally assessed quality of life before and after receiving a cosmetic procedure and found no significant relationship between the two variables (Hosseizadeh et al., 2017).

Another study revealed that married women were more likely to report positive outcomes after having cosmetic surgery (Rita Davai et al., 2018). Also, individuals who had a higher acceptance and interest towards cosmetic procedures reported poor body image compared to those who were not interested, which could reflect poorly on well-being (Frederick, Lever & Peplau, 2007). Also, married individuals were less likely to have a higher acceptance of cosmetic surgery, specifically women who had a higher acceptance of receiving cosmetic procedures had poorer satisfaction compared to those who had less acceptance of aesthetic enhancement (Kasmaei et al., 2020).

Having assessed the literature, there is a clear lack of studies about cosmetic surgery acceptance and PWB; therefore, the results were interpreted based on comparable psychological variables. With that being said, the results of the present study seem a little bit conflicting with previous investigations. For that reason, a mediation analysis was conducted to further explore the nature of the relationship between the variables discussed at hand.

Self-Esteem as a Mediator between Acceptance of Cosmetic Procedures and PWB

Self-esteem mediated the association between acceptance of cosmetic procedures and PWB. In Figure 1, this relationship is visualized: ACSS scores were the independent variable, RSES were the mediating variable that served as a pathway for the effect of acceptance of cosmetic procedures on PWB, the scores of which represented the dependent variable.

Acceptance of cosmetic procedures were associated with self-esteem, which was associated with PWB. It was previously found that self-knowledge mediated the association between self-worth and psychological distress among cosmetic procedures patients (Valikhani & Goodarzi, 2017). Self-knowledge refers to an individual's awareness of his own mental state such as information and beliefs about himself/herself, which can include self-esteem (Gertler, 2010). Being that the sample includes patients that are getting cosmetic procedures, it is assumed that they are open and acceptant of aesthetic enhancement. Additionally, psychological distress could be considered the opposite of positive PWB, or the negative aspect of PWB. In another study, negative self-appearance evaluation mediated the relationship between acceptance of cosmetic procedures and appearance esteem (Dunaev, Schulz & Markey, 2018). Also, having less psychological problems, implying better PWB, among individuals seeking cosmetic procedures predicted better self-esteem (von Soest et al., 2009). A study previously found that physical self-concept mediated the relationship between body perception and self-esteem (Lau, Cheung & Ransdell, 2008); meaning that how individuals conceptualize their appearance affects the association between how they view their body and its connection to self-esteem. We can hypothesize that physical self-concept can affect how body perception and self-esteem interact, which can subsequently affect the susceptibly one has towards accepting and receiving cosmetic procedures. Having said that, few studies have assessed the mediating role of self-esteem within the context of cosmetic procedures. A recent study demonstrated that self-esteem mediated the relationship between perfectionism and body image among individuals seeking cosmetic procedures (Moghadam, Moghadam & Jahangir, 2021). Global self-esteem that is considered healthy is synonymous with positive self-worth, self-respect and correlates positively with PWB as opposed to psychological problems (Branden & Archibald, 1982). Negative PWB was connected to a negative attitude towards one's appearance, which can translate into low self-esteem,

especially among women who have accepted and undergone cosmetic procedures in an Iranian sample (Abbasi et al., 2017). In this study, acceptance of cosmetic procedures has no direct relationship with PWB, but when self-esteem is evaluated, it was found to be a mediator. Self-esteem is related to PWB as previously mentioned, and it can be hypothesized based on the current results that self-esteem is the influencing variable related to PWB that makes a difference on how it relates to acceptance of cosmetic procedures. This means that low or high self-esteem can affect whether acceptance of cosmetic procedures and PWB actually correlate.

Methodological Assessment

The results were contrasted with multiple studies from different countries and cultures in order to assess consistency in findings. However, it is important to note that the results are to be interpreted with caution for various reasons. First, study designs differ among mentioned research with some being correlational studies while others are experimental studies that include intervention, which is not the case for this study. Second, although the variables assessed are the same in some of the studies (acceptance of cosmetic procedures, self-esteem and PWB), some of the scales used to evaluate these variables are different from the psychometric measures used in this study. Third, the literature containing studies about cosmetic procedures with the same variables is very scarce, and therefore some of the results were attempted to be interpreted based on studies with similar but not identical variables.

Results within Theoretical Context

Self-Verification Theory

In this study, having higher self-esteem and having had a cosmetic procedure previously was related to better PWB, which is consistent with self-verification theory: individuals with high self-esteem are more likely to have positive views of themselves, these positive views in-turn reinforce behavior that confirms these beliefs (Murray, Holmes &

Griffin, 2000). Those who believe that they are physically attractive are more likely to display that belief by seeking a cosmetic procedure that they believe enhances their physical appearance and makes the probability of receiving confirmatory positive responses from others higher, subsequently promoting positive PWB according to this theory. The mediation results can also be interpreted according to the self-verification theory: self-views align with self-esteem, which could indicate that self-esteem has an indirect pathway or effect on PWB; current results showed that self-esteem mediated the relationship between acceptance of cosmetic procedures and PWB, and consistency of self-views with verification is essential for PWB as previously mentioned. It is widely assumed that people with low self-esteem tend to seek cosmetic procedures in order to enhance it, and along those lines were the critiques that the self-verification theory received. Social psychologist believed that it would be very conflicting to assume that individuals with negative self-views pursue confirmation from others or behave in a way that verifies these beliefs. In order to further evaluate these assumptions, researchers contrasted the self-verification theory with the self-enhancement theory, which states that people behave in a way that reinforces their positive views of themselves and promote high self-esteem (Sedikides & Gregg, 2008). Findings showed that initially, people chose individuals that promoted positive views of them but upon contemplation, they chose evaluator whose views align with the individuals' views of themselves whether positive or negative (Swann, 1990). Furthermore, clear distinguishing factors exist between the mechanisms that self-enhancement and self-verifications affect: enhancing responses from others elicited affective reactions while verifying responses from others directed cognitive reactions (Swann et al., 1987). Additionally, a study showed that when people had reduced cognitive resources such as intelligence and competence were more likely to choose responses that were self-enhancing instead of responses that were self-verifying, indicating that cognition and self-verification are associated (Paulhus & Levitt,

1987). Ultimately, self-verification tendencies are stronger and more robust than self-enhancing tendencies. It is important to note that self-verification tendencies were prominent for those who perceived themselves negatively as well as those who perceived themselves positively (Swann, De La Ronde & Hixon, 1994). Other studies evaluated self-verification in regards to self-esteem: people with high self-esteem who encountered successful experiences in life experienced positive PWB while people with negative self-views and low self-esteem who were successful responded with increased anxiety (Lundgren & Schwab, 1977). In conclusion, self-verification theory can adequately interpret the results of the current study in a rational and plausible way.

Objectification Theory

Individual differences exist regarding the effect of self-objectification, with some women developing psychological disorders or adverse psychological effects. These effects can start at puberty: girls who are experience to self-objectification during early stages of their development such as puberty are more likely to have poor psychological outcomes (Daniels, Zurbriggen & Ward, 2020). As for adult women, self-objectification theory reinforces midlife women's illusion of youth and maintenance of youthful physical appearances (Rodeheaver & Stohs, 1991). Self-objectification theory is the main motivator of detachment, which might lead them to pursue cosmetic procedures in order to make society perceive them as younger in age (Rodeheaver & Stohs, 1991). This process reinforces the belief that aging exacerbates mental health risks such as lower self-esteem, despite evidence proving otherwise: women in their 50s experience better PWB than younger women (Livson, 1976). Overall, self-objectification affects women differently based on the degree of self-objectification and how it influences psychological variables and affects life outcomes (McKinley & Hide, 1996). Going back to cosmetic procedures, self-objectification conditions predisposed women to feeling shameful about their bodily appearances and subsequently

were more likely to seek cosmetic procedures (Calogero, Pina & Sutton, 2013). Furthermore, self-objectification and attractiveness were associated with a higher probability of seeking cosmetic procedures among a sample of Chinese women (Sun, 2018). Similar findings were seen in sample of British women, where self-objectification was the main social motivator of being acceptant and receiving cosmetic procedures (Calogero et al., 2010). Women believe that undergoing a cosmetic procedure to enhance their appearance, they will receive positive attention from society (Wang & Li, 2020). On a final note, objectification theory can explain why women who had had cosmetic procedures experience better PWB and higher self-esteem, as it can produce a positive response from women's environments.

Optimal Distinctiveness Theory

In the context of this study, it has been previously established that being an attractive woman fosters group acceptance, which can motivate women to aesthetically enhance their appearance in order to be similar to the group's traits or receive positive judgment, consequently boosting the probability of being included and integrated. For example, a woman who wants to belong to a group of women that are conventionally attractive but lacks such features might resort to cosmetic procedures in order to reduce differences and earn belongingness. On the other hand, women who have a higher need for distinctiveness might be less likely to seek cosmetic procedures with the goal of being accepted by society according to their standards of beauty. These assumptions reinforce the role of individual differences on self-concept and social group identification (Sorrentino, Seligman & Battista, 2007), with research finding that some social group memberships are reinforced by distinctiveness as some individuals seek to be included in groups that are pro-individualism and are more likely to behave in a unique manner (Jetten, Postmes & McAuliffe, 2002). Overall, it may be said that the optimal distinctiveness theory could potentially explain one of the motives of women receiving cosmetic procedures and its ensuing effect on psychological

variables from a social psychology perspective. This theory is notably significant for women who have a higher need for inclusivity as opposed to a higher need for distinctiveness.

Attitudes and Behavior

A previous study assessing intention of receiving cosmetic procedures based on the Theory of Reasoned action found that attitudes towards receiving cosmetic procedures were positively correlated with intention of getting aesthetic enhancement among an Iranian sample, while subjective norms were not related to either variables (Dehdari et al., 2015). Another study found that subjective norms and attitude towards cosmetic procedures were strong predictors of young people's intention to get cosmetic procedures in Vietnam (Nguyen, Tran & Nguyen, 2020). In a sample of women, the Theory of Reasoned Action explained motivation and intention to undergo cosmetic procedures (Barati et al., 2020). These findings are relevant for the current results because acceptance of cosmetic procedures were not associated with a higher probability of receiving cosmetic procedures nor did negative attitudes towards cosmetic procedures predict abstinence from receiving cosmetic procedures. This can indicate that attitudes are not strong predictors of behavior or that other variables are involved that have an effect on the final behavioral outcome.

Practical Implications

The current study investigates associations between psychological variables and medical operations, specifically cosmetic procedures. For that reason, there are important clinical implications that can be noted. Plastic surgeons and plastic surgery nurses who are qualified to perform cosmetic procedures should be formally trained to screen and be able to predict psychological anomalies that may be alarming and/or contribute to adverse effects after receiving aesthetic enhancement. This is relevant based on the results of the study, which found significant relationships between psychological variables and cosmetic procedures. The importance of such procedure before undergoing aesthetic enhancement is

highlighted by the recent emergence of holistic plastic surgery, which adopts an approach that studies all aspects of the patient's life such as the surrounding environment, diet, habits and psychological variables (Youn, 2016). Holistic plastic surgery works on psychologically preparing the patient for cosmetic procedures in order to reach optimal results with minimal risk.

Limitations

It must be acknowledged that limitations exist in this study. First, the data was collected using a questionnaire with multiple self-report measures, which introduces the possibility of self-report bias, despite the anonymity of the study. This research was conducted during a pandemic, which eliminated the possibility of conducting the tests in-person. Also, as previously mentioned, the investigation of acceptance of cosmetic procedures, self-esteem, and PWB is somewhat limited; relatively no studies assess these variables within the same study. As a result, some of the findings were interpreted by contrasting it to comparable variables; for example: psychological distress as opposed to PWB. It is also important to note that an intentional attempt was made to use brief versions of the relevant scales used to collect data to keep the survey as concise as possible in order to maintain a high participation rate and less probability to quit the survey; the use of the longer versions with more items could have provided clearer and more descriptive results. Furthermore, this was a correlational study; therefore it is not possible to infer causation from any of the significant relationships found in the statistical analysis. In addition, the study involved the participation of women from many areas in the world including the Asia, Europe, America and Australia; thus, the scales that were used are not validated for participant's country of origin.

Future Research

The investigation of the association between psychological variables and cosmetic procedures is still relatively scarce, especially given the prevalence of women undergoing aesthetic enhancement and its continuous rise in popularity across countries. It is noticeable that research on cosmetic procedures within psychology is mostly based on US samples, which reiterates the significance of conducting such investigations in countries such as Sweden where very few studies currently exist on the topic. This is also important for comparative purposes: it can be argued that the popularity of cosmetic procedures is lower in some countries as opposed to others (for instance Sweden compared to Lebanon), which can generate observable differences in the relationship between undergoing cosmetic procedures and the psychological variables at hand such as self-esteem and PWB. Future studies could also divide the sample group into women who undergo cosmetic procedures routinely for maintenance, women who have undergone a cosmetic procedure once and those who haven't and assess their scores on different psychometric scales; it would be interesting to see if women who engage in appearance maintenance differ in acceptance of cosmetic procedures, self-esteem and PWB. Research with the possibility of collaborating with cosmetic physicians could evaluate the same psychological variables before undergoing cosmetic procedures and after, and subsequently assess if a difference exists after aesthetic enhancement. In these cases, the sample can be more exclusive, such as focusing on one specific country or culture, or conduct a cross-sectional study between two different cultures such as the Lebanese and Swedish societies. Finally, ethical consideration can be obtained from the relevant authorities to evaluate negative health/psychological variables such as assessing Major Depressive Disorder, Social Phobia, Body Dysmorphic Disorder and Histrionic Personality Disorder among other psychiatric disorders.

Conclusion

Current findings showed that more than a quarter of women in this diverse sample from multiple different countries have received at least one cosmetic procedure. A significant relationship was found between having had a cosmetic procedure, being married, and positive PWB while negative PWB was negatively related to being married and having higher acceptance of cosmetic procedures. In addition, self-esteem mediated the relationship between acceptance of cosmetic procedures and PWB, and the relationship between and PWB. These results are pivotal in further understanding the association between cosmetic procedures and multiple relevant psychological variables. It also highlights clinical implications overlapping both aesthetic medicine and psychology, which can motivate practices that optimize psychological health within populations that receive cosmetic procedures.

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Appendix

Questionnaire

Questionnaire about Cosmetic Procedures among Women

To whom it may concern,

You are invited to participate in this questionnaire in English about cosmetic procedures. This is a research project being conducted by Emmanuelle Awad, a graduate student at Lund University. The purpose of this study is to investigate adult women's attitude towards cosmetic procedures and how it relates to psychological factors. It should take approximately 15 minutes to complete. Participation is voluntary and you can withdraw from participation at any time after you have started taking the questionnaire without any consequences. Participation is completely anonymous. The information reported will remain confidential and will only be used for scientific purposes. If you have any questions, please contact Emmanuelle Awad (emmacawad@gmail.com).

I would be very grateful if you decide to fill out the survey. Thank you!

- □ I certify that I have read and understood the above information without any pressure to do so.

Demographic questions

Q1 Age:

_____

Q2 Country of residence:

_____

Q3 Relationship status:

- Single (1)
- In a relationship/Married (2)
- Divorced/Separated (3)
- Widowed (4)

Q4 Education level:

- Primary (1)
- Complementary (2)
- Secondary (3)
- Bachelor's degree (4)
- Master's degree (5)
- PhD (6)

Q5 Employment status:

- Unemployed (1)
- Part-time employment (2)
- Full-time employment (3)
- Retired (4)
- Student (5)

Questions about previous or possible future cosmetic procedures

Q7 Have you ever had a cosmetic procedure? (For example: any kind of facial injections, any kind of facial or bodily laser treatment, any kind of surgical intervention for the purpose of aesthetic enhancement, etc.)

- Yes (1)
- No (2)

Skip To: Q8 If Have you ever had a cosmetic procedure? (For example: any kind of facial injections, any kind of... = No

Q9 What was the nature of the procedure?

- Botox or injectable targeting ageing signs (1)
- Filler or injectable to increase volume of a specific feature (2)
- Other, specify: (3) _____

Q10 How often do your receive the procedure(s) specified above?

- It was a one-time procedure (1)
- Monthly (2)
- Bi-monthly (3)
- Yearly (4)
- Bi-yearly (5)

Q8 How likely is it that you will undergo cosmetic enhancement in the future?

	Extremely unikely (1)	Rather unlikely (2)	Neither likely nor unlikely (3)	Rather likely (4)	Extremely likely (5)
How likely is it that you will undergo cosmetic enhancement in the future? (1)	○	○	○	○	○

Acceptance of Cosmetic Surgery Scale (ACSS)

Q14 Please indicate how strongly you agree or disagree with each statement below.

	Strongly agree (1)	Somewhat agree (2)	Neither agree nor disagree (3)	Somewhat disagree (4)	Strongly disagree (5)
It makes sense to have minor cosmetic surgery rather than spending years feeling bad about the way you look. (1)	○	○	○	○	○
Cosmetic surgery is a good thing because it can help people feel better about themselves. (2)	○	○	○	○	○
People who are very unhappy with their physical appearance should consider cosmetic surgery as one option. (3)	○	○	○	○	○
If cosmetic surgery can make someone happier with the way they look, then they	○	○	○	○	○

should try it. (4)					
Cosmetic surgery can be a big benefit to people's self-image. (5)	○	○	○	○	○
If a simple cosmetic surgery procedure would make me more attractive to others, I would think about trying it. (6)	○	○	○	○	○

Rosenberg Self-Esteem Scale (RSES)

Q15 Please indicate how strongly you agree or disagree with each statement below.

	Strongly agree (1)	Agree (2)	Disagree (3)	Strongly disagree (4)
On the whole, I am satisfied with myself. (1)	○	○	○	○
At times I think I am no good at all. (2)	○	○	○	○
I feel that I have a number of good qualities. (3)	○	○	○	○
I am able to do things as well as most other people. (4)	○	○	○	○
I feel I do not have much to be proud of. (5)	○	○	○	○
I certainly feel useless at times. (6)	○	○	○	○
I feel that I'm a person of worth, at least on an equal plane with others. (7)	○	○	○	○

I wish I could have more respect for myself. (8)	○	○	○	○
All in all, I am inclined to feel that I am a failure. (9)	○	○	○	○
I take a positive attitude toward myself. (10)	○	○	○	○

Narcissistic Personality Inventory (NPI)

Q18 Please select the statement that best reflects your personality.

- When people compliment me I sometimes get embarrassed. (1)
- I know that I am good because everybody keeps telling me so. (2)

Q19 Please select the statement that best reflects your personality.

- I prefer to blend in with the crowd. (1)
- I like to be the center of attention. (2)

Q20 Please select the statement that best reflects your personality.

- I don't particularly like to show off my body. (1)
- I like to show off my body. (2)

Q21 Please select the statement that best reflects your personality.

- My body is nothing special. (1)
- I like to look at my body. (2)

Q22 Please select the statement that best reflects your personality.

- Compliments embarrass me. (1)
- I like to be complimented. (2)

Q23 Please select the statement that best reflects your personality.

- I don’t care about new fads and fashions. (1)
- I like to start new fads and fashions. (2)

Q24 Please select the statement that best reflects your personality.

- I like to look at myself in the mirror. (1)
- I am not particularly interested in looking at myself in the mirror. (2)

Q25 Please select the statement that best reflects your personality.

- I get upset when people don't notice how I look when I go out in public. (1)
- I don't mind blending into the crowd when I go out in public. (2)

Psychological Well-Being Scale (PWB)

Q25 Please indicate how much you agree or disagree with each statement below.

	Strongly agree (1)	Agree (2)	Somewhat agree (3)	Neither agree nor disagree (4)	Somewhat disagree (5)	Disagree (6)	Strongly disagree (7)
I like most parts of my personality. (1)	○	○	○	○	○	○	○
When I look at the story of my life, I am pleased with how things have turned out so far. (2)	○	○	○	○	○	○	○
In many ways I feel disappointed about my achievements in life. (3)	○	○	○	○	○	○	○
For me, life has been a continuous process of learning, changing, and growth. (4)	○	○	○	○	○	○	○

I think it is important to have new experiences that challenge how I think about myself and the world. (5)	○	○	○	○	○	○	○
I gave up trying to make big improvements or changes in my life a long time ago. (6)	○	○	○	○	○	○	○
I tend to be influenced by people with strong opinions. (7)	○	○	○	○	○	○	○
I have confidence in my own opinions, even if they are different from the way most other people think. (8)	○	○	○	○	○	○	○

I judge myself by what I think is important, not by the values of what others think is important. (9)	○	○	○	○	○	○	○

Q11 What are the benefits of receiving cosmetic procedures, in your opinion?

_____

_____

_____

_____

_____

Q12 What are the disadvantages of receiving cosmetic procedures, in your opinion?

_____

_____

_____

_____

_____