"IN THE EYE OF THE BEHOLDER": UNDERSTANDING THE ROLE OF BEAUTY IN DISORDERED EATING

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ABSTRACT

Eating disorders are mental health illnesses with global implications; however, there is a dearth of research on their development and maintenance within Asian populations. This study extended findings from Obleada's (2019) thesis by refining a recently developed Asian beauty measure (Aspects of Appearance Measure; AAM), examining aspects of validity with samples of Asian Americans in the continental United States and individuals living in two Asian countries, and exploring its relationship with other common and unique risk factors for Asians. Participants were women recruited from the University of Hawaiʻi at Mānoa (*n* = 147), Boston University (*n* = 97), and South Korea (*n* = 196); a small sample recruited from the Philippines was insufficient for inclusion in analyses. Results indicated a two-factor model derived from reduction of items and multiple confirmatory factor analyses, which resulted in retaining 7 out of 15 items from the original *Hair, Skin, and Face* subscale and 6 out of 12 items from the original *Body and Looks* subscale. Measurement invariance supported the AAM's use with both populations and implied the measure contained culture-specific items for Asians. The AAM was positively associated with internalized weight bias, body dissatisfaction, disordered eating sociocultural pressures, and depression. Notably, compared to European and Asian Americans, South Koreans had the highest scores on both subscales of the AAM, disordered eating, acceptance of cosmetic surgery, and on a measure assessing the price they'd be willing to pay to meet appearance ideals. Limitations of this study include small sample sizes of Philippine nationals and Asian Americans and multicollinearity of AAM subscales. Future studies should further examine whether common and unique risk factors may predict responses on the AAM and investigate cross-cultural aspects of the relationship between the AAM and risk factors, especially among South Koreans.

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LIST OF ABBREVIATIONS

AAM	Aspects of Appearance Measure
ACSS/ACS	Acceptance of Cosmetic Surgery
AN	Anorexia Nervosa
ANOVA	Analysis of Variance
AVS-R/AVS	Asian Values Scale-Revised
BCS	Body Comparison Scale
BDD	Body Dysmorphic Disorder
BED	Binge Eating Disorder
BL	Body and Looks subscale
BN	Bulimia Nervosa
BSQ-8C/BSQ	Body Shape Questionnaire-Brief Form
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Indices
DASS	Depression Anxiety Stress Scale
EDE-Q/EDEQ	Eating Disorder Examination Questionnaire
EFA	Exploratory Factor Analysis
ERI	Ethnic-Racial Identity
HSF	Hair, Skin, and Face subscale
MIIS	Multiracial Identity Integration Scale
OSFED	Otherwise Specified Feeding and Eating Disorder
PAWMAPS	Perceived Asian and Western Media Appearance Pressure Scales
PIP	Price I'd Pay Measure
RMSEA	Root Means Square Error of Approximation
SATAQ-4	Sociocultural Attitudes Towards Appearance Questionnaire
SONA	Subject Pool Management Software
SRMR	Standard Root Mean Square Residual
TLI	Non-normed Fit Index
WBIS-M	Weight Bias Internalization Scale-Modified

CHAPTER 1. INTRODUCTION

Eating Disorders

Eating disorders are serious illnesses, characterized by a preoccupation with food and an overvaluation of weight and shape, that cause severe psychological distress, role impairment, physiological problems, and interpersonal difficulties (Fairburn, 2008; Smink et al., 2012). Anorexia nervosa (AN), bulimia nervosa (BN), and binge-eating disorder (BED) are the three principal eating disorder diagnoses; however, it is also common for individuals to suffer from disordered eating that does not meet full criteria for these categories (Otherwise Specified Feeding and Eating Disorders; OSFED).

In the United States, lifetime prevalence rates for eating disorders are substantial, ranging from 0.60-4.50% population-wide and affecting mostly young females (Hudson et al., 2007). Specifically, lifetime prevalence rates are 2.80% for binge-eating disorder, 1% for bulimia nervosa, 0.60% for anorexia nervosa and 4.64% for OSFED (Hudson et al., 2007; Le Grange et al., 2012). Research has shown that these conditions are also a global health issue, although more commonly found in Western countries (Hoek, 2016). According to the Global Burden Disease 2013 study, there were an estimated 40 million individuals with anorexia nervosa and 1.11 million with bulimia nervosa worldwide (Erskine et al., 2016).

Eating Disorders Among Asian Americans and Asian Nationals

Of particular interest are the mixed findings on the prevalence rates for eating disorders among Asians. According to Nicdao et al. (2007), eating disorders affect Asian Americans at lower prevalence rates than the United States population as a whole. Among a total of 1097 female participants, lifetime prevalence rates for Asian American females were 0.12% for anorexia nervosa, 1.42% for bulimia nervosa, and 2.67% for binge eating disorder. Asian Americans are less likely to seek treatment for psychological problems in general, however, suggesting that these figures may be underestimates (Smart et al., 2011).

Among Asian nationals, prevalence rates have been increasing steadily with the expansion of globalization, industrialization, and urbanization (Pike & Dunne, 2015; Thomas et al., 2016). After the first reported cases of eating disorders in Japan in the 1970s, other industrializing countries such as Singapore, Hong Kong, and Taiwan soon followed with reported increases in disordered eating attitudes and behaviors by the end of the 20th century (Pike & Dunne, 2015). Notably, these rates were comparable to or higher than rates recorded in Western countries (Pike

& Dunne, 2015). Although epidemiological data across Asia and the Pacific are sparse, current studies demonstrate an increase in eating disorder attitudes and behaviors, especially in Japan, China, and South Korea (Thomas et al., 2016). One problem complicating the interpretation of epidemiological data relates to low mean body mass index (BMI) among populations in East and Southeast Asia. Although the World Health Organization (WHO) has established more stringent cut-offs for obesity and overweight classifications for Asians, there have been no adjusted cut-offs for an underweight classification (Thomas et al., 2016).

Eating disorder pathology may also take somewhat different forms within samples of Asian women (Thomas et al., 2016). Wardle et al. (2006) found that Asian women held stricter standards about achieving the values of thinness compared to other ethnicities. Despite having lower average body mass relative to European women, Asian women reported higher levels of body dissatisfaction (Koff et al., 2001; Mitz & Kashubeck, 1999; Yates et al., 2004). Previously, it was difficult to diagnose Asians with eating disorders using Western criteria because Asian women tended not to endorse fears of fat or weight gain (Lee & Katzman, 2002; Lee et al., 2010; Nakai et al., 2014). In connection with increasing prevalence rates and mixed findings regarding eating disorders in Asian Americans and Asian nationals, the present study examined how a subset of factors (e.g., beauty ideals) might play a role in the development and/or maintenance of eating pathology.

Differences Among Asian Subpopulations

The Japanese

Ishikawa (1965) attributed the increasing prevalence of eating disorders among the Japanese to changes in the traditional family structure after World War II. Others have argued that differing cultural explanations are responsible, such as an increase in individualistic values conflicting with traditional collectivistic values, an opposing female role formed by new societal expectations, and the growth of consumerism and media influence (Gordon, 2001). However, earlier accounts of an eating illness called “Fushoku-byo” during the Edo Era (1603-1868) describe symptoms similar to anorexia nervosa, such as consumption of irregular and restrictive diets, purging if compelled to eat, and bradycardia without extreme emaciation (Otsuka, 1955). Although no psychological symptoms were described or explored during this time, it is notable that a slender figure was the ideal at this time (Shimosaka, 1986).

Similar to epidemiological data in the West, eating disorders are most common among adolescent females in Japan (Kuboki et al., 1996). In terms of symptom presentation, three discernible subtypes have been defined: typical AN, non-fat-phobic AN, and AN without any distortions related to body shape and weight (Nakai et al., 2014). Research on males shows that adolescent boys have increasing but different body image concerns, such as a desire to gain weight with frequent underestimations of their current body weight; this body dissatisfaction appears to resolve as boys increase in muscularity (Muazzam & Khalid, 2008).

The Chinese

No cases of anorexia nervosa were reported in Hong Kong before 1980 (Hsu & Lee, 1993). Data from the Miss Hong Kong Beauty Pageant from 1975 to 2000 and descriptions within classical Chinese literature suggest that the feminine ideal has consistently been a "curvaceous body shape with a narrow waist set against full hips" (Leung et al., 2001). Throughout Chinese history, "thinness" and "smallness" were glorified for thousands of years, exemplified by practices such as women binding their waist and feet or wearing a Chi-pao, a long thin tight dress to accentuate a slim figure (Leung et al., 2001). Slenderness appears to have been part of appearance standards for centuries, possibly setting the stage for restrictive eating patterns and other eating disorder symptomatology.

In the early- to mid-1990s, the most common cases of eating disorders in Hong Kong presented as non-fat-phobic AN, with patients typically attributing their restrictive behavior to somatic symptoms, such as epigastric bloating, abdominal pain, or an absence of hunger. Patients of the non-fat-phobic AN type also endorsed fewer bulimic symptoms and a lower premorbid BMI than typical AN counterparts in Western countries (Lee et al., 1989; Lee et al., 2001; Lee et al., 1996). More recently, there has been an increase in the prevalence of BN and fat-phobic AN (Lee et al., 1989), which may be impacted by globalization and Western influences. Notably, this sequence of disordered eating is similar to the pattern that occurred in the West (Habermas, 2015). In Taiwan, there has been a reported rise in body dissatisfaction, dieting, and purging behaviors among younger adolescents, which has been linked to frequent daily media usage (e.g., TV, internet), consumption of fried foods, and night-time snacking (Liou et al., 2012; Tsai, 2000; Wong & Huang, 1999; Yeh et al., 2009).

The South Koreans

From the early 1960s through the late 1990s, the prevalence of eating disorders and associated risk factors coincided with the occurrence of societal and economic changes in South Korea (Pike & Dunne, 2015). Although the clinical profile of eating disorders is similar to that observed in the West, disordered eating symptomatology did not follow a similar sequence of the appearance of non-fat phobic AN, typical AN, then bulimia. Recent research suggests that body dissatisfaction and thin ideal internalization may be even more widespread in Korea than in the West (Pike & Dunne, 2015). In a study comparing scores on the Korean version of the Eating Attitudes Test-26 (K-EAT-26), Korean Americans had the lowest average score while the scores of Korean female immigrants to the U.S. and native Korean women did not differ significantly from each other despite native Korean women having a lower average BMI (Jackson et al., 2006). These results indicate that disordered eating attitudes and behaviors are more prevalent among women born in Korea compared to Korean women born in America. One possibility is that the thin beauty ideal may not be derived principally from Western influences but may be a standard promoted by native Korean values, such that appearance rather than ability or talent is the principal determinant of a woman's success (Jackson et al., 2006). Another possibility is that thin beauty ideals may interact with Western influences, which may explain the recent prevalence of eating disorders.

The Filipinos

There has been limited research examining eating disorders among Filipinos and Filipino Americans, and there are currently no prevalence rates for Filipinos in the Philippines. One study with undergraduate participants found that disordered eating was associated with BMI, dieting, and body dissatisfaction among Filipino males and with self-dissatisfaction and dieting among Filipino females (Edman & Yates, 2005). More research is necessary to understand the etiology of disordered eating within this population.

Given the diverse findings concerning different subpopulations of Asians, it is important to explore how risk factors, especially unique risk factors, may influence the development and maintenance of eating pathology in Asian Americans and Asian nationals. Research has shown that thin-ideal internalization and body image are correlates in the development of eating disorder pathology in Western and Asian populations (Allen et al., 2015; Stice et al., 2011). Other beauty ideals (e.g., color of skin, facial features) may also impact body image and eating

pathology and are explored as the primary focus of this study. Therefore, an overview of common risk factors for eating disorders is first reviewed, followed by a discussion of conceptualizations of beauty and their influence on society. To provide a context for putative considerations that may make Asian nationals and Asian Americans vulnerable to disordered eating, other possible risk factors for Asian populations are also discussed. Finally, the development of a measure aimed at capturing Asian beauty ideals is described.

Risk Factors for Eating Disorders

Research on risk factors suggests a complex interaction of biological (Striegel-Moore & Bulik, 2007) and genetic vulnerabilities (Bulik et al., 2016), temperamental variables (Lilenfeld, 2011; Wagner & Vitousek, 2019), family dynamics (Striegel-Moore et al., 1986), and general sociocultural pressures (Striegel-Moore et al., 1986; Wertheim & Paxton, 2011). According to Striegel-Moore and Bulik (2007), “the single best predictor for developing an eating disorder is being female” (p. 182). Adolescence appears to be an especially vulnerable time, possibly due to pubertal changes and fat accumulation (Attie & Brooks-Gunn, 1989; Crisp & Kalucy, 1974; Hsu, 1990; Rosenbaum, 1979). Teasing by peers, discomfort discussing problems with parents, and maternal preoccupation with dietary restraint may also be contributors to risk (Attie & Brooks-Gunn, 1989).

Thin Ideal Internalization

As noted previously, sociocultural pressures are just one part of a complex set of contributors that may increase vulnerability. In particular, pursuit of the thin ideal has been examined extensively as a vulnerability factor for the development of eating disorders. In North America, idealization of a slender body type has been prevalent since the 1960s when the model Twiggy famously dominated the modeling scene (Swami, 2016). Twiggy’s willowy physique exemplified changing standards of the ideal body; by the 1990s, thinness became synonymous with or at least a prerequisite for beauty (Swami, 2016). In addition, the standard promulgated by the fashion industry has become increasingly thin over time (Silverstein et al., 1986; Streigel-Moore et al., 1986). Partly in response, dieting became more widespread as women attempted to narrow the perceived discrepancy between their actual weight and this hard-to-achieve thinness ideal (McCarthy, 1990).

Self-Objectification Theory

Self-objectification is defined as the internalization of another's perspective on one's own body and can be expressed through body surveillance. Body surveillance represents a form of self-consciousness or habitual monitoring (i.e., body-checking) of one's appearance, which is conjectured to increase body shame and anxiety (Mercurio & Rima, 2011; Moradi & Huang, 2008). Body shame is defined as the feeling of failing to measure up to some internalized or cultural standard (Frederickson & Roberts, 1997).

Objectification theory proposes that women are treated as objects to be consumed by others and are socialized to expect themselves to be looked at and evaluated by others (Frederickson & Roberts, 1997). Self-objectification helps explain how women's social interactions and experiences of being sexually objectified may lead to depression, eating disorders, and sexual dysfunction (Frederickson & Roberts, 1997). This model also posits that women's increased focus on their bodies and attempts to attain certain appearance ideals may lead to body shame and body dissatisfaction (Frederickson & Roberts, 1997).

Self-Objectification and Body Dissatisfaction

According to Stice and Shaw (2002), body dissatisfaction is one of the most critical risk factors for developing eating disorders. Body dissatisfaction represents "the negative subjection of one's physical body, such as figure, weight, stomach, and hips" (p. 985) and has been associated with negative psychological well-being, including depression, low self-esteem, and social anxiety (Grabe & Hyde, 2006; Koff, et al., 2001; Stice & Shaw, 2002). Within the self-objectification framework, body shame is held to lead to body dissatisfaction, such that the discrepancy between one's current weight and one's ideal weight causes disappointment and negatively affects psychological well-being (Frederickson & Roberts, 1997). Individuals who are unable to meet the cultural thin ideal "naturally" may resort to unnatural methods of attempted control such as starvation, purging, and binge-eating.

Weight Stigma and Weight Bias Internalization

In the context of rising obesity rates, stigma and discrimination towards individuals with excess weight became additional sources of body dissatisfaction and negative psychological outcomes (Lee et al., 2019; Puhl & Heuer, 2009). As a result, some individuals imputed these social stereotypes and exhibited internalized weight bias or self-directed negative beliefs and attitudes based on their perceived weight status (Lee et al., 2019). Internalized weight bias has

been associated with depression, anxiety, low self-esteem, distress, eating pathology, fat phobia, maladaptive coping strategies, appearance evaluation, and reduced quality of life (Durso et al., 2012; Hayward et al., 2018; Hübner et al., 2016; Lee et al., 2019; Sienko et al., 2016; Wu et al., 2020). Moreover, internalized weight bias has been found to mediate the relationships between depression and disordered eating (Sienko et al., 2016) and between sociocultural pressures and binge eating (Lee et al., 2019).

Little research has studied weight stigma among Asians; however, one study identified weight stigma as a predictor of binge eating among Asian Americans (Wu et al., 2020). A study by Cheng and colleagues (2018) in Hong Kong found that weight bias was related to perceived weight stigma (i.e., internalized weight bias), inappropriate eating behaviors, and depression for both overweight and non-overweight participants. To understand this relationship, it may be important to look at the contributing sources of internalized weight bias, such as media, work, family, and friends (Asbury & Woszidlo, 2016; Pearl et al., 2018; Puhl & Brownell, 2006; Puhl & Heuer, 2009). Regarding familial messages, a conformity orientation (i.e., family communication that perpetuates homogeneity in attitudes, values, and beliefs) has been associated with weight discrimination and anti-fat attitudes (Asbury & Woszidlo, 2016). Given that Asian values promote cohesiveness and harmony, it is possible that anti-fat attitudes and weight discrimination may play a role in internalized weight bias and eating pathology among these individuals.

Beauty Ideals

In recollecting the infamous story of Paris and Helen of Troy, Furnham and Swami (2007) argue "[this tale] highlights the importance of physical beauty, or at least, the fact that human beings have always taken an interest in the beauty of others (although, of course, in the Judgment of Paris, it is the specific beauty that is judged - the beauty of women)" (Furnham & Swami, 2007, p. 4). Physical attractiveness fascinates us and has the potential to consume us. In fact, the beauty industry was valued at $5.32 billion dollars in 2019 (Biron, 2019). Beauty ideals and physical attractiveness have been associated with fertility (Singh, 1993a, 1993b), markers of health (Hume & Montgomerie, 2001; Folsom et al., 1993; Singh, 1993a, 1993b), life satisfaction (as cited in Holman, 2011), preferential treatment (as cited in Holman, 2011; Patzer, 1985), and financial benefits (Umberson & Hughes, 1987), as well as perceptions of being personable (Reis et al., 1980), likable (Ellis et al., 1983; Miller, 1970), and desirable (Dion et al., 1972).

Western Beauty Standards. For centuries, Pythagoras' and the ancient Greeks' mathematical aesthetic of beauty (i.e., "golden ratios') was considered the beauty ideal (Furnham & Swami, 2007) and continues to be perpetuated through the use of cosmetics to create the illusion of symmetry (Mulhern et al., 2003). From an evolutionary perspective, fertility and sexual desirability were considered an index of attractiveness, as exemplified by the waist-to-hip ratio (McBurney & Streeter, 2007; Singh, 1993a, 1993b) and breast size (Thompson et al., 2002). Additionally, the "myth of bodily perfection" has been cited as optimal, discounting individuals with any disfigurements or disabilities (Thompson et al., 2002). In more recent studies, "ideal" beauty has incorporated other characteristics as showcased by popular fashion magazine covers featuring models high in femininity, glamorization, and sexuality (Yan & Bissell, 2014). "Western" beauty ideals have been found to be dominant across magazine covers, even those distributed in non-Western regions, such as Latin America, South Africa, and Asia (Yan & Bissell, 2014).

Asian Beauty Ideals. Blepharoplasty (i.e., eyelid surgery to modify the epicanthic fold) is a common practice because of its ability to make an individual appear more youthful, "awake," and Western. Research has shown that this surgery is perceived as enhancing facial features, and is associated with perceived success in dating, marriage, and/or career (Frederick et al., 2016; Hall, 1995; Holliday & Elfving-Hwang, 2012; Kaw, 1993; Pham, 2014). According to Park and Suh (2009), face shape and size are also considered important markers of attractiveness in South Korea. Additionally, exposure to cartoon characters with large eyes (e.g., Asian animation) was found to shift people's preferences for larger eyes in real human faces (Chen et al., 2010).

A light or white complexion has been considered a symbol of globalization, wealth, and status (Bulloch, 2013; Glen, 2008; Saraswati, 2010). Among the Japanese, "whiteness" represents "Japaneseness" and has been considered a part of identity management (Ashikari, 2005; Miller, 2006). Among Koreans, light skin or "whiteness" is a symbol of purity, innocence, elegance, and virtue (Wang, 2015).

Throughout Chinese history, though plumpness was associated with longevity and fertility, there has been a constant fascination with being petite. For example, Lin Dai-yu was perceived as a role model for Chinese women and was famous for her fragility (A.D. 1368-1643). During the Han Dynasty (approximately 32-1B.C.), Empress Fei-yen was also notorious for being so thin she could "dance on a palm" (Xu, 1994).

Cosmetic Surgery and Asian Beauty

South Korea is widely considered the "world's plastic surgery capital" (Jacobs & Zheng, 2018). In 2015, South Korea was reported to have one of the highest rates of cosmetic surgery (International Society of Aesthetic Plastic Surgery, 2016) and is ranked in the top five countries with the most plastic surgeons (International Society of Aesthetic Plastic Surgery, 2019). South Korea has a "Beauty Belt" in the Gangnam District of Seoul where many of the country's cosmetic surgery clinics can be found (Jacobs & Zheng, 2018; Wang, 2015). One of the most common procedures performed in South Korea and America is blepharoplasty, which was first popularized in Korea during the 1950s by a U.S. Marine Corps plastic surgeon (American Society of Plastic Surgeons, 2019; Wang, 2015).

Among South Koreans, it has been hypothesized that the popularity and acceptance of cosmetic or aesthetic surgery is due to a desire for more "Westernized" features. Wang (2015), however, implicates complex historical and cultural factors, including: anti-Japanese sentiment derived from colonization; the importance of appearance in the competition for jobs; the rise of Korean pop culture (i.e., K-Pop); and beauty's association with cultural ideals of prosperity, auspiciousness, and success. Ultimately, aesthetic surgery serves as a way of developing a cultural identity that distinguishes South Koreans from other Asian groups, especially the Japanese (Wang, 2015). Beauty ideals, such as having large eyes, an innocent look, "double-eyelids," a pointed nose, and a "v-shaped" face, is starkly different from Asian-typical features (Wang, 2015).

In addition to historical and cultural factors, research has identified psychosocial issues that influence the acceptance and likelihood of cosmetic surgery, such as body dissatisfaction and body image disturbance (Brown et al., 2007; Cash et al., 2005; Lee, 2013), perceived attractiveness (Babadi et al., 2018; Henderson-King & Henderson-King, 2005), celebrity worship (Jung & Hwang, 2016; Swami et al., 2009), age (Henderson-King & Henderson-King, 2005), influence of media (Henderson-King & Brooks, 2009; Nerini et al., 2014; Sarwer et al., 2005; Sperry et al., 2009), exposure to friends' and family members' cosmetic surgery experience (Delinsky, 2005), and higher sensitivity to appearance-based rejection (Park et al., 2009). Notably, risk factors associated with the development of disordered eating, such as thin ideal internalization and self-objectification, have also influenced the relationship between body

dissatisfaction and acceptance/pursuit of cosmetic surgery (Calogero et al., 2010; Calogero et al., 2014; Lieberman et al., 2001; Nerini et al., 2014).

Of significant concern is the link between cosmetic surgery and poor psychological well-being. Von Soest and colleagues (2012) found that Norwegian adolescent patients who sought cosmetic surgery had symptoms of depression and anxiety and a history of self-harm, parasuicide, and illicit substance use. Notably, patients who underwent surgery during the study also experienced increased symptoms of depression, anxiety, alcohol use, and eating problems (von Soest et al., 2012). Positive attitudes towards cosmetic surgery were also commonly found in eating disordered patients who tended to purge, to associate success with appearance, and/or to engage in appearance-based comparisons (Coughlin et al., 2012).

Body dysmorphic disorder (BDD; an intense preoccupation of an imagined or exaggerated defect that causes significant distress and impairment) has been associated with the pursuit of cosmetic surgery (Kerfant et al., 2015). According to Kerfant et al.'s (2015) systematic review, approximately 6-15% of cosmetic surgery patients have BDD. Moreover, research suggests that cosmetic surgery does not consistently alleviate symptoms, such that 86% of patients with BDD continue to meet criteria for the disorder, though this may be moderated by the extent of the "deformity" and quality of life after surgery (Kerfant et al., 2015). Because of the association between cosmetic surgery and psychological concerns, especially among individuals with BDD, it may be instructive to examine the ways in which media influences BDD, which is one of the sources that contribute to the desire to undergo such procedures.

The Influence of Media

Mass media are widely identified as central influences that perpetuate the sociocultural pressure to be thin. As Mask and Blanchard note, "media's portrayal of thinness as a standard of female attractiveness is thought to play a determining role in women's contentious relationship with their bodies by pressuring them to lose weight and be thin" (Mask & Blanchard, 2011, p. 357). Unsurprisingly, pervasive media messages dictating how women are supposed to look, and associating these images with happiness, love, and success, have had negative repercussions.

Research has shown that internalization of the thin-ideal promoted by media predicts increased body dissatisfaction (Dakanalis et al., 2015; Rodgers, et al., 2015; Want, 2009) and disordered eating (Johnson & Edwards, 2015). Thin-ideal internalization has also been examined as a mediator for the media exposure-body dissatisfaction relationship (Thompson et al., 1999)

and as a moderator of sociocultural influences (e.g., media) on body dissatisfaction (Karazsia et al., 2013). Exposure to and internalization of the thin ideal have been associated with body dissatisfaction and disordered eating (Becker, 2004; Striegel-Moore & Bulik, 2007).

Media and Asian Beauty Standards

As previously discussed, aspirations to attain the thin ideal have maladaptive consequences; in addition, it is possible that aspirations to attain other beauty ideals may be related to disordered eating and psychological health. Cultural expectations for beauty have fashioned new behavioral patterns in Asian countries. These shifting behaviors and beauty ideals have their roots in modernization and economic reform. In the West, media has perpetuated the "thin ideal" and particular beauty ideals; similarly, media has also spread these ideals in the East. As Luo (2012) notes, the female body is associated with the postcolonial ideas of market economy, globalization, and national identity formation, with images of women used to sell products through media. As a result, certain types of female appearance and lifestyle are portrayed and idealized as symbols of prosperity (Brownell, 2001). This has always been true in many cultures, but what differs are the specific standards, degree of emphasis, and ubiquity of messages.

Brownell (2001) coined the term body culture to define the "particular practice of health, hygiene, fitness, beauty, and dress" to display this "beauty ideal" lifestyle in Chinese culture. For Filipinos, this ideal is represented by the term "Amerikano," which is a loose term used to refer to the West and its representation of opportunity, wealth, comfort, and "white" superiority (Bulloch, 2013). In India, the desire to be light-skinned is tied to caste privilege, in that light-skinned individuals were those whose wealth enabled them to work indoors, unlike the darker-skinned field workers (Glenn, 2008). For Indonesians, "whiteness" is the embodiment of cosmopolitanism, a virtual and transnational ideal (Saraswati, 2010).

Such beauty ideals can have insidious adverse effects, especially for women. The ability to discipline one's body to conform to beauty standards signals a sense of power and control; at the same time, an inability to conform represents weakness and powerlessness (Luo, 2012). Failure to meet idealized standards may create internal shame, such that Asian women believe they are disappointing their family or in-group by "falling short". This internal shame may be manifested through body dissatisfaction or low self-esteem and impact psychological well-being.

Other Unique Risk Considerations for Asian Americans and Asian Nationals

According to Kawamura (2002), risk factors for body image distortion and disordered eating among Japanese women include adherence to a strict and distinct social hierarchy, emotional restraint, need for social approval, and desire to avoid bringing shame on the family. High parental expectations have been identified as a common risk factor; these include: desire to gain parental approval; family recognition through achievement in academics, career, and/or appearance; and management of family criticism about weight, eating, and appearance (Chang et al., 2014; Isono, Watkins, & Lian, 2009; Peng & Wright, 1994; Pike & Borovoy, 2004; Smart & Tsong, 2014; Ting & Hwang, 2007; Tsong & Smart, 2015). In addition, Asian American women may be subjected to sexist and racial stereotypes, such as assumptions that they should be petite or feminine, or the expectation that they should meet Western standards for physical appearance (e.g., facial features, skin color, height) that are difficult or impossible for Asian women to fulfill (Hall, 1995). Due to the additional pressure from cultural values, Asian American women must navigate traditional Asian values and mainstream American culture, possibly making them more vulnerable to body dissatisfaction and disordered eating (Tsong & Smart, 2015; Wonderlich, et al., 2007).

Individualism vs. Collectivism

A clearer understanding of differences in cultural ideologies and the ways in which these shape ideals and expectations may help identify and explain any risk factors that may be unique to or especially salient for Asians. As described by Triandis (1995), individualistic societies value self-sufficiency, independence, self-glorification, status, power, personal preferences, needs, and rights. In contrast, collectivistic cultures value harmony, tolerance, filial piety, chastity, and the norms and duties imposed by the collective society, such as family, tribe, or nation. Triandis and colleagues (1988) concluded, however, that no society is purely individualistic or collectivistic; rather, these values are situation-specific, and values from each orientation can jointly comprise a culture.

Related to these orientations are the concepts of looseness and tightness. Tightness refers to the extent to which individuals within a culture: agree on what is the "right" action; believe that individuals must behave according to cultural norms; and give or receive criticism for deviations from cultural norms (Pelto, 1968). On the other hand, loose cultures are typically associated with heterogeneous societies with varying norms, within which deviations from usual

behavior are not necessarily punished but may be reinforced for the independence they display (Robbins et al., 1972). If a tight, collectivistic culture imposes values for how one should behave or look, it is not surprising that individuals of that culture would be more motivated to adhere to those values, if only to "save face" or dodge criticism.

Most Asian countries are considered collectivistic, exerting increased pressure for adherence to cultural ideals imposed by these societies. The constructs of "internal shame" and "saving face" provide illustrative examples. As defined by Western individualized societies, internal shame is experienced by individuals when they do not meet their own expectations. Internal shame is thought to differ within Asian cultures, however, arising when one does not meet the rules and expectations of the community, and is said to be tied to the fear of rejection and loss of familial and community support (Young, 1997).

Asian Values

Equally important is the recognition of specific Asian values that go beyond collectivism. East Asian countries, such as South Korea, China, and Japan have traditionally derived their cultural principles from Confucianism (Oh & Lee, 2014); whereas for Filipinos, the mélange of Spanish and American colonization, Confucius teachings, Buddhism, and Malaysian and Indonesian influences assisted in the formation of their code of comportment (Salvador et al., 1997). To bridge and measure these differing beliefs, Kim, Atkinson, and Yang (1999) developed the Asian Values Scale based on similar cultural values held by various Asian American ethnic groups (i.e., Japanese, Chinese, Filipino, and Korean). The identified common beliefs were collectivism, conformity to norms, emotional self-control, family recognition through achievement, filial piety, and humility. Although the Asian Values Scale was developed to reflect cultural beliefs that are typically held by Asians in America, this scale has also been used for studies in South Korea (Lee, 2006; Lee et al., 2018) and the Philippines (Magno, 2010).

For individuals who are Asian American immigrants, the concepts of enculturation (i.e., process of adapting to the norms of one's native culture) and acculturation (i.e., how much assimilation into the dominant culture) help to describe the decision-making process of applying certain values to their self-concept (Matsumoto & Juang, 2013). According to symbolic interaction theory, individuals develop their self-concept based on reflected appraisals (i.e., beliefs about how they are perceived by others), such that their identity is partly construed by perceptions or evaluations that others have of them (Alvarez & Helms, 2001; Aksan, Kisac,

Aydin, & Demirbuken, 2009). For Asian culture's collectivistic values of harmony and conforming to group norms, symbolic interaction helps to explain the importance that cultural values may play in Asian identity. If an Asian individual highly appraises their culture's values, then it may be important for their self-concept to adhere to these ideals including standards about beauty.

Upon examining cultural beliefs in disordered eating among Asian American women, particular values related to family recognition through achievement and emotional self-control were significant predictors of disordered eating (Tsong & Smart, 2015). Additionally, Han (2020) found that tensions from intergenerational conflict and pursuit of family recognition influenced binge-eating and restriction only when certain psychological needs (e.g., autonomy, competence, connectedness) were not met. Furthermore, conformity to norms was directly associated with restricted eating (Han, 2020). On the other hand, emotional impulsivity and loss of control over eating were found to be moderated by adherence to cultural beliefs among Asian/Asian American men, such that lower levels of subscription to cultural beliefs was tied to an increased tendency to regulate negative emotions by eating (Guidinger et al., 2020).

Ethnic-Racial Identity

Because Asian values appear to be associated with disordered eating, identifying the extent to which values are part of one's identity may be informative. To capture these influences, the construct of ethnic-racial identity has been developed and defined in three ways: a) acculturation; b) ethnic identity (e.g., sense of belonging and positivity to a particular ethnic group); and c) racial identity (e.g., racial regard, racial ideology, racial centrality). The present study included an examination of ethnic-racial identity (ERI), a synthesis of the constructs of ethnic and racial identity that encapsulates individuals' ethnic background and their racialized experiences (Umana-Taylor et al., 2014). The ethnic-racial identification process includes self-labeling (self and other), ethnic-racial knowledge (e.g., cultural practices), and ethnic racial constancy, as well as specific components such as exploration (i.e., ethnic identity search) and centrality (i.e., group membership is part of one's individual identity) (Phinney, 1992; Sellers et al., 1998).

In exploring the relationship between ethnic identity and disordered eating among Asians, ethnic identity has been examined through the construct of acculturation. With this definition of ethnic identity, previous research has produced mixed findings regarding the association between ethnic identity and disordered eating. Some results indicate a negative association between ethnic

identity and eating pathology (Henrickson et al., 2010; Stein et al., 2010) or no association (Stark-Wroblewski, 2005; Yoshimura, 1995); others suggest that ethnic identity may serve as a protective factor against thin-ideal internalization and eating pathology (Rakhkovskaya & Warren, 2014; Rhea & Thatcher, 2013).

Ting and Hwang (2007) proposed that intergenerational cultural strain can occur when acculturated daughters misunderstand their parents' expressions of love and care due to culturally-normative parenting, such as criticism and shame regarding weight and appearance. Consistent with this analysis, Lau et al. (2006) found that Asian Americans with higher levels of body dissatisfaction endorsed a stronger identification (i.e., centrality) with traditional Asian values. It is possible that parental expectations regarding appearance may contribute to relationship strain and body dissatisfaction for individuals who strongly identify with traditional Asian values, such as needing parental approval. It is possible that ethnic-racial centrality determines how influential Asian values are for individuals.

In a study by Obleada and Bennett (2020), the interrelationship between primary ethnic identification, ethnic-racial identity (i.e., centrality, in-group affect), and disordered eating (i.e., eating, shape, and weight concerns) was examined. Results demonstrated that ethnic-racial identity centrality significantly moderated the effect of primary ethnic identification on eating concerns when identifying as Asian. This suggests that for Asian individuals, the degree to which eating concerns are distressing is moderated by how important ethnicity is to one's identity.

Multiethnicity and Identity Integration

Multiethnicity refers to individuals who identify with more than one ethnicity. Historically, identifying as a multiethnic individual has been fraught with controversy and confusion. Amerasians or multiethnic individuals with Asian descent have had difficulties being welcomed by their own ethnic groups (Spickard, 1997). Until the 1970s, Asian communities in the U.S. typically shunned these individuals, which compounded subdominant (i.e., Asian) and dominant (i.e., White) discourses of not belonging (Spickard, 1997). Although these messages have changed with more Asian communities embracing Amerasians, the complete integration of Amerasians' multiethnic identity has continued to be complex.

Research has demonstrated that it is slowly becoming more common for individuals to identify as multiethnic rather than with a single ethnic group (Spickard, 1997). Studies examining multiracial individuals (i.e., individuals who identify with more than one race) have

suggested that there is malleability in the ways that multiracial individuals identify (Pauker et al., 2018). This may also help provide insight on how multiethnic individuals identify with their various ethnicities. Multiracial or biracial versus monoracial identification may be a consequence of social hierarchical status (Lou & Lalonde, 2015; Townsend et al., 2012), physical appearance (Spickard, 1997), racialized experiences (Coleman & Carter, 2007; Townsend et al., 2009), or interactions with the racial/ethnic groups to which they belong (Lou & Lalonde, 2015; Spickard, 1997). Classifying oneself as multiracial has been associated with positive psychological outcomes (Binning et al., 2009; Cheng & Lee, 2009; Shih & Sanchez, 2005) and pressures to identify as monoracial, including not being given a multiracial or biracial option, has been associated with perceived discrimination, low self-esteem, social anxiety, and fears of negative evaluation (Coleman & Carter, 2007; Townsend et al., 2009).

To better understand how multiracial individuals make decisions about their identification, a multidimensional framework was developed to capture their nuanced experiences (Rockquemore, 1998; Rockquemore & Brunsma, 2002). Rockquemore and Brunsma (2002) recognized that multiracial identities are fluid and dynamic rather than fixed. Similar to Berry's model of acculturation, they describe several categories to depict how individuals shift from one identity to the next or integrate their identities (i.e., cultural frame switching): singular identity (exclusively monoracial), border identity (exclusively biracial or multiethnic, unvalidated border identity), protean identity (multiple choices), or transcendent identity (beyond race). Individuals characterized as unvalidated border identity are those who classify themselves as biracial but others may not accept or acknowledge the significance of being biracial. Protean identity individuals are those who shift between identities depending on the context; transcendent identity individuals are those who bypass racial categorization and identify as "human" (Lou & Lalonde, 2015; Rockquemore, 1998; Rockquemore & Brunsma, 2002). Although this model was developed specifically to capture biracial peoples' experiences, Lawton and Foeman's (2017) qualitative study examining ancestry DNA and experiences of multiracial individuals yielded similar categories of identification, indicating that this model may also be suitable in encapsulating multiracial and multiethnic people's experiences.

In conceptualizing multiracial identity integration, Cheng and Lee (2009) describe two psychological constructs: racial distance (i.e., beliefs related to one's multiple identities as being separate) and racial conflict (i.e., beliefs related to conflicts or contradictions in values or norms

between one’s multiple identities). Research examining how these concepts interacted with psychological adjustment indicated that individuals with low racial conflict or low racial distance with high levels of multiracial identity integration had higher levels of psychological adjustment (Jackson et al., 2012). For individuals categorized as unvalidated border identity, lower racial conflict moderated the relationship between perceived racial discrimination and psychological adjustment, suggesting that for these individuals, experiencing less conflict between their identities helps to buffer the negative feelings associated with perceived racial discrimination (Jackson et al., 2012). This process of achieving a stable identity (i.e., ethnic identity resolution; Umaña-Taylor et al., 2004) has also been shown to buffer against frequent negative body talk for Latina and Asian women (Sladek et al., 2018).

Of particular interest is how physical appearance plays a role in identity integration. According to Spickard (1997), discourse about interracial issues and studies with children from intermarriages found that some individuals identified with a particular ethnicity because they shared phenotypic features, whereas other individuals identified with a particular ethnicity despite not sharing phenotypic features. As previously noted, identification may be a consequence of racialized experiences based on others’ perceptions of their physical appearance and ethnicity. Given these phenomena, it may be informative to survey how ethnic or multiethnic identity is associated with physical appearance and how the interaction between those two may impact psychological well-being.

Development of the Aspects of Appearance Measure

The Aspects of Appearance Measure was created to address the need for research exploring how Asian beauty standards may impact body dissatisfaction and disordered eating. Using both a quantitative and qualitative approach, two groups of participants assisted in the development, modification, and evaluation of measure content: undergraduate research participants and clinical psychology graduate students at the University of Hawai‘i. There were four stages in overall measurement development.

Stage 1: Item Generation

Items were generated on the basis of ethnic-racial identity theory, self-objectification theory, thin-ideal internalization, and popular Asian beauty trends and practices. Additional items were generated based on information from a pilot study. This 33-item scale was designed to measure an individual’s preference for particular Asian beauty ideals. Participants are asked to

rate items concerning physical appearance, such as facial features, skin tone, and body shape on a 6-point Likert scale (0 = *I never think about this*, 1 = *Definitely disagree*, 2 = *Mostly disagree*, 3 = *Somewhat disagree*, 4 = *Somewhat agree*, 5 = *Mostly agree*, 6 = *Definitely agree*).

Pilot Study. A pilot study (*N* = 94) was conducted to refine the AAM. The pilot study also collected preliminary data on correlations between this measure and type (e.g., magazines, television shows, movies, social media) and amount of media consumption. Additionally, to explore the clarity and comprehensibility of items on the piloted measure, qualitative interviews were conducted with a subset of participants. Another aim was to qualitatively explore any differences among ethnic groups (e.g., South Korean nationals, Chinese nationals, Japanese nationals, Asian Americans, European Americans) in perceived pressure concerning appearance. I predicted that some appearance items (e.g., bust size, body shape) would be endorsed similarly by all ethnic groups examined, while others (e.g., face shape, eye shape, skin color) would differ across ethnic groups. I hoped to identify differences and similarities in beauty ideals among varying ethnicities (e.g., Asian nationals vs. Asian Americans vs. European Americans). The information obtained through this pilot research was used to refine the new measure for inclusion in the subsequent survey examining beauty ideals, body dissatisfaction, and their associations with psychological well-being.

The Asian and Western Media Appearance Preference Scales and the Body Comparison Scale were used to identify any associations among beauty ideals and body comparison related measures. The Asian Perception subscale of the Asian Phenotype Measure explored how others' perceptions of Asian identity may be related to beauty ideals and body comparisons. Other research questions were whether Asian nationals and/or Asian Americans experience added pressure concerning their appearance. The Perceived Asian and Western Media Appearance Pressure Scales (PAWMAPS) and Sociocultural Attitudes Towards Appearance Questionnaire-4 (SATAQ-4) were included to assess how perceived pressure from media, peers, and family is related to subscription to certain beauty ideals. Additionally, type and amount of media consumption were assessed to explore associations with perceived pressure, subscription to beauty ideals, and body comparisons. I expected that Asian nationals experience cultural pressures and Asian Americans experience added pressures (i.e., pressures from traditional culture and mainstream Western culture) concerning their appearance that would be positively associated with body dissatisfaction and with media consumption.

Pilot Data Analyses and Results. The pilot sample included 94 female undergraduate students with a mean age of 19.93 years (*SD* =3.71). Based on the ethnicity with which participants primarily identified, the demographic breakdown was as follows: White (37.20%), Filipino (12.80%), Japanese (12.80%), Hispanic/Latina (9.30%), Chinese (4.70%), Native Hawaiian (5.80%), Other Pacific Islander (3.50%), Other (3.50%), Black or African American (3.50%), Okinawan (2.30%), Vietnamese (2.30%), Korean (1.20%), and American Indian or Alaska Native (1.20%). Despite substantial effort, a sufficient sample of Asian nationals could not be recruited. Data were analyzed for comprehension and clarity of items. There was no pattern of omitted items, with six people excluded from analysis due to missing data.

An exploratory factor analysis (EFA) using maximum likelihood and oblique rotation was used to examine the factor structure of the AAM and identify any potential items for deletion. Various iterations of the EFA were conducted until a two-factor structure was determined, with 9 items loading on Factor 1 and 10 items on Factor 2 (see Appendix B, Table 12). Items with low primary factor loadings and cross-loading items were considered for deletion. Low primary loadings were defined as a primary loading of 0.40 or less (Schaefer et al., 2015). Cross factor loadings were defined as having a small gap between the primary and secondary loading (i.e., less than 0.20 part) or as having a secondary factor loading of 0.30 or higher (Schaefer et al., 2015). Within these parameters, 11 items would be deleted. Cronbach's alpha was as follows: Factor 1 (α = .82) and Factor 2 (α = .82). The EFA and Cronbach's alpha analyses were conducted using SPSS 24.0. As the majority of participants surveyed in this pilot study were White/European, however, the items considered for deletion were retained in the measure and were further analyzed in the current study, with the goal of recruiting a larger sample of Asian nationals and Asian Americans.

Stage 2: Model Fit Analyses

According to the results of the pilot study, a two-factor model was derived from an EFA; however, the EFA suggested deletion of several items (e.g., *I prefer double-eyelids rather than mono-eyelids*) that were considered conceptually important in capturing specific Asian beauty ideals. Therefore, a theoretically-driven, two-factor model was proposed and tested using CFA analyses (see Table 2). The resulting analyses identified the factors labeled as 1) *Hair, Skin, and Face* and 2) *Body and Looks*.

Although this model did not meet adequate fit indices, it was the better fitting model among the three iterative models based on CFA and EFA analyses (see Appendix B, Table 15). One possible reason for the failure of the CFA model to meet adequate fit indices is that some items may have been redundant and too highly correlated with each other. Another possibility is that a third variable may need to be considered, and items that correspond with this variable may need to be added to help in discriminant validity.

Stage 3: Reliability

Cronbach's alpha coefficients were acceptable for *Hair, Skin, and Face* ($\alpha = .90$) and *Body and Looks* ($\alpha = .86$). The AAM means and standard deviations for the current sample were as follows: Factor 1 ($M = 41.32$, $SD = 22.13$) and Factor 2 ($M = 42.26$, $SD = 16.13$). Composite reliability was calculated to be .99, which is considered to have strong internal consistency.

Stage 4: Convergent and Discriminant Validity

In exploring construct validity, findings showed strong correlations with similar items on other established measures (e.g., SATAQ-4, Body Comparison Scale, PAWMAPS; see Appendix B for table of correlations). Interestingly, some facial items were also positively correlated with the Thin/Low Body Fat Ideal Internalization subscale on the SATAQ-4, which may be due to weight gain evident on the body and face. Contrary to hypotheses, facial items on the AAM were not significantly correlated with the Peer Pressure subscale on the SATAQ-4; however, facial items on the AAM were significantly correlated with the Media Pressure subscale. These results imply that facial beauty values are not perpetuated principally by peers but are influenced by the media.

Notably, only two facial items on the AAM (i.e., “double-eyelids,” “not wear a lot of make-up”) were not significantly correlated with facial items on the Body Comparison-European subscale, which did not support the hypothesis that facial items would only be significantly correlated only with the Body Comparison-Asian subscale. This suggests that some facial beauty ideals are shared by both European Americans and Asian Americans. Only four items on the AAM (i.e., “thin or chopstick legs,” “double eye-lids,” “stay out of the sun,” “not wear a lot of make-up”) were not significantly correlated with most items on the Perceived Western Media Appearance Pressure subscale. These results suggest that these four AAM items may be unique to Asian beauty ideals, whereas other items may hold similar value among Asian Americans and European Americans.

In calculating discriminant validity, average variance extracted for *Hair, Skin, and Face* factor subscale was 0.95. For the *Body and Looks* subscale, average variance extracted was 0.96. Both calculations meet the recommendation of being at least 0.50 for all constructs (Fornell & Larker, 1981; Tseng et al., 2006).

Preliminary Comparisons Based on the AAM

Inspection of Q-Q Plots revealed that responses on the AAM total score and *Hair, Skin, and Face* subscale were normally distributed for both Asian Americans and European Americans and that there was homogeneity of variance as assessed by Levene's Test for Equality of Variances. Therefore, an independent *t*-test was run on the data with a 95% confidence interval (CI) for the mean difference. It was found that AAM total scores in the Asian American group (87.94 $\pm$ 37.27) were not significantly higher than in the European American group (78.84 $\pm$ 31.21) ($t(213) = 1.71$, $p = .09$). In comparing scores on the AAM subscales, Asian American scores on the *Hair, Skin, and Face* subscale were not significantly higher (44.59 $\pm$ 22.64) than European American scores (38.57 $\pm$ 19.55) ($t(213) = 1.84$, $p = .07$. However, the Shapiro-Wilks test revealed that responses were not normally distributed for either Asian Americans or European Americans on the *Body and Looks* subscale. Therefore, a Mann-Whitney *U* test showed that there was not a significant difference ($U = 4091.00$, $p = .09$) between the two groups. The median score on the *Body and Looks* subscale for the Asian American group was 46 compared to 41 for European Americans.

Because the AAM has a Likert response scale that includes zeros (i.e., *Never think about this*), subsequent analyses were conducted to determine the frequency with which participants responded to items with a zero. For most of the items, 20-50% of participants endorsed having never thought about that specific item (e.g., *I prefer double-eyelids rather than mono-eyelids*). To examine the implications of the initial scoring decision, zeros were treated as missing values and comparative analyses between Asian Americans and European Americans were re-run.

Inspection of Q-Q Plots revealed that responses on the AAM total score and both subscales were normally distributed for both Asian Americans and European Americans, and that there was homogeneity of variance as assessed by Levene's Test for Equality of Variances. An independent *t*-test was run on the data with a 95% confidence interval (CI) for the mean difference. It was found that AAM total scores in the Asian American group (89.71 $\pm$ 35.46) were significantly higher than in the European American group (78.84 $\pm$ 31.21) ($t(212) = 2.11$,

p = .04). In comparing scores on the AAM subscales, Asian American scores on the *Hair, Skin, and Face* subscale were significantly higher (45.49 ± 21.95) than European American scores (38.57 ± 19.54) ($t(212) = 2.17$, $p = .03$. On the *Body and Looks* subscale, Asian American scores (44.22 ± 15.58) were not significantly higher than European American scores (40.92 ± 13.09) ($t(212) = 1.47$, $p = .14$).

Considerations for Refinement of the AAM

In making comparisons of scores between European Americans and Asian Americans, significant differences specifically on the *Hair, Skin, and Face* subscale varied according to how responses on the Likert scale were treated (i.e., zeros treated as missing or zeros included in the sum to create scores). To resolve this issue, the Likert scale was revised for this study by changing the continuum labels (i.e., from extent of agreement to extent of importance or relevance) to better represent the constructs being evaluated. Items from the AAM were also modified to be more reflective of capturing beauty values that are of particular importance to the individual (see Table 1). Given that the AAM was developed using a sample in which 50% of participants identified as multiethnic, it may also be important to further investigate the appearance-related influences on multiethnic individuals.

Current Study

Based on Obleada's (2019) master's thesis, the current study had three aims: (a) refine the newly developed Aspects of Appearance Measure and (b) examine aspects of validity in national Asian samples and Asian American samples from the continental United States, and (c) explore relationships among various risk factors related to disordered eating. To narrow the scope of the research, this study focuses on comparisons between Filipinos and South Koreans living in their respective countries and in the United States. Because only a small number of Filipinos were successfully recruited for the study, results for this group will be described briefly.

Aim 1. Measurement Refinement

Based on preliminary findings and further reflection on the constructs of interest, some AAM items were reworded to better capture the extent to which individuals personally aspire to match these beauty standards rather than their general endorsement of these ideals. Because of the high correlation among items and concerns with model fit, a bifactor model approach was taken to re-evaluate the measure psychometrically. According to Rodriguez and colleagues (2016), bifactor models are used to (a) partition general and group sources of variance, (b)

control for multidimensional models that are actually unidimensional models with subtle differences, (c) determine whether a unidimensional model is more appropriate, and (d) decide whether a true score is sufficient or calculation of subscale scores is preferable.

Aim 2. AAM Validation

The validity of the revised measure was examined by collecting data from participants in the Philippines, South Korea, and the United States, including subgroups from Boston University and the University of Hawaiʻi at Mānoa. Measurement invariance was conducted to examine any group differences in responses, such that comparisons determined whether groups (i.e., South Koreans, European Americans, Asian Americans) vary from each other on this psychological construct or if there were psychometric problems within the measure. Additional measures examining common risk factors for eating disorders, ethnic-racial identity, and other unique risk factors to Asians were also administered.

Aim 3. Preliminary Exploration of Various Risk Factors

Preliminary analyses of relationships among various risk factors are considered an important steppingstone in the eventual development of a model of beauty ideals and disordered eating. Thus, an examination of common risk factors for eating disorders was conducted. In addition, the possible roles of ethnic-racial identification and unique risk factors that may be specific to Asians were explored.

To ensure that measures were culturally relevant for all populations, a different body image measure was selected from that used in Obleada's (2019) thesis research. Additionally, all measures used in South Korea were translated to Korean (see Appendix D for process). Korean versions of some of the included measures were already available (i.e., Eating Disorder Examination Questionnaire, Depression Anxiety Stress Scales, Body Shape Questionnaire, Sociocultural Attitudes Towards Appearance Questionnaire). The remainder (i.e., Aspects of Appearance Measure, Asian Values Scale-Revised, Acceptance of Cosmetic Surgery, Weight Bias Internalized Scale-Modified, additional media questions) were translated for use in this study. Two graduate students who are native Korean speakers and fluent in English participated in translating and back translating these questionnaires (See Appendix D). Discrepancies were reconciled through a review by the senior researcher and Dr. Kelly Vitousek.

The Body Shape Questionnaire – Brief Form (BSQ-8C; Cooper et al., 1987; Evans & Dolan, 1993) was used to measure body dissatisfaction. The Acceptance of Cosmetic Surgery Scale

(Henderson-King & Henderson-King, 2005) and the Weight Bias Internalization Scale- Modified (Pearl & Puhl, 2014) assessed bias related to particular appearance ideals. The Sociocultural Attitudes Towards Appearance Questionnaire-4 (Schaefer et al., 2015) examined how perceived pressure may influence subscription to certain beauty ideals. Developed media items assessing type and amount of media consumption examined associations with perceived pressure and body dissatisfaction.

Ethnic background was measured using demographic items. Ethnic-racial identity was measured using the Ethnic-Racial Identity scales (ERI; Wilson & Leaper, 2016), the Asian Phenotype Scale (Nadal, 2007), supplemented with additional questions evaluating the importance of phenotypically matching with primary-identified ethnic group. Asian values were evaluated using the Asian Values Scale-Revised (AVS-R; Kim & Hong, 2004), and ethnic background was captured using demographic items. Disordered eating was assessed using the Eating Disorders Examination Questionnaire (EDE-Q; Fairburn & Beglin, 2008); psychological well-being was assessed using the Depression Anxiety Stress Scales (DASS; Lovibond & Lovibond, 1995).

The goals of this research were to refine a developed measure of Asian beauty and assess its utility with Americans and Asian nationals. Furthermore, this research aimed to gather preliminary data relevant to comparing responses on the AAM across groups. Finally, this study also explored relationships among common risk factors for eating disorders and unique risk factors for Asians.

Hypotheses

Aim 1. Measure Refinement.

- I hypothesized that rewording measure items will reduce the high correlations between them and better distinguish between Asian and Western beauty values.
- I hypothesized that bifactor analyses will reveal that the AAM is better conceptualized as a unidimensional model.

Aim 2. AAM Validation.

- I predicted that Asian nationals would have higher scores on the AAM compared to European and Asian Americans.
- I predicted that Asian Americans would have higher scores on the AAM compared to European Americans.

- On the *Hair, Skin, and Face* subscale, I predicted Asian nationals would obtain the highest scores among all participant groups.

Aim 3. Preliminary Exploration of Various Risk Factors.

- I hypothesized that Asian nationals experience pressures and Asian Americans experience added pressures concerning their appearance that will be positively associated with body dissatisfaction.
- It is predicted that ethnic-racial identity, specifically centrality and felt conformity pressure, will be strongly related to disordered eating in Asian Americans and Asian nationals than in European Americans, such that higher scores on centrality and felt conformity pressure will be significantly associated with disordered eating.
- I hypothesized that higher endorsement of Asian values will be significantly related to disordered eating.
- I hypothesized that National South Koreans would have significantly higher scores on Acceptance of Cosmetic Surgery compared to European and Asian Americans.
- I proposed that internalized weight bias will be positively associated with endorsement of Asian values.
- I predicted that higher scores on the AAM will be positively associated with internalized weight bias, body dissatisfaction, sociocultural pressures, depression, anxiety, and disordered eating.

CHAPTER 2. METHODS

Participants

This study recruited three sample groups: 147 participants (M_{age} = 21.01; *SD* = 5.28) from the University of Hawai‘i at Mānoa, 97 participants (M_{age} = 19.26; *SD* = 2.76) from Boston University, and 211 Asian national participants from professional connections in South Korea (*n* = 196; M_{age} = 29.75; *SD* = 6.99) and the Philippines (*n* = 15; M_{age} = 25.07; *SD* = 6.70). Total sample size was 455 (see Table 11 for demographic breakdown at each site).

Measures

Demographics

Participants were asked to provide demographic information such as age, gender, ethnicity, sexual orientation, and years of education completed. The demographic questionnaires for each site can be found in Appendix C.

Aspects of Appearance Measure (AAM)

The Aspects of Appearance Measure is a 33-item scale developed for the present study and designed to measure an individual's preference for particular Asian beauty ideals (see Appendix C). Participants were asked to rate the extent to which certain items concerning physical appearance, such as facial features, skin tone, and body shape are true for them on a 5-point Likert scale (1 = *False, not at all true*, 2 = *Slightly true*, 3 = *Somewhat true*, 4 = *Mostly true*, 5 = *Very true*). Using MPlus 8.4, scores were calculated by creating a factor score based on results from the CFA.

Price I'd Pay Measure (PIP)

An additional measure was developed and piloted in this study to assess the extent to which individuals would be willing to make personal sacrifices or compromises to meet their appearance ideals. This measure consists of 8 items and uses a 7-point Likert scale (i.e., 1 = *Strongly disagree*, 7 = *Strongly agree*). Sample items include, *I would be willing to pay a high personal price to achieve my ideals for physical attractiveness* and *If necessary, I would give up some other values to fulfill my beauty ideals*. Scores were calculated by creating a factor score based on results from an EFA.

Sociocultural Attitudes Towards Appearance Scale- 4 (SATAQ-4)

The SATAQ-4 was developed to assess sociocultural influences and internalization of appearance ideals (Schaefer et al., 2015; see Appendix C). This measure consists of 22 items on

five subscales (thin/low body fat internalization, muscular/athletic internalization, family pressure, peer pressure, and media pressure), and utilizes a 5-point Likert scale (1 = *Definitely disagree*, 2 = *Mostly disagree*, 3 = *Neither agree nor disagree*, 4 = *Mostly agree*, and 5 = *Definitely agree*). Sample items include, *It is important for me to look athletic* and *I feel pressure from the media to look in better shape*. The SATAQ-4 contains five scales: Thin/Low Body Fat Internalization, Muscle/Athletic Internalization, Family Pressure, Peer Pressure, and Media Pressure; scores are calculated by summing each of the items in each scale. This measure has been studied with U.S. female, non-U.S. female, and U.S. male samples. Cronbach's alpha for the SATAQ-4 subscale scores were .82 or higher for U.S. women and .84 or higher for non-U.S. women (Schaefer et al., 2015).

Body Shape Questionnaire -Brief Form (BSQ-8C)

This 8-item measure assesses concerns related to body shape (Cooper et al., 1987; Evans & Dolan, 1993). Using a 6-point Likert scale (i.e., *Never* to *Always*), participants responded to questions regarding their body shape concern over the past four weeks; for example, *have you been afraid that you might become fat or (fatter)*? A total score is calculated by summing each of the items, and higher scores on this measure indicate greater body dissatisfaction. Based on community and clinical samples of women, psychometric analyses have demonstrated good concurrent and discriminative validity (Cooper et al., 1987). Psychometric properties for the BSQ-8C have also demonstrated high test-retest reliability ($r = .95$), internal consistency (Cronbach's alpha = .92), and convergent validity with the Shape Concern subscale from the EDE-Q ($r = .90$, $p < .001$; Welch et al., 2012).

Eating Disorder Examination-Questionnaire (EDE-Q)

The EDE-Q is a 28-question survey that provides a comprehensive assessment of eating disorder psychopathology and related behaviors (Fairburn & Beglin, 2008; see Appendix C). Sample items include, *Have you gone for long periods of time (8 waking hours or more) without eating anything at all in order to influence your shape or weight?* and *Over the past 14 days, how many times have you exercised in a "driven" or "compulsive" way as a means of controlling your weight, shape or amount of fat, or to burn off calories?* The EDE-Q is comprised of four scales: Dietary Restraint, Weight Concern, Shape Concern, and Eating Concern with mean scores calculated for each scale. A total EDE global score is calculated as the mean of the four scales. EDE-Q subscale items are rated on a 7-point Likert scale (0–6), with

higher scores reflecting greater severity or frequency. In a study of 91 male and female healthy college students, internal consistency was higher for women, with Cronbach's alphas greater than .75 at both time 1 and time 2 (Rose et al., 2013). Among women, the 7-day test-retest reliabilities were generally high for all subscales: Dietary Restraint (r = .78), Eating Concern (r = .83), Shape Concern (r = .87), and Weight Concern (r = .90) (Rose et al., 2013).

Acceptance of Cosmetic Surgery Scale (ACSS)

Henderson-King and Henderson-King (2005) developed this scale, which consists of 15 items and measures three attitudes related to cosmetic surgery: (1) Intrapersonal (i.e., self-oriented benefits of cosmetic surgery); (2) Social (i.e., social motivations for cosmetic surgery); (3) Consider (i.e., likelihood of having cosmetic surgery). Sample items include, *Cosmetic surgery can be a big benefit to people's self-image* and *I would never have any kind of plastic surgery*. Participants rate the extent to which they agree with each attitudinal statement on a 7-point Likert scale (i.e., 1 = *Strongly disagree*, 7 = *Strongly agree*). A mean score for each of the subscales with higher scores indicating greater acceptance of cosmetic surgery. This measure has demonstrated good convergent and discriminant validity, internal reliability, and internal consistency with an undergraduate sample of men and women (Henderson-King & Henderson-King, 2005). In the Swami et al. (2012) study with females in the United Kingdom, Cronbach alpha coefficients were high for each of the subscales: Intrapersonal (.94), Social (.93), and Consider (.86).

Weight Bias Internalization Scale-Modified (WBIS-M)

This 11-item measure is based on the Weight Bias Internalization Scale (Durso & Latner, 2008; Pearl & Puhl, 2014) and assesses internalized weight bias. In the modified version of the scale, the authors changed the word "overweight" to "my weight" to make the scale accessible to individuals from diverse weight backgrounds. Sample items include, *Because of my weight, I feel that I am just as competent as anyone* and *I wish I could drastically change my weight*. Participants then rate the extent to which they agree with each statement on a Likert-type scale ranging from 1 (*Strongly disagree*) to 7 (*Strongly agree*). A mean total score is calculated with higher scores indicating greater internalized weight bias. Based on a sample of 150 community participants, Cronbach's alpha was .94 (Pearl & Puhl, 2014).

Asian Phenotype Scale, Asian Perception Subscale

This four-item subscale assesses self-perception of Asian phenotype but has been modified to assess self-perception of primary racial/ethnic phenotype (Nadal, 2007; see Appendix C). Sample items are, *I believe that I look like my primary race/ethnicity group* and *I believe that my physical appearance matches what society typically views as my primary race/ethnicity*. Items are measured on a 5-point Likert scale ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*). Overall scores were derived by summing the responses for each item and dividing by the number of non-missing items. This measure was created as part of a dissertation, with results from a sample of 357 undergraduate participants yielding an internal consistency reliability of $\alpha = .88$ (Nadal, 2007).

Asian Values Scale-Revised (AVS-R)

This measure assesses endorsement of Asian cultural values (Kim & Hong, 2004). Using the Rasch model, the original 36-item Asian Values Scale (AVS; Kim et al., 1999) was revised and reduced to 25 items. Additionally, the Likert-scale was modified from a 7-point to a 4-point scale ranging from (1) *Strongly disagree* to (4) *Strongly agree*. Sample items include, *One should not make waves* and *Modesty is an important quality for a person*. A mean overall score is calculated with higher scores indicating greater endorsement of Asian values. Based on a large sample of undergraduate students from California and Hawaiʻi, the original AVS demonstrated good test-retest reliability (.83) and good internal consistency coefficients of .81 and .82. Additionally, there was a strong Pearson correlation ($r = .93$, $p = .000$) between the AVS and AVS-R. Based on a large sample of Asian American college students, the AVS-R demonstrated good internal consistency, with a Cronbach's alpha of .80 (Kim & Hong, 2004). In a group of Korean immigrants, the Korean translated AVS-R had a Cronbach's alpha of .84 (Lee et al., 2018).

Ethnic-Racial Identity

As in Wilson and Leaper's (2016) study, Cameron's (2004) social identity scales (centrality, in-group affect, in-group ties) and Egan and Perry's (2001) gender identity scales (felt typicality, felt conformity pressure) were combined to assess ethnic-racial identity (see Appendix C). Centrality captures the importance of a particular social identity to one's self-concept. In-group affect assesses how one feels about belonging to a group. In-group ties refer to the extent of connectedness to other group members. Felt typicality captures how representative

one feels oneself to be in reference to other group members. Felt conformity pressure is the degree to which one feels pressure to conform to social norms within one's group. Scores for each of the subscales are calculated by averaging the total number of items. A sample item of the felt typicality subscale includes *I have a lot in common with other people within my ethnic/racial group*. Items are rated on a 5-point Likert scale (1 = *Disagree strongly* to 5 = *Agree strongly*). In Wilson and Leaper's (2016) study, internal consistency was moderate for each domain: centrality (α = .79), in-group affect (α = .83), in-group ties (α = .79), felt typicality (α = .75), and felt conformity pressure (α = .84) based on a sample of 848 undergraduate participants. Reliability for the combined scales was satisfactory (r = .84; Wilson & Leaper, 2016).

Additional Ethnic Identity Items

Six questions about ethnic-racial identity importance and perceptions were developed to determine which identities were rated as important in which contexts (e.g., beauty standards; see Appendix C). Participants were asked to identify which identity was relevant in certain contexts and to rate the degree of importance of identity matching within that context (i.e., on a scale of 1 to 5, with 5 being the most important). For example, one sample item reads, *It is important to me that I look like my primary racial/ethnic identity*. Other questions also asked about whether other members from their primary ethnic/racial group also perceive them as being part of their group. Scores were calculated by creating a factor score based on results from an EFA.

Multiracial Identity Integration Scale (MIIS)

The Multiracial Identity Integration Scale assesses the level of multiracial identity integration and includes two subscales: racial conflict and racial distance (Cheng & Lee, 2009). A mean score is calculated for each subscale, with higher scores indicating higher racial distance or racial conflict, respectively. The eight items are scored on a 5-point Likert scale from 1 (*Completely disagree*) to 5 (*Completely agree*). Items were modified to include multiethnic identity integration; for example, *I feel like someone moving between different racial/ethnic identities*. In measuring reliability, Cronbach's alphas were calculated for racial conflict (α = .81) and racial distance (α = .65) in a community sample of 263 multiracial individuals (Jackson et al., 2012).

Additional Media Questions

Several questions regarding type and amount of media consumption were asked to assess exposure to Asian and American media (see Appendix C). Participants were asked to indicate

whether they consume television shows, internet sites, movies, music videos, or fashion, healthy, and beauty advertisements/commercials from Asian countries and/or the U.S. If participants endorsed consuming a media type, they indicated estimated length of time spent (i.e., hours per week) and country of origin for type of media.

Depression Anxiety Stress Scales (DASS)

This 42-item self-report questionnaire assesses three related negative emotional states: depression, anxiety, and tension/stress (Lovibond & Lovibond, 1995; see Appendix C). The depression subscale evaluates dysphoria, hopelessness, devaluation of life, self-deprecation, anhedonia, and inertia. The anxiety subscale measures autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. The stress subscale assesses difficulty relaxing, nervous arousal, being easily agitated, irritability, and impatience. Scores for each of the subscales are derived by summing the items in each scale. Using a 4-point Likert scale (ranging from 0 *Did not apply at all* to 3 *Applied to me very much, or most of the time*), individuals rate the extent to which they have experienced each state over the past week. A sample item from the stress subscale is, *I found myself getting upset by quite trivial things*. In a study with undergraduate students, the DASS Anxiety scale correlated with the Beck Anxiety Inventory ($r = .81$); the DASS depression scale correlated with the Beck Depression Inventory ($r = .74$; Lovibond & Lovibond, 1995). Within a clinical sample (N = 437), Brown et al. (1997) found good internal consistency and temporal stability for all three scales: depression ($\alpha = .96$), anxiety ($\alpha = .89$), and stress ($\alpha = .93$).

Procedures

University of Hawaiʻi at Mānoa

Participants were females who were at least 18 years old and fluent in English. Most participants for this portion of the study were recruited through the Department of Psychology subject pool at the University of Hawaiʻi at Mānoa. The online system, SONA (i.e., subject pool management software program), allows potential participants to read a summary and sign up to participate if they are interested. Students enrolled in introductory psychology courses had the option either to receive credit for research participation or to complete an alternative assignment provided by the instructor. Additionally, other students were recruited through descriptions of the study sent via email listservs or flyers posted throughout the UHM system. Once identified, potential participants were sent a link to the study and consented into the study. Although use of

college student participants limits generalizability, disturbed eating behavior and eating disorders occur most frequently among young adults.

Boston University

Participants were females who were at least 18 years old and fluent in English. Most participants were recruited through the Department of Psychology subject pool at Boston University, using the SONA system or through flyers and email listservs distributed through their psychology courses. As at the University of Hawai‘i, students enrolled in introductory psychology courses have the option either to receive credit for research participation or to complete an alternative assignment provided by the instructor. Once identified, potential participants were also sent a link to the study and consented into the study. Notably, difficulties in the IRB process at Boston University and their process for using the SONA system delayed recruitment of participants, which resulted in a smaller sample of participants than anticipated.

Philippines and South Korea

Participants were females who were at least 18 years old and proficient in English. Participants were recruited through study descriptions and flyers sent via email. Interested participants were provided with a link in the study description, which first provided informed consent prior to participating in the study. Despite various attempts to reach out to professors at different Philippine universities over several months, recruitment of participants was very difficult and unsuccessful. Because of the small number of participants from the Philippines, their results are considered preliminary and are excluded from comparative analyses.

General procedures

Interested participants signed up through SONA or via distributed study descriptions through flyers and email listservs and were given a link to an online survey with an IRB-approved consent form. First, participants reviewed and indicated consent, then filled out a series of computer-based, self-report measures (see Appendix C). Measures distributed to South Korean participants were translated by two psychology graduate students who are both native Korean and fluent English speakers (see Appendix D for translation process). Regardless of completion, participants who signed up through SONA were awarded research participation credit. Because of difficulties in previous studies, a $5 gift card was awarded to participants who were not receiving course credit. This subgroup of participants was asked to indicate their email address or phone number at the end of the survey and were given instructions via email or phone

message on how to obtain their gift card. This information was kept separate from their study data and stored in a password-protected file that was accessible only to the Principal Investigator (Dr. Kelly Vitousek) and Co-Investigator/Study Coordinator (Katrina Obleada).

Statistical Analyses

Missing Data. Missing data analysis was conducted using Little's MCAR test, which is commonly used for data that are missing completely at random. This can be determined by examining the p-value; if the p-value is not significant, then data can be assumed to be missing randomly (Little, 1988). After conducting Little's MCAR test, the p-values were not significant for all measures except the Weight Bias Internalization Scale-Revised. Upon review, this scale was found to include a repeated item and was missing another item through error during entry, so an adjusted score was calculated for this measure. Otherwise, missingness was determined not to impact the analysis, and data for these measures were considered to be at least missing at random.

Power. According to Cohen (1988, 1992), acceptable power is .80. In determining appropriate sample size, a subjects-to-variables ratio of 5:1 is considered a lower-bound guideline for confirmatory factor analysis; therefore, given that there are 27 variables in the AAM, a sufficient sample size would be 270 participants (Gaudagnoli & Velicer, 1988; Gorsuch, 1983; Streiner, 1994). As the Eating Disorder Examination Questionnaire includes 28 variables, however, a conservative target sample size of 400 participants was proposed to reach power of .80.

Aim 1. Refinement of AAM. Using MPlus Version 8.4, CFA analyses were estimated using Weighted Least Squares Estimating and items defined as categorical rather than continuous due to their ordinal nature. Standardized factor loadings, errors, and scores were reported. Multiple fit indices were examined to evaluate overall model fit. Comparative Fit Index (CFI) ≥ .95, Non-Normed Fit Index (TLI) ≥ .95, Standard Root Mean Square Residual (SRMR) ≤ .08, and Root Means Square Error of Approximation (RMSEA) ≤ .06 indicate good fit (Hu & Bentler, 1999). Model fit was evaluated based on theoretical reasoning and recommended fitness parameters. Additionally, with modifications to the hypothesized model, χ^2 tests were conducted to evaluate the possibility of a better fitting model, with large, significant χ^2 values evident of poor fit (Furr & Bacharach, 2014). It should be noted that some researchers omit this test for

model fit as the analysis is sensitive to model complexity and sample size, such that larger sample sizes have larger χ^2 values (Joreskög & Sörbom, 1993).

In particular, bifactor analyses were conducted to determine whether the AAM is a model with a general Asian beauty factor with specific subfactors (i.e., *Hair, Skin, and Face* and *Body and Looks*). These analyses would further determine whether total and subscale scores truly represented the targets of interest (Hammer & Toland, 2016). Each item was assigned to load on the general factor and their specific factor (Hammer & Toland, 2016). Following the suggestion of Hammer and Toland (2016), all factors were set orthogonal to each other and considered first-order factors. This model was then compared to the modified CFA to determine the better fitting model.

Aim 2. Validation of AAM. The next goal was to determine whether the proposed CFA model would be confirmed across sample subgroups. Examining measurement invariance was intended to determine whether (1) a construct is more or less multi-faceted in one culture compared to another; (2) item content and/or meaning overlap across cultures; (3) translation of a measure is appropriate; and (4) social desirability influences responses (Yap et al., 2015). For these analyses, the observed items were considered as continuous, as with five-point scale ordinal items acceptable solutions can be developed when the items do not exceed mild departure from normality (Boomsma, 1987). Given that all items were relatively normally distributed, the item scales were treated as continuous to simplify the measurement invariance comparisons with respect to examining the invariance of observed item intercepts (i.e., one per observed item versus four thresholds per item).

Examining measurement invariance across groups consists of conducting a series of successive analyses that evaluate the fit of each proposed model against a more restricted alternative model (i.e., configural/factor-form invariance, factor loading/metric invariance, intercept/scalar invariance, item residual invariance; Yap et al., 2015). Each successive model test examines the change in four fit indices. As suggested by Putnick and Bornstein (2016), the change in the following four fit indices should be reported: Chi-square statistic, Comparative Fit Index, Root-Mean-Square Error of Approximation, and Standardized Root-Mean-Square Residual. The $\Delta\chi^2$ analysis provides a statistical test evaluating the difference in two nested models based on the difference in degrees of freedom in the two models being compared (e.g., equal number of factors versus equal number of factors and item loadings on the factors), with p-

value of .05 or less indicating a decay in fit between the current model and the more restrictive alternative model. The criteria of -.01 for ΔCFI and .01 for ΔRMSEA were considered appropriate supportive evidence for scalar invariance tests (Putnick & Bornstein, 2016).

Measurement invariance was tested across two groups: Americans and South Koreans. Due to small sample sizes, these analyses could not be conducted using the three groups of European Americans, Asian Americans, and South Koreans; therefore, European and Asian Americans were grouped together for measurement invariance testing. Conceptually, it is rationalized that groups were compared based on country. Under the assumption that a particular scale measures the same construct across groups, measurement invariance would allow for meaningful comparisons of statistics (Yap et al., 2015). The multiple-group analyses were conducted using robust maximum likelihood (MLR) estimation.

Aim 3. Preliminary Exploration of Various Risk Factors. Using SPSS 28.0, one-way independent ANOVAs was performed to compare the effect of three demographic groups (European Americans, Asian Americans, and South Koreans) on AAM scores (see Table 10). Prior to running the one-way ANOVA, tests of assumptions of normality and homogeneity of variances were examined. Planned contrasts allowed for exact comparisons between each group, and effect sizes were also calculated to determine the magnitude of the effect. Pearson correlations and one-way independent ANOVAs were also used to explore relationships among common and unique risk factors for Asians (see Tables 7-10).

CHAPTER 3. RESULTS

Aim 1: Model Fit Analyses

Based on the CFA developed in Obleada's (2019) thesis, the fit for this proposed model (Model 1) of the AAM was poor (see Table 3 for comparisons). The primary problem concerned the poor correspondence of several observed items in specifying the proposed factors. Therefore, several CFA models were examined by deleting several items which did not adequately define the proposed factors based on examining model modification indices. After several modifications, an acceptable model was derived by simplifying the measure to include items that were conceptually the best representations from the *Hair, Skin, and Face* subscale. Then, factor scores were calculated and were correlated with each of the items in the *Body and Looks* subscale. Another series of CFA models were tested to derive the best-fitting model, Model 2 (i.e., χ^2 = 147.45, RMSEA = .07, CFI = .95, TLI = .93, SRMR = .05), which met criteria for adequate fit. This final model retained 7 out of 15 items from the original *Hair, Skin, and Face* subscale and 6 out of 12 items from the original *Body and Looks* subscale (see Table 4 and Figure 1).

Notably, fit indices for this new two-factor model were much better compared with the fit indices derived for the two-factor CFA described in Obleada's (2019) thesis (i.e., χ^2 = 5676.37, RMSEA = .19, CFI = .88, TLI = .87, SRMR = .03). A bifactor CFA was also tested to determine if the AAM were better conceptualized as a unidimensional model with two factors that load on a general factor; however, the bifactor model did not show improved fit over Model 2 (see Table 3). A unidimensional model was also tested to determine if all items on the AAM would be better conceptualized under one general factor; however, this model also did not show improved fit over Model 2 (see Table 3).

Reliability

Cronbach's alpha coefficients were acceptable for the *Hair, Skin, and Face* subscale (α = .80) and for the *Body and Looks* subscale (α = .63). Although the Cronbach's alpha coefficients were lower for the *Body and Looks* subscale, they were considered acceptable. The AAM means and standard deviations for the entire sample were as follows: *Hair, Skin, and Face* subscale (M = 19.56, SD = 6.45) and *Body and Looks* subscale (M = 15.46, SD = 4.82). Composite reliability has been cited as a better alternative to Cronbach's alpha and was calculated for the *Body and*

Looks subscale by estimating the coefficient omega (ω = .74), which improved the estimate for this subscale (Trizano-Hermosilla & Alvarado, 2006).

Aim 2: Measurement Invariance

Configural Invariance

After establishing a CFA model, the first step in measurement invariance was to establish configural invariance with the two demographic groups: Americans and South Koreans. Americans served as the reference group in all invariance models. Configural invariance tests the assumption that the same two-factor model in each group fits the data (i.e., freely estimated item loadings, item intercepts, item residuals, factor variances and correlation). Factor variances were fixed to one in each group and factor means were fixed to zero since item intercepts were freely estimated. A few modifications were incorporated in the final configural model tested to aid model convergence (i.e., the correlation between latent factors was fixed to .90 and correlations between five item residuals were freely estimated across the two groups). As shown in Table 5, the configural model provided a reasonable fit to the data. It is important that this initial model fits the data adequately, as it becomes the baseline against which subsequent invariance restrictions are compared.

Metric Invariance

Weak factorial invariance or metric invariance was examined by fixing the factor loadings to be the same across groups but allowing the intercepts of the observed observations to be freely estimated in each group. Factor variance was fixed to one in Americans but was freely estimated in South Koreans; the factor means were fixed at zero in both groups. All factor loadings were constrained to be equal across both groups, while all intercepts and residual variances were permitted to vary across groups. In this step, the correlation between factors did not need to be fixed for model convergence. The additional correlations between a few item variances were again estimated across the two groups. The metric variance fit the data, as well as the initial step in the configural model, with nonsignificant $\Delta\chi^2$, even though the CFI decreased (-.013) and RMSEA changed (-.001). Therefore, weak measurement was accepted (see Table 5).

Scalar Invariance

Scalar or strong factorial invariance was next examined, with factor loadings and item intercepts assumed to be equal across groups. Factor variances were again fixed to one, and one additional covariance between item 11 and item 10 was fixed to 0.25 to achieve model

convergence. Results showed that χ^2 coefficient rose from approximately 228 to 350; the CFI diminished from approximately .92 to .83. RMSEA was also inflated and significant ($p < .001$); scalar measurement invariance was not supported and suggested partial invariance (see Table 5). This indicates that at least one item intercept differs across the two groups and strict scalar invariance is not supported. One option then is to retest the model until a partially invariant model is achieved (Putnick & Bornstein, 2016). Based on the results of invariant items loadings suggested in the metric invariance model and by examining model modification indices, several item intercepts were freed one at a time while the factor loadings remained fixed until an acceptable partial-intercept-invariance model was derived. The covariance between items 11 and 10 was also estimated. Partial scalar invariance was accepted (see Table 5), which allowed for latent means to be compared (Putnick & Bornstein, 2016). Determining partial scalar invariance indicated the presence of response bias in at least one item and revealed at least two of the groups differ in the way they view beauty standards. Factor mean scores for South Koreans (*Hair, Skin, and Face* = 0.34, p = 0.005; *Body and Looks* = 0.37, p = .013) were larger than for Americans; unstandardized estimates were reported to demonstrate equal factor loadings and intercepts (see Table 6).

Residual invariance

Finally, partial residual invariance was examined, with factor variance fixed to one. Correlations between items continued to be estimated across the two groups. This model did not hold across groups (see Table 5). The $\Delta\chi^2$ was calculated as 37.57 for 13 degrees of freedom, which was larger than the acceptable $\Delta\chi^2$ of 22.36 for 13 degrees of freedom; other indices also did not meet acceptable model fit criteria.

Group Comparisons on the AAM

After establishing partial scalar invariance, one-way ANOVAs were conducted to compare AAM scores across groups. Due to the small sample size of Filipino nationals, factor scores were unable to be calculated for this group and were not included in this comparison. European and Asian American groups were based on primary ethnic identity identification. Because of small sample sizes for each specific Asian American group, all Asian American ethnicities (Filipino, Chinese, Japanese, Korean, Vietnamese) were analyzed as one group.

A one-way ANOVA test showed that there was a statistically significant difference in scores on the *Hair, Skin, and Face* subscale depending on ethnicity, $F(2, 388) = 7.28$, $p < .001$,

$\omega = .15$. There was a significant linear trend, $F(1, 388) = 8.03$, $p < .05$, $\omega = .18$, indicating that depending on the ethnic group, *Hair, Skin, and Face* score increased proportionately. Planned contrasts revealed that scores on the *Hair, Skin, and Face* were significantly lower for European Americans compared to South Koreans, $t(388) = -3.84$, $p < .001$, $r = .20$, but were not significantly different for Asian Americans compared to European Americans. In comparing Asian Americans and South Koreans, Asian Americans had significantly lower scores compared to South Koreans, $t(388) = -4.04$, $p < .001$, $r = 20$.

In comparing ethnic groups, one-way ANOVA demonstrated that there was a statistically significant difference in scores on the *Body and Looks* subscale, $F(2, 388) = 9.89$, $p < .001$, $\omega = .14$). There was a significant linear trend, $F(1, 388) = 7.87$, $p < .05$, $\omega = .17$, indicating that depending on the ethnic group, this score increased proportionately. Planned contrasts revealed that scores on *Body and Looks* were significantly lower for European Americans compared to South Koreans, $t(388) = -3.96$, $p < .001$, $r = .19$, but were not significantly different for Asian Americans compared to European Americans. Asian Americans had significantly lower scores than to South Koreans, $t(388) = -4.33$, $p < .001$, $r = 21$.

Because of Hawai‘i's unique multiethnic/multiracial demographic sample, the effect of multiethnicity/multiracial identity on AAM scores was of additional interest. Given the small samples of multiethnic/multiracial and biracial individuals, all individuals identifying with more than one racial/ethnic group were combined for analyses. One-way ANOVA test revealed there were no significant mean differences on AAM scores for those who identified with more than one ethnic/racial group compared to those who identified with one ethnic/racial group.

Aim 3: Exploratory Analyses of Various Factors

In developing a future model of beauty and disordered eating, the AAM was considered to predict scores on measures of disordered eating and psychological well-being. However, for a regression model, certain assumptions must be met, including additivity and linearity, independent errors, homoscedasticity, normally distributed errors, predictors uncorrelated with external variables, no perfect multicollinearity, and non-zero variance (Field, 2013). Because of the multicollinearity (i.e., high correlations) between both scales of the AAM, they could not be used in modeling its relationship to outcome variables. Therefore, preliminary analyses were conducted to examine relationships between the AAM scales and common eating disorder and unique risk factors to Asians (see Tables 7-9 for correlations).

SATAQ-4

Factor scores for the *Hair, Skin, and Face* subscale were significantly associated with thin-ideal internalization (r = .21, p < .001), family pressure (r = .10, p = .05), peer pressure (r = .30, p < .001), and media pressure (r = .22, p < .001). Similarly, factor scores for the *Body and Looks* subscale were significantly associated with thin-ideal internalization (r = .22, p < .001), family pressure (r = .12, p = .02), peer pressure (r = .31, p < .001), and media pressure (r = .23, p < .001). Notably, factor scores for the *Body and Looks* subscale were significantly associated only with muscular internalization (r = .10, p = .04).

Appearance-related pressures from family (r = .45, p < .001), peers (r = .41, p < .001), and the media (r = .45, p < .001) were also significantly related to body dissatisfaction. In comparing ethnic groups, a one-way ANOVA revealed that there was a statistically significant difference in responses for family pressure, F(2, 385) = 8.23, p < .001, ω = .19. There was a significant quadratic trend, F(1, 385) = 16.33, p < .001, ω = .06, indicating that depending on the ethnic group, this score increased in a curvilinear pattern. Planned contrasts showed that scores on family pressure were not significantly different for Asian Americans compared to South Koreans but were significantly increased for Asian Americans compared to European Americans, t(385) = 3.83, p < .001, r = .19. Asian Americans also had significantly higher scores than South Koreans, t(385) = 3.06, p = .002, r = 19.

For peer pressure, there were no significant differences in average scores when comparing ethnic groups. However, there was a statistically significant difference in responses for media pressure depending on ethnicity, F(2, 379) = 11.07, p < .001, ω = .22. There was a significant linear trend, F(1, 379) = 20.84, p < .001, ω = .22, indicating that depending on the ethnic group, perceived media pressure increased proportionately. Planned contrasts revealed that scores on media pressure were significantly higher for European Americans compared to South Koreans, t(379) = 4.37, p < .001, r = .22, and were significantly lower for Asian Americans compared to European Americans, t(379) = -2.14, p < .05, r = .11. In addition, Asian American scores were significantly compared to South Korean scores, t(379) = 2.24, p = .03, r = .11.

EDE-Q

For the *Hair, Skin, and Face* subscale, factor scores were significantly associated with Dietary Restraint (r = .30, $p <$ .001), Eating Concern (r = .30, $p <$ .001), Shape Concern (r = .37, $p <$ .001), and Weight Concerns (r = .34, $p <$ .001). For the *Body and Looks* subscale, factors scores were also significantly correlated with Dietary Restraint (r = .32, $p <$ .001), Eating Concern (r = .31, $p <$ .001), Shape Concern (r = .39, $p <$ .001), and Weight Concern (r = .36, p < .001). In addition, global scores on the EDE-Q were significantly associated with the *Hair, Skin and Face* (r = .36, $p <$ .001) and *Body and Looks* (r = .38, $p <$ .001) subscales. Regarding the relationship between disordered eating and ethnic-racial identity, there were no significant correlations between them. There were also no significant associations between Asian values and disordered eating.

A one-way ANOVA revealed that there was a statistically significant difference in Dietary Restraint scores depending on ethnicity, $F(2, 381) = 4.52$, $p < .05$, $\omega = .13$. There was a significant quadratic trend, $F(1, 381) = 5.34$, $p < .05$, $\omega = .03$), indicating that depending on the ethnic group, this score increased in a curvilinear pattern. Planned contrasts revealed that scores on Dietary Restraint were significantly lower for European Americans compared to South Koreans, $t(385) = -2.58$, $p < .05$, $r = .13$, but were not significantly different for Asian Americans compared to European Americans. Asian Americans also had significantly lower scores compared to South Koreans, $t(381) = -2.97$, $p = .003$, $r = .15$.

WBIS-M, BSQ-8C, and Price I'd Pay

For the WBIS-M, total scores were significantly correlated with *Hair, Skin, and Face* (r = .32, $p <$ .001) and *Body and Looks* (r = .34, $p <$ .001). Total scores on the BSQ-8C were also significantly associated with the *Hair, Skin, and Face* (r = .33, $p <$ .001) and *Body and Looks* (r = .34, $p <$ .001) subscales. Scores on this measure were significantly related to both the *Hair, Skin, and Face* (r = .44, $p <$ .001) and *Body and Looks* (r = .45, $p <$ .001) scales.

One-way ANOVA test revealed that there was a statistically significant difference for the Price I'd Pay scores depending on ethnicity, $F(2, 377) = 11.92$, $p < .001$, $\omega = .16$. There was a significant linear trend, $F(1, 377) = 4.16$, $p < .05$, $\omega = .09$, indicating that depending on the ethnic group, this score increased proportionately. Planned contrasts revealed that scores on the Price I'd Pay were significantly lower for European Americans compared to South Koreans, $t(377) = -4.22$, $p < .001$, $r = .21$, but were not significantly different for Asian Americans

compared to European Americans. Additionally, Asian Americans had significantly lower scores than South Koreans, $t(377) = -4.80$, $p < .001$, $r = .24$.

ACSS

Hair, Skin, and Face was significantly related to Intrapersonal ($r = .45$, $p < .001$), Social ($r = .50$, $p < .001$), and Consider (i.e., likelihood of having cosmetic surgery; $r = .50$, $p < .001$) attitudes towards cosmetic surgery. *Body and Looks* were likewise significantly related to Intrapersonal ($r = .45$, $p < .001$), Social ($r = .51$, $p < .001$), and Consider ($r = .47$, $p < .001$) attitudes towards cosmetic surgery. In examining relationships with other measures, anxiety was significantly associated with Social ($r = .20$, $p < .001$) and Consider ($r = .17$, $p < .001$) attitudes; while stress was significantly related to Intrapersonal ($r = .10$, $p = .05$), Social ($r = .18$, $p < .001$), and Consider ($r = .16$, $p < .001$) attitudes. Intrapersonal ($r = .21$, $p < .001$), Social ($r = .34$, $p < .001$), and Consider ($r = .31$, $p < .001$) attitudes were also significantly correlated with Dietary Restraint on the EDE-Q.

A one-way ANOVA revealed that there was a statistically significant difference on Social depending on ethnicity, $F(2, 380) = 13.43$, $p < .001$, $\omega = .25$. There was a significant linear trend, $F(1, 380) = 8.71$, $p < .05$, $\omega = .14$, indicating that depending on the ethnic group, scores on Social increased proportionately. Planned contrasts revealed that scores on Social were significantly lower for European Americans compared to South Koreans, $t(380) = -4.87$, $p < .001$, $r = .24$, but were not significantly different for Asian Americans compared to European Americans. In addition, Asian Americans had significantly lower scores compared to South Koreans, $t(380) = -4.86$, $p < .001$, $r = .24$.

Additionally, a one-way ANOVA revealed that there was a statistically significant difference on Consider depending on ethnicity, $F(2, 380) = 6.20$, $p < .05$, $\omega = .16$. There was a significant linear trend, $F(1, 380) = 3.93$, $p < .05$, $\omega = .09$, indicating that depending on the ethnic group, scores on Consider increased proportionately. Planned contrasts revealed that scores on Consider were significantly lower for European Americans compared to South Koreans, $t(380) = -3.31$, $p < .05$, $r = .17$, but were not significantly different for Asian Americans compared to European Americans. Asian American scores were significantly lower scores compared to South Korean scores, $t(380) = -3.31$, $p = .001$, $r = .17$.

DASS

For the DASS, only the depression scale was significantly correlated with *Hair, Skin, and Face* (r = .12, p = .02) and *Body and Looks* (r = .13, p = .01). Anxiety was not significantly related to either of the AAM subscales. Stress was significantly related only to the *Body and Looks* subscale (r = .10, p = .04). One-way ANOVA revealed no significant differences in DASS scores based on ethnicity.

AVS-R and Ethnic-Racial Identity

There were no significant correlations between scores on the AVS-R and either of the AAM subscales. Scores on the AVS-R were significantly correlated only with scores on the Price I'd Pay measure (r = .11, p = .03). For the ethnic identity measures, analyses were primarily run with participants from the University of Hawaiʻi at Mānoa because of the larger sample of diverse ethnic/racial individuals. There were no significant associations on scores of ethnic-racial identity, ethnic identity importance, and multiracial/ethnic identity integration with either of the AAM subscales.

CHAPTER 4. DISCUSSION

General Summary

The first aim of the current study was to refine the newly developed Aspects of Appearance Measure. To reduce the high correlations between items in Obleada's (2019) thesis, it was hypothesized that rewording items and changing the Likert scale would improve the measure; however, items still needed to be deleted to improve the model fit. Additionally, it was hypothesized that the AAM would be better conceptualized as a bifactor model - a model with a broad general Asian beauty factor with specific subfactors (i.e., Hair, Skin and Face and *Body and Looks*). This hypothesis was not supported. Through multiple confirmatory factor analyses, a revised two-factor model was derived as the best fitting model, which retained 7 out of 15 items from the original *Hair, Skin, and Face* subscale and 6 out of 12 items from the original *Body and Looks* subscale. Reliability analyses indicated acceptable internal consistency, and each of the items in both factors were highly correlated with one another.

By deriving this model, certain items were identified to be the best at capturing each of the subscales in the AAM. Improved fit after reduction of items also implied that many were greatly similar and redundant, which explained the elevated correlations between them. Both conceptual and theoretical relevance guided the revision of the final AAM measure with each of its subscales, such that specific items (e.g., *I would prefer double-eyelids rather than mono-eyelids* and *I aspire to be popular for my looks*) were still retained. In contrast, Obleada's (2019) study recommended removal of items that were highly relevant to Asian beauty, which may have been due to the unique Asian sample in Hawai'i. Furthermore, findings implied that identifying the best items for this measure resolved fitness indices rather than matching a previously hypothesized bifactor model.

The second aim of the study was to investigate aspects of validity for the AAM by comparing scores across two sample groups: South Koreans and Americans from the University of Hawai'i at Mānoa and Boston University. To make cross-cultural comparisons, conceptual and metric equivalence must be addressed (Heck, 1996). Conceptual equivalence ensures that a particular construct holds the same meaning across settings, while metric equivalence provides confidence that the same construct can be measured across settings (Heck, 1996). Once evidence for both has been established, comparisons of how values related to Asian beauty can be examined.

Results supported construct validity for the measure across both Americans and Koreans in that the model was stable with respect to number of factors, pattern of item loadings within each factor, and pattern of factor intercorrelations (Heck, 1996). These findings imply that there was conceptual equivalence across both countries. After establishing construct validity across both groups, structural parameters were examined for the impact of ethnicity on the *Hair, Skin, and Face* and *Body and Looks* subscales (Heck, 1996). Results showed differences in the structural parameters in the model for each group because the model could not be fitted to both groups simultaneously (Heck, 1996). Upon further investigation, scores on the *Hair, Skin, and Face* and *Body and Looks* constructs were higher in South Koreans, while the relationship between ethnicity and the two constructs was weaker for Americans.

Because of the lack of structural equivalence, factor means of the Aspects of Appearance measure were compared. Americans were lower in latent means for the beauty dimensions, which suggested that there are considerable differences in how they conceptualize beauty, despite indices that supported the construct validity of the model across countries. This finding supported the intent of the measure to capture beauty standards that are unique to Asians, thus implying that this measure has culture-specific beauty items (e.g., double- vs. mono-eyelids, popular for looks, dainty features).

Additionally, factor mean scores revealed that South Koreans tended to have higher scores on both subscales of the AAM compared to Americans, consonant with hypotheses. Although the effect size was small, results from this study supported previous findings about the importance of a light complexion, specific face shape, and face size as determinants of attractiveness in South Korea (Park & Suh, 2009; Wang, 2015). Because insufficient sample sizes made it necessary to combine Asian American subgroups for analyses, it was not possible to examine whether some subgroups (e.g., Korean Americans) are truly discrepant from South Koreans in their value of Asian beauty standards. Although it was not feasible to collect an adequate sample from the Philippines, further studies should also explore whether South Koreans are unique or common in their higher endorsement of Asian beauty values compared to other Asian cultures.

Contrary to hypotheses, the results also demonstrated that there were no significant differences between Asian and European Americans on either of the AAM subscales, replicating the findings of Obleada (2019). It is possible that European and Asian Americans do not differ

on values related to Asian beauty. At the same time, it is possible that varying levels of exposure to Asian media or varying beliefs about the importance of Asian identity may help to account for the lack of observed differences in endorsement of Asian beauty ideals. For example, individuals who may consume more Asian media or who highly value Asian beauty standards as part of their Asian identity may subscribe to more of the items included on the AAM. In future, it may be instructive to examine whether individuals who do subscribe strongly to Asian values may respond on the AAM. Additional research may also consider exploring how type of media consumption (e.g., social media, television/movies) may be associated with the AAM.

Interestingly, findings showed there were neither significant associations with the AAM nor differences on mean scores for any of the ethnic identity measures (e.g., Asian values, ethnic identity importance, ethnic-racial identity, multiracial identity integration), which was contrary to hypotheses. One possibility for these results is that these constructs are better understood as moderators or mediators. In previous research, Asian values and ethnic-racial identity have been found to moderate disordered eating and ethnic identification (Guidinger et al., 2020; Obleada & Bennett, 2020; Tsong & Smart, 2015). It is possible that ethnic-racial identity and Asian values may moderate or mediate the relationships between Asian beauty and ethnic/racial identification, which will be explored further in a planned program of research.

The third aim sought to preliminary investigate relationships among various risk factors with the AAM. As predicted, higher scores on both subscales of the AAM were positively associated with internalized weight bias, body dissatisfaction, disordered eating, sociocultural pressures, and depression. However, higher scores on anxiety were not significantly associated with increased scores on either of the AAM subscales. Since the DASS assesses general anxiety symptoms, it is possible that exploring other specific types of anxiety (e.g., social, appearance-related) may be significantly associated with the AAM and broaden our understanding of how Asian beauty ideals relate to body image concerns. Contrary to hypotheses, Asian values were also not significantly related to either of the AAM scales, disordered eating, or internalized weight bias.

Of particular interest, muscular internalization was positively related only with the *Body and Looks* and not the *Hair, Skin, and Face* subscale, suggesting that this construct is specifically linked to body concerns, whereas thin-idealization and pressures from family, peers, and the media are related to both body shape and facial items. These findings comport with results also

found in Obleada's (2019) thesis, which found certain facial items to be positively correlated with thin-ideal internalization. Aesthetically, rounder faces can be indicative of weight gain or having a higher weight and shape, whereas face shape is not as directly related to muscularity.

When drawing comparisons among the three ethnic groups (European Americans, Asian Americans, and South Koreans), South Koreans had the significantly highest scores on both subscales of the AAM, restricted eating, social motivations for and likelihood of having cosmetic surgery, and price they'd be willing to pay to meet appearance ideals. Effect sizes were small to medium, and findings supported the prediction that South Koreans would have higher scores on acceptance of cosmetic surgery. Results may be an indication of higher focus on appearance among South Koreans, especially with the high popularity of cosmetic surgeons in their country (Jacobs & Zheng, 2018); previous studies have also suggested the saliency and importance of appearance to Korean identity (Ko et al., 2019; Lee, 2012). Because disordered eating and attitudes for cosmetic surgery have been positively associated with depression, anxiety, and other severe pathological forms of eating, it may be beneficial to further explore how higher scores on these measures may affect these individuals psychologically.

Supporting hypotheses, body dissatisfaction was significantly associated with perceived pressures from family, peers, and the media. However, perceived family pressure was significantly higher for Asian Americans compared to European Americans and South Koreans, and there were no significant differences between South Koreans and European Americans. Findings were akin to previous research comparing European and Asian Americans in Hawaiʻi (Obleada, 2019). The fact that Asian Americans scored higher than South Koreans on family pressure is especially interesting and may possibly have to do with immigration and acculturation ideals (i.e., model minority stereotype), such that individuals from families who have immigrated to the United States may experience more family pressures to be "successful" in their new country. Subsequent research should investigate these issues further.

Notably, media pressure was highest for European Americans compared to Asian Americans and South Koreans. Further examination of how increased pressure from the media may impact Europeans compared to Asian Americans and South Koreans may be instructive. It is possible that other pressures, such as family pressure, may be more influential than media for Asian Americans and South Koreans. On the other hand, one study found that Asian Americans experienced more appearance comparisons and desires to look like media models from viewing

both Asian and American media, whereas European Americans were not significantly impacted by viewing both media types (Obleada et al., 2022). Taken together, these findings suggest that perceived pressure may be different but may be more detrimental for Asian Americans. Subsequent research will explore how type of media and hours of consumption may possibly play a role in differences on media pressure scores.

Surprisingly, Asian values and ethnic-racial identity were not associated with disordered eating as hypothesized. As previously mentioned with reference to the lack of significant associations with the AAM, Asian values and ethnic-racial identity may also be moderating variables in the interaction between Asian beauty and disordered eating. For example, one study found ethnic-racial identity centrality to significantly moderate the effect of primary ethnic identification on levels of eating concerns for individuals identifying as Asian (Obleada & Bennett, 2020). Future research should further examine how constructs of ethnic-racial identity (e.g., centrality, pressure, felt typicality) and Asian values may be considered to moderate or mediate relationships between Asian beauty and other psychological outcomes (e.g., disordered eating, body dissatisfaction, internalized weight bias).

Limitations

One major limitation to this study was the disproportionate sample sizes among Asian American ethnic groups, such that there were small sample sizes of specific Asian groups at both sites in the U.S.; accordingly, it was necessary to analyze all Asian ethnicities as one group. Therefore, care must be taken in generalizing these findings to all Asian American women. Another major limitation was difficulties in recruiting a large enough Philippine national sample despite multiple attempts over several months. Therefore, this sample was not included in group comparisons, and it is unclear whether national Filipinos would respond similarly or differently than the South Koreans in this study. It is possible that South Koreans are truly discrepant from Asian Americans and other Asian nationals in their responses on disordered eating, cosmetic surgery, and price they'd willingly pay to meet their appearance standards. Alternatively, it is conceivable that other Asian national groups may score comparably.

One other consequence of the small sample sizes for Asian Americans may be its effect on non-significant findings on Asian identity, multiracial identity integration, ethnic-racial identity, and Asian values. Surprisingly, there were also no significant differences on responses on these measures when comparing ethnic groups. Again, this may be due to the small sample

sizes of Asian Americans. Replicating this research with larger, more diverse Asian group samples may be beneficial in illuminating these issues further.

On the other hand, it is possible that these measures are not suitable for making meaningful comparisons with samples of Asian Americans from the continental U.S. and Hawai‘i, especially when combining these groups for analyses. It is important to note that these measures were not designed with the complexity of Hawai‘i’s unique Asian American population in mind, and there may be other variables (e.g., generation status, local Hawaiian culture, multiracial/ethnic identity) that may be influencing findings. Subsequent research is planned to examine these Asian American samples separately. Future research should also consider conducting measurement invariance with this measure to truly determine whether these comparisons can be made. Potentially, researchers may also want to focus more narrowly on the subset of questions they consider most relevant, instructive, and feasible to examine, given the multiplicity and complexity of variables that may influence these relationships.

Additionally, the fact that samples from the U.S. sites mostly consisted of college female students limits generalizability to other groups of females in the U.S. Strikingly, the South Korean sample was more diverse in age and more representative of a community sample; a U.S. community sample may be more meaningful in elucidating true differences and similarities in scores on the AAM and other measures. Finally, this study did not include individuals of other genders, which limits generalizability to female-identifying participants.

Another major limitation is that the AAM could not be examined as a predictor on outcomes of disordered eating, weight bias, ethnic-racial identity, body image, media influence, and psychological well-being (i.e., depression, anxiety, stress) as originally proposed. The *Hair, Skin, and Face* and *Body and Looks* subscales were correlated above 0.90 in the CFI models, which resulted in multicollinearity; accordingly, they could not be used in multiple regression analyses. Therefore, one-way ANOVAs and other preliminary analyses were used to examine relationships among the various outcomes.

Conclusions and Future Directions

Despite its limitations, the study contributes to the literature regarding specific Asian beauty ideals through refinement of a newly developed Asian beauty measure. Previous measures (e.g., Body Comparison Scale, Body Esteem Scale) have assessed pressures to conform to beauty ideals related to face, weight, and shape; however, Obleada’s (2019) AAM is believed

to be the first measure that incorporates other specific body items (e.g., legs, hair, looks, skin), face, weight, and shape items into one Asian beauty questionnaire. Model fit analyses supported the current two-factor model for the AAM and established 13 items with two subscales (*Hair, Skin, and Face* and *Body and Looks*).

Measurement invariance investigated construct validity through conceptual and metric equivalence across groups. Ascertaining construct validity for this measure allowed for psychometrically sound data to be collected about Asian beauty values and to investigate the extent to which construct is culturally common or culturally specific across contexts (Heck, 1996). Analyses suggested a suitable model with the two subscales and tested how it performed across groups. Cross-cultural comparisons of the latent constructs (*Hair, Skin, and Face* and *Body and Looks*) were found to differ across Americans and South Koreans, thus supporting an Asian-specific measure of beauty ideals.

Unsurprisingly, South Koreans had significantly higher scores compared to all subgroups. Notably, there were no significant differences on mean scores among the other subgroups (Asian Americans, European Americans). Since the Aspects of Appearance measure was developed based on beauty standards perpetuated in South Korea and other national Asian countries, this measure does indeed appear to capture some of those unique standards. Unfortunately, due to the multicollinearity of the AAM subscales, it could not be examined as a predictor of disordered eating or psychological well-being as originally hoped. Future studies should examine whether the AAM is an outcome for these variables.

In specifically examining other risk factors, results also demonstrated that South Koreans had the highest scores on measures of disordered eating, acceptance of cosmetic surgery, and price they'd willingly pay to achieve their beauty ideals. Results also replicated previous research that demonstrated that Asian Americans experience more familial pressures in achieving appearance ideals compared to European Americans and South Koreans. Finally, European Americans were shown to experience more media driven appearance-related pressures compared to Asian Americans and South Koreans. Future studies should further inspect these differences and how they may impact disordered eating and other psychological outcomes, such as depression and anxiety.

To conclude, this study refined the newly developed Aspects of Appearance Measure, supported construct validity through measurement invariance, made cross-cultural comparisons

for responses on the AAM, and explored the AAM's relationship to common eating disorder risk factors and concerns specific to Asians. Findings from this study illustrate how beauty ideals may play a role in the development and maintenance of disordered eating, body image issues, and other mental health concerns. The results may help to inform clinical practice by identifying an additional risk factor that can be targeted in treatment and as a focus for prevention. The findings may also contribute to our understanding of certain populations that may be vulnerable to these psychological concerns, such as those that highly value beauty ideals. Coupled with a strong desire to adhere to these standards by going to great lengths (e.g., restricted eating, cosmetic surgery), South Koreans may be especially vulnerable. Given study limitations, future cross-cultural research should further explore the relationship of Asian beauty with psychological outcomes (e.g., disordered eating, body image, depression, anxiety, stress).

APPENDIX A. TABLES AND FIGURES

Table 1.

Original AAM vs. Revised AAM

Hair, Skin, and Face	
It is important for me to have fair skin.	It is important for me to have fair skin.
Women with heart-shaped faces (wider at the top with a pointy chin) are especially attractive.	I would prefer to have a heart-shaped faces (wider at the top with a pointy chin).
A narrow, long, straight nose is preferable.	I prefer a narrow, long, straight nose.
I prefer upturned ("almond-shaped") eyes rather than downturned ("round") eyes.	I prefer upturned ("almond-shaped") eyes rather than downturned ("round") eyes.
Women with a pout (e.g., "cherry-shaped" mouth) are especially beautiful.	I desire to have a pout (e.g., "cherry-shaped" mouth).
I prefer double-eyelids rather than mono-eyelids.	I would prefer double-eyelids rather than mono-eyelids.
Women with long, sleek hair are especially beautiful.	I aspire to have long, sleek hair.
Having a small nose is preferable over having a broad, flat nose.	I prefer having a small nose over having a broad, flat nose.
I stay out of the sun as much as possible in order to maintain my natural skin tone (i.e., not due to health concerns).	I think it is desirable to stay out of the sun as much as possible in order to maintain my natural skin tone (i.e., not due to health concerns).
I prefer to have dainty features.	I prefer to have dainty features.
High cheek bones are especially beautiful.	I desire to have high cheek bones.
I desire to undergo cosmetic procedures to alter my face (e.g., rhinoplasty, facelift).*	
Women with translucent, light skin are more beautiful.*	
I prefer large, wide-set eyes (e.g., "Bambi" eyes).	I desire large, wide-set eyes (e.g., "Bambi" eyes).
I desire to have an oval-shaped face with a pointy chin (e.g., "melon seed" or "goose egg" face).	I desire to have an oval-shaped face with a pointy chin (e.g., "melon seed" or "goose egg" face).
Women with symmetrical faces are particularly beautiful.	I would prefer to have a symmetrical face.

Table 1. (Continued) Original AAM vs. Revised AAM

Original AAM	Revised AAM
I prefer to have curly hair over straight hair.	I prefer to have curly hair over straight hair.
I prefer to use cosmetic products to alter my appearance (e.g., whitening creams, jawline shapers).*	
Body and Look	
I aspire to have very thin legs (e.g., “chopstick” legs or legs with a “thigh gap”).	I aspire to have very thin legs (e.g., “chopstick” legs or legs with a “thigh gap”).
I like to wear lots of make-up in order to look attractive or sexy.	I like to wear lots of make-up in order to look attractive and sexy.
I aspire to be popular for my looks (e.g., “ulzzang”).	I aspire to be popular for my looks (e.g., “ulzzang”).
It is important for me to look sexy rather than pretty.*	
I desire to have curves.	I desire to have curves.
I desire to have larger breasts over smaller breasts.	I desire to have larger breasts over smaller breasts.
I aspire to look cute in a child-like way (e.g., “kawaii”).	I aspire to look cute in a child-like way (e.g., “kawaii”).
Being of mixed descent (“mestiza” or “hapa”) is particularly beautiful.	I would prefer to be of mixed descent ("mestiza" or "hapa").
I desire to have a slim body with curves ("S" figure).	I desire to have a slim body with curves ("S" figure).
To maintain a natural-looking appearance, I prefer not to wear a lot of make-up.	To maintain a natural-looking appearance, I prefer not to wear a lot of make-up.
I like looking "innocent and cute."	I like looking "innocent and cute."
I desire to undergo cosmetic procedures to alter my body (e.g., body contouring, breast enhancement).*	
I desire to have a fit and lean appearance.*	
Having a more androgynous (combined masculine and feminine) look is especially attractive.	I prefer to have a more androgynous (combined masculine and feminine) look.
I desire to have an elegant look.	I desire to have an elegant look.

Note. *Deleted items

Table 2.

Model 1. Confirmatory Factor Analysis Based on 2-Factor Model from Thesis

Item #		Estimate (S.E.)	*z*
	Hair, Skin, and Face		
AAM_1	It is important for me to have fair skin.	.952 (.006)	171.698
AAM_3	Women with heart-shaped faces (wider at the top with a pointy chin) are especially attractive.	.951 (.006)	169.981
AAM_4	A narrow, long, straight nose is preferable.	.951 (.006)	168.305
AAM_5	I prefer upturned (“almond-shaped”) eyes rather than downturned (“round”) eyes.	.954 (.005)	182.272
AAM_8	Women with a pout (e.g., “cherry-shaped” mouth) are especially beautiful.	.997 (.000)	2684.77
AAM_9	I prefer double-eyelids rather than mono-eyelids.	.996 (.001)	1966.419
AAM_11	Women with long, sleek hair are especially beautiful.	.996 (.000)	2319.634
AAM_13	Having a small nose is preferable over having a broad, flat nose.	.997 (.000)	2511.159
AAM_16	I stay out of the sun as much as possible in order to maintain my natural skin tone (i.e., not due to health concerns).	.996 (.000)	2183.954
AAM_17	I prefer to have dainty features.	.997 (.000)	2416.474
AAM_20	High cheek bones are especially beautiful.	.996 (.000)	2089.214
AAM_21	I desire to undergo cosmetic procedures to alter my face (e.g., rhinoplasty, facelift).	.997 (.000)	2775.039
AAM_22	Women with translucent, light skin are more beautiful.	.958 (.005)	197.307
AAM_24	I prefer large, wide-set eyes (e.g., “Bambi” eyes).	.957 (.005)	193.593
AAM_26	I desire to have an oval-shaped face with a pointy chin (e.g., “melon seed” or “goose egg” face).	.958 (.005)	196.474
AAM_30	Women with symmetrical faces are particularly beautiful.	.956 (.005)	190.912
AAM_32	I prefer to have curly hair over straight hair.	.956 (.005)	187.279
AAM_33	I prefer to use cosmetic products to alter my appearance (e.g., whitening creams, jawline shapers).	.957 (.005)	192.846
	Body and Looks		
AAM_2	I aspire to have very thin legs (e.g., “chopstick” legs or legs with a “thigh gap”).	.954 (.005)	180.082

AAM_6	I like to wear lots of make-up in order to look attractive or sexy.	.997 (.000)	3192.227

Table 2. (Continued) Model 1. Confirmatory Factor Analysis Based on 2-Factor Model from Thesis

AAM_7	I aspire to be popular for my looks (e.g., “ulzzang”).	.998 (.000)	3762.400
AAM_10	It is important for me to look sexy rather than pretty.	.999 (.000)	5676.827
AAM_12	I desire to have curves.	.997 (.000)	2732.395
AAM_14	I desire to have larger breasts over smaller breasts.	.997 (.000)	2758.952
AAM_15	I aspire to look cute in a child-like way (e.g., “kawaii”).	.997 (.000)	2925.688
AAM_18	Being of mixed descent (“mestiza” or “hapa”) is particularly beautiful.	.996 (.001)	1964.648
AAM_19	I desire to have a slim body with curves ("S" figure).	.997 (.000)	2719.230
AAM_23	To maintain a natural-looking appearance, I prefer not to wear a lot of make-up.	.957 (.005)	193.551
AAM_25	I like looking "innocent and cute."	.957 (.005)	183.043
AAM_27	I desire to undergo cosmetic procedures to alter my body (e.g., body contouring, breast enhancement).	.956 (.005)	192.766
AAM_28	I desire to have a fit and lean appearance.	.957 (.005)	194.112
AAM_29	Having a more androgynous (combined masculine and feminine) look is especially attractive.	.956 (.005)	187.183
AAM_31	I desire to have an elegant look.	.957 (.005)	191.951

Note. S.E. = Standard Error

Table 3.

Model Comparisons

Model	χ^2	RMSEA	CFI	TLI	SRMR
Original 2-Factor CFA	1800.52*	0.11	0.77	0.75	0.09
Revised 2-Factor CFA	203.11*	0.07	0.95	0.94	0.05
Unidimensional CFA	302.08*	0.1	0.92	0.9	0.06
Bifactor CFA	779.28*	0.18	0.74	0.62	0.09

Note. *$p < .001$

Table 4.

Model 2. Final 2-Factor CFA Model

Item #		Estimate (S.E.)	*z*
	Hair, Skin, and Face		
AAM_12	I desire to have a pout (e.g., "cherry-shaped" mouth).	0.78 (0.03)	28.98
AAM_13	I would prefer double-eyelids rather than mono-eyelids.	0.64 (0.04)	18.38
AAM_14	I aspire to have long, sleek hair.	0.63 (0.04)	18.00
AAM_16	I prefer having a small nose over having a broad, flat nose.	0.62 (0.04)	17.73
AAM_19	I think it is desirable to stay out of the sun as much as possible in order to maintain my natural skin tone (i.e., not due to health concerns).	0.62 (0.04)	14.31
AAM_20	I prefer to have dainty features.	0.76 (0.03)	26.22
AAM_9	I desire to have an oval-shaped face with a pointy chin (e.g., "melon seed" or "goose egg" face).	0.64 (0.04)	18.91
	Body and Looks		
AAM_2	I aspire to have very thin legs (e.g., “chopstick” legs or legs with a “thigh gap”).	0.46 (0.03)	15.44
AAM_10	I like to wear lots of make-up in order to look attractive and sexy.	0.55 (0.04)	13.03
AAM_11	I aspire to be popular for my looks (e.g., “ulzzang”).	0.62 (0.04)	16.76
AAM_17	I desire to have larger breasts over smaller breasts.	0.60 (0.04)	15.65
AAM_21	I would prefer to be of mixed descent ("mestiza" or "hapa").	0.29 (0.05)	5.85
AAM_22	I desire to have a slim body with curves (“S" figure).	0.63 (0.04)	17.13

Note. S.E. = Standard Error

Table 5.

Tests of Measurement Invariance across Groups

	Step 1	Step 2	Step 3	Step 3a	Step 4
χ^2 (*df*)	217.351 (125)	228.427 (134)	350.521 (145)	228.868 (137)	266.424 (150)
$\Delta\chi^2$		+11.076 ($p > .05$)	+122.094 ($p < .001$)	-121.653 ($p > .05$)	+37.556 ($p < .001$)
)CFI	.921	.919	.825	.922	.901
ΔCFI		-.002	-.094	.097	-.021
RMSEA (*p*)	.060 (.101)	.059 (.128)	.084 ($p < .001$)	.058 (.168)	.062 (.055)
ΔRMSEA		-.001	+.025	-.026	+.004
SRMR	.060	.077	.093	.075	.093
ΔSRMR		.017	.016	-.018	.018
Decision		Accept	Reject	Accept	Reject

Note. Step 1 = configural invariance; Step 2 = metric invariance; Step 3 = scalar invariance; Step 3a = partial scalar invariance; Step 4 = residual invariance

Table 6.

Unstandardized Estimates from Partial Scalar Invariance Model

Item #		Americans	South Koreans
	Hair, Skin, and Face		
AAM_12	I desire to have a pout (e.g., "cherry-shaped" mouth).	1.00	1.00
AAM_13	I would prefer double-eyelids rather than mono-eyelids.	.80	.80
AAM_14	I aspire to have long, sleek hair.	.81	.81
AAM_16	I prefer having a small nose over having a broad, flat nose.	.78	.78
AAM_19	I think it is desirable to stay out of the sun as much as possible in order to maintain my natural skin tone (i.e., not due to health concerns).	.45	.45
AAM_20	I prefer to have dainty features.	.91	.91
AAM_9	I desire to have an oval-shaped face with a pointy chin (e.g., "melon seed" or "goose egg" face).	.69	.69
	Body and Look		
AAM_2	I aspire to have very thin legs (e.g., “chopstick” legs or legs with a “thigh gap”).	.59	.59

Table 6. (Continued) Unstandardized Estimates from Partial Scalar Invariance Model

AAM_10	I like to wear lots of make-up in order to look attractive and sexy.	.49	.49
AAM_11	I aspire to be popular for my looks (e.g., “ulzzang”).	.70	.70
AAM_17	I desire to have larger breasts over smaller breasts.	.75	.75
AAM_21	I would prefer to be of mixed descent ("mestiza" or "hapa").	.33	.33
AAM_22	I desire to have a slim body with curves ("S" figure).	.77	.77

Table 7.

Pearson Correlations of Measures

	HSF	BL	SATAQ_IT	SATAQ_IM	SATAQ_F	SATAQ_P	SATAQ_M	EDEQ_R	EDEQ_E	EDEQ_S	EDEQ_W	EDEQ_G
HSF	-											
BL	.99**	-										
SATAQ_IT	.21**	.22**	-									
SATAQ_IM	.09	.10*	.39**	-								
SATAQ_F	.10*	.12*	.27**	.01	-							
SATAQ_P	.30**	.31*	.23**	.22**	.41**	-						
SATAQ_M	.22**	.23**	.43**	.17**	.28**	.26**	-					
EDE-Q_R	.30**	.32**	.31**	.13*	.29**	.39**	.22**	-				
EDE-Q_E	.30**	.32**	.24**	.17**	.34**	.44**	.20**	.70**	-			
EDE-Q_S	.37**	.39**	.43**	.13*	.39**	.41**	.42**	.67**	.66**	-		
EDE-Q_W	.34**	.36**	.44**	.15**	.38**	.38**	.39**	.66**	.65**	.89**	-	
EDE-Q_G	.36**	.38**	.44**	.16**	.40**	.42**	.38**	.77**	.76**	.92**	.98**	-

Note. HSF = AAM HSF; BL = AAM BL; SATAQ_IT = SATAQ Thin Internalization; SATAQ_IM = Muscle Internalization; SATAQ_F =SATAQ Family Pressure; SATAQ_P = Peer Pressure ;SATAQ_M = Media Pressure; EDEQ_R = EDE-Q Restraint; ; EDEQ_E = EDE-Q Eating Concerns; EDE-Q_S = EDE-Q Shape Concerns; EDE-Q_W = Weight Concerns; EDEQ_G = EDE-Q Global Score; * $p < .05$; ** $p < .001$

Table 8.

Pearson Correlations of Measures

	HSF	BL	SATAQ_ IT	SATAQ_ IM	SATAQ_ F	SATAQ_ P	SATAQ_ M	EDEQ _R	EDEQ _E	EDEQ _S	EDEQ _W	EDEQ _G
WBIS_T	.32**	.34**	.43**	.18**	.45**	.48**	.46**	.52**	.57**	.73**	.73**	.75**
BSQ_T	.33**	.34**	.47**	.12**	.45**	.41**	.45**	.62**	.64**	.82**	.80**	.83**
PIP	.44**	.45**	.19**	.15**	.20**	.37**	.04	.36**	.39**	.40**	.38**	.41**
ACS_I	.45**	.45**	.15**	.03	.13*	.18**	.15**	.21**	.22**	.25**	.25**	.26**
ACS_S	.46**	.51**	.14**	.13*	.11*	.39**	.05	.34**	.32**	.31**	.32**	.35**
ACS_C	.46**	.47**	.16**	.08	.20**	.23**	.10	.31**	.31**	.37**	.34**	.36**
DASS_D	.12*	.13*	.18**	.11**	.32**	.24**	.17**	.25**	.37**	.34**	.38**	.39**
DASS_A	.09	.09	.17**	.14**	.30**	.16**	.17**	.28**	.38**	.30**	.36**	.37**
DASS_S	.09	.10*	.16**	.16**	.27**	.19**	.16**	.27**	.35**	.33**	.40**	.40**
AVS_T	.08	.08	.07	.10	.10	.09	-.05	.06	.48	.01	.01	.02

Note. HSF = AAM HSF; BL = AAM BL; SATAQ_IT = SATAQ Thin Internalization; SATAQ_IM = Muscle Internalization; SATAQ_F =SATAQ Family Pressure; SATAQ_P = Peer Pressure ;SATAQ_M = Media Pressure; EDEQ_R = EDE-Q Restraint; ; EDEQ_E = EDE-Q Eating Concerns; EDEQ_S = EDE-Q Shape Concerns; EDEQ_W = Weight Concerns; EDEQ_G = EDE-Q Global Score; WBIS_T = Weight Bias internalization Scale Total Score; BSQ_T = Body Shape Questionnaire Total Score; PIP = Price I'd Pay; ACS_I = Acceptance of Cosmetic Surgery Intrapersonal; ACS_S = Acceptance of Cosmetic Surgery Social; ACS_C = Acceptance of Cosmetic Surgery Consider; DASS_D = DASS Depression; DASS_A = DASS Anxiety; DASS_S = DASS Stress; AVS_T = Asian Values Scale Revised Total Score; * $p < .05$; ** $p < .001$

Table 9.

Pearson Correlations of Measures

	WBIS_T	BSQ_T	PIP	ACS_I	ACS_S	ACS_C	DASS_D	DASS_A	DASS_S	AVS_T
WBIS_T	-									
BSQ_T	.76**	-								
PIP	.35**	.34**	-							
ACS_I	27**	.27**	.31**	-						
ACS_S	.28**	.28**	.46**	.54**	-					
ACS_C	.33**	.33**	.39**	.65**	.55**	-				
DASS_D	.41**	.34**	.22**	.10	.19**	.18**	-			
DASS_A	.29**	.29**	.20**	.10*	.18**	.16**	.29**	-		
DASS_S	.33**	.33**	.18**	.07	.20**	.17**	.33**	.72**	-	
AVS_T	.01	.01	.11*	-.03	.08	.06	.01	-.07	-.01	-

Note. WBIS_T = Weight Bias internalization Scale Total Score; BSQ_T = Body Shape Questionnaire Total Score; PIP = Price I'd Pay; ACS_I = Acceptance of Cosmetic Surgery Intrapersonal; ACS_S = Acceptance of Cosmetic Surgery Social; ACS_C = Acceptance of Cosmetic Surgery Consider; DASS_D = DASS Depression; DASS_A = DASS Anxiety; DASS_S = DASS Stress; AVS_T = Asian Values Scale Revised Total Score; * $p < .05$; ** $p < .001$

Table 10.

Means, Standard Deviations, One-Way ANOVAS

Measure	European Americans		Asian Americans		South Koreans		ANOVA		
	M	*SD*	*M*	*SD*	*M*	*SD*	*F* ratio	*df*	ω^2
HSF	0.09	0.92	-0.11	0.94	0.35	0.89	7.28**	2, 388	.02
BL	0.11	0.89	-0.12	0.96	0.20	0.93	9.89**	2, 388	.02
SATAQ_F	9.65	5.05	12.64	5.09	10.67	4.65	8.23**	2, 385	.04
SATAQ_M	16.61	4.79	15.02	4.89	13.73	4.33	11.07**	2, 379	.05
EDE-Q_R	3.01	1.85	2.65	1.51	3.27	1.64	4.52*	2, 381	.02
PIP	-0.10	0.10	-0.40	-.91	-.19	1.00	11.92**	2, 377	.03
ACS_S	3.45	1.68	3.14	1.50	4.13	1.66	13.43**	2, 380	.06
ACS_C	4.43	1.14	4.28	1.09	4.57	1.09	6.20*	2, 380	.03

Note. HSF = AAM HSF; BL = AAM BL; SATAQ_F =SATAQ Family Pressure; SATAQ_M = Media Pressure; EDE-Q_R = EDE-Q Restraint; PIP = Price I'd Pay; ACS_S = Acceptance of Cosmetic Surgery Social; ACS_C = Acceptance of Cosmetic Surgery Consider; * $p < .05$; ** $p < .001$

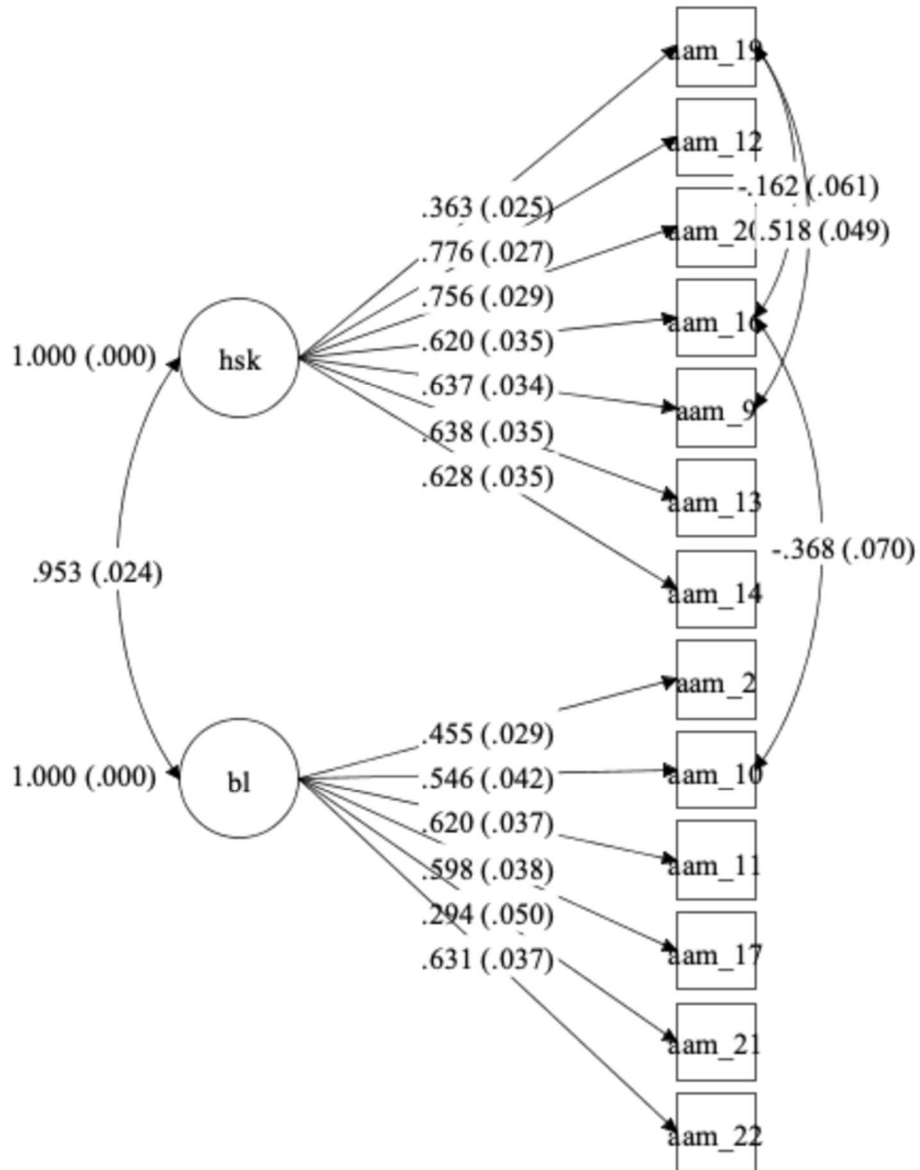
Table 11.

Demographic Breakdown

	UHM (n = 147)	BU (n = 97)	South Korea (n = 196)	Philippines (n = 15)
Age (M, SD)	21.01 (5.28)	19.26 (2.76)	29.75 (6.99)	25.07 (6.70)
Primary Ethnicity/Race (%)				
American Indian or Alaska Native	-	-	-	-
Asian Indian	0.70%	1.00%	-	-
Black or African American	0.70%	9.30%	-	-
Chinese	9.50%	24.70%	-	-
Filipino	15.00%	-	-	80%
Japanese	8.80%	2.10%	-	-
Okinawan	0.70%	0%	-	-
Korean	5.40%	4.10%	82.10%	-
Native Hawaiian	6.80%	0%	-	-
Other Pacific Islander	2.70%	1%	-	-
Vietnamese	1.40%	-	-	-
White	26.50%	32%	-	-
Hispanic/Latina	6.80%	6.20%	-	-
Spanish	-	-	-	-
Other	1.40%	4.10%	-	-
Biracial	2.70%	2.40%	0.50%	-
Multiethnic	5.40%	-	-	6.70%
Primary Language				
English	87.10%	62.90%	-	40%
Korean	0.01%	-	100%	-
U.S. Generation Status				
Indigenous	-	-	-	-
1st generation	8.20%	2.10%	-	-
2nd generation	57.10%	33.00%	-	-
3rd generation	1.40%	3.10%	-	-
Hawaiʻi Generation Status				
Indigenous	4.10%	-	-	-
1st generation	17.00%	-	-	-
2nd generation	21.10%	-	-	-
3rd generation	1.40%	-	-	-

Figure 1.

Final CFA 2-Factor Model with Standardized Scores



APPENDIX B. SUPPLEMENTARY TABLES AND FIGURES

Table 12.

Exploratory Factor Analysis Derived from Pilot Study (N = 94)

Item #		Factor 1	Factor 2
	Factor 1: Body and Mature Look		
AAM_2	I aspire to have very thin legs (e.g., "chopstick" legs or legs with a "thigh gap").	0.466	0.057
AAM_6	I like to wear lots of make-up in order to look attractive or sexy.	0.405	0.131
AAM_7	I aspire to be popular for my looks (e.g., "ulzzang").	0.561	-0.006
AAM_10	It is important for me to look sexy rather than pretty.	0.545	-0.144
AAM_12	I desire to have curves.	0.763	-0.090
AAM_14	I desire to have larger breasts over smaller breasts.	0.630	0.012
AAM_19	I desire to have a slim body with curves ("S" figure).	0.757	-0.014
AAM_28	I desire to have a fit and lean appearance.	0.552	-0.098
AAM_31	I desire to have an elegant look.	0.474	0.208
	Factor 2: Face, Skin, Hair, and Innocent Look		
AAM_1	It is important for me to have fair skin.	0.043	0.459
AAM_3	Women with heart-shaped faces (wider at the top with a pointy chin) are especially attractive.	-0.031	0.526
AAM_5	I prefer upturned ("almond-shaped") eyes rather than downturned ("round") eyes.	0.023	0.412
AAM_13	Having a small nose is preferable over having a broad, flat nose.	0.252	0.507
AAM_15	I aspire to look cute in a child-like way (e.g., "kawaii").	0.031	0.650
AAM_16	I stay out of the sun as much as possible in order to maintain my natural skin tone (i.e., not due to health concerns).	-0.209	0.644
AAM_17	I prefer to have dainty features.	0.137	0.590
AAM_22	Women with translucent, light skin are more beautiful.	0.016	0.619
AAM_23	I like looking "innocent and cute."	0.132	0.651
AAM_26	I desire to have an oval-shaped face with a pointy chin (e.g., "melon seed" or "goose egg" face).	-0.053	0.516
	Cronbach's alpha	0.819	0.823

Table 13.

Model 2. Confirmatory Factor Analysis with Items Deleted Based on Modification Indices

Item #		Estimate (S.E.)	z
	Hair, Skin, and Face		
AAM_1	It is important for me to have fair skin.	.952 (.006)	171.934
AAM_3	Women with heart-shaped faces (wider at the top with a pointy chin) are especially attractive.	.951 (.006)	170.162
AAM_4	A narrow, long, straight nose is preferable.	.951 (.006)	169.043
AAM_5	I prefer upturned ("almond-shaped") eyes rather than downturned ("round") eyes.	.955 (.005)	181.441
AAM_9	I prefer double-eyelids rather than mono-eyelids.	.995 (.001)	1712.495
AAM_11	Women with long, sleek hair are especially beautiful.	.996 (.000)	2123.841
AAM_22	Women with translucent, light skin are more beautiful.	.960 (.005)	205.197
AAM_23	I like looking "innocent and cute."	.959 (.005)	202.775
AAM_24	I prefer large, wide-set eyes (e.g., "Bambi" eyes).	.959 (.005)	202.632
AAM_30	Women with symmetrical faces are particularly beautiful.	.959 (.005)	200.428
	Body and Look		
AAM_2	I aspire to have very thin legs (e.g., "chopstick" legs or legs with a "thigh gap").	.954 (.005)	180.453
AAM_6	I like to wear lots of make-up in order to look attractive or sexy.	.997 (.000)	2803.318
AAM_7	I aspire to be popular for my looks (e.g., "ulzzang").	.998 (.000)	3043.254
AAM_12	I desire to have curves.	.997 (.000)	2420.302
AAM_18	Being of mixed descent ("mestiza" or "hapa") is particularly beautiful.	.996 (.001)	1929.548
AAM_19	I desire to have a slim body with curves ("S" figure).	.997 (.000)	2469.917
AAM_27	I desire to undergo cosmetic procedures to alter my body (e.g., body contouring, breast enhancement).	.959 (.005)	202.807
AAM_29	Having a more androgynous (combined masculine and feminine) look is especially attractive.	.958 (.005)	196.473
AAM_31	I desire to have an elegant look.	.959 (.005)	202.867
AAM_25	To maintain a natural-looking appearance, I prefer not to wear a lot of make-up.	.957 (.005)	191.651

Note. S.E. = Standard Error

Table 14.

Model 3. Exploratory Factor Analysis Derived from Subsequent Larger Study (N = 282)

Item #1		Factor 1	Factor 2
	Factor 1		
AAM_1	It is important for me to have fair skin.	0.967	-0.016
AAM_2	I aspire to have very thin legs (e.g., “chopstick” legs or legs with a “thigh gap”).	0.977	-0.024
AAM_3	Women with heart-shaped faces (wider at the top with a pointy chin) are especially attractive.	0.967	-0.016
AAM_4	A narrow, long, straight nose is preferable.	0.978	-0.028
AAM_5	I prefer upturned (“almond-shaped”) eyes rather than downturned (“round”) eyes.	0.976	-0.022
AAM_6	I like to wear lots of make-up in order to look attractive or sexy.	0.964	0.035
AAM_7	I aspire to be popular for my looks (e.g., “ulzzang”).	1.002	-0.005
AAM_8	Women with a pout (e.g., “cherry-shaped” mouth) are especially beautiful.	1.002	-0.005
AAM_9	I prefer double-eyelids rather than mono-eyelids.	1.004	-0.009
AAM_10	It is important for me to look sexy rather than pretty.	1.002	-0.004
AAM_11	Women with long, sleek hair are especially beautiful.	0.964	0.034
AAM_12	I desire to have curves.	0.980	0.017
AAM_13	Having a small nose is preferable over having a broad, flat nose.	0.972	0.026
AAM_14	I desire to have larger breasts over smaller breasts.	1.018	-0.022
AAM_15	I aspire to look cute in a child-like way (e.g., “kawaii”).	0.989	0.009
AAM_16	I stay out of the sun as much as possible in order to maintain my natural skin tone (i.e., not due to health concerns).	0.989	0.008
AAM_17	I prefer to have dainty features.	0.962	0.036
AAM_18	Being of mixed descent (“mestiza” or “hapa”) is particularly beautiful.	0.972	0.024
AAM_19	I desire to have a slim body with curves ("S" figure).	0.978	0.020
AAM_20	High cheek bones are especially beautiful.	1.005	-0.009
AAM_21	I desire to undergo cosmetic procedures to alter my face (e.g., rhinoplasty, facelift).	0.981	0.017
	Factor 2		
AAM_22	Women with translucent, light skin are more beautiful.	-0.002	1.000
AAM_23	I like looking "innocent and cute."	0.003	0.994
AAM_24	I prefer large, wide-set eyes (e.g., “Bambi” eyes).	0.003	0.994
AAM_25	To maintain a natural-looking appearance, I prefer not to wear a lot of make-up.	-0.007	1.002

Table 14. (Continued) Model 3. Exploratory Factor Analysis

AAM_26	I desire to have an oval-shaped face with a pointy chin (e.g., "melon seed" or "goose egg" face).	0.003	0.995
AAM_27	I desire to undergo cosmetic procedures to alter my body (e.g., body contouring, breast enhancement).	0.010	0.987
AAM_28	I desire to have a fit and lean appearance.	0.000	0.998
AAM_29	Having a more androgynous (combined masculine and feminine) look is especially attractive.	-0.007	1.004
AAM_30	Women with symmetrical faces are particularly beautiful.	0.005	0.991
AAM_31	I desire to have an elegant look.	0.001	0.996
AAM_32	I prefer to have curly hair over straight hair.	-0.001	0.997
AAM_33	I prefer to use cosmetic products to alter my appearance (e.g., whitening creams, jawline shapers).	-0.002	0.999
	Cronbach's alpha	0.913	0.826

Table 15.

CFA Model Comparisons

Model	χ^2	**RMSEA**	**CFI**	**TLI**	**SRMR**
Model 1	5676.37*	.19	.88	.87	.03
Model 2	3501.58*	.27	.87	.84	.03

Note. *p <. 001

Table 16.

Correlations between AAM and Muscular/Athletic and Thin/Low Body Fat Internalization Subscales of the SATAQ-4

	SATAQ_1	SATAQ_2	SATAQ_3	SATAQ_4	SATAQ_5	SATAQ_6	SATAQ_7	SATAQ_8	SATAQ_9	SATAQ_10
AAM_1	-.092	-.085	.109	.072	.076	-.017	-.084	-.046	.091	.085
AAM_2	-.019	-.006	.419**	.092	.366**	.033	.054	.162**	.287**	-.06
AAM_3	-.054	.019	.188**	.090	.174**	-.046	-.01	.126*	.164**	-.037
AAM_4	-.006	-.014	.220**	.116	.178**	-.065	-.037	.218**	.172**	-.129*
AAM_5	.036	.054	.098	.095	.160**	-.001	.044	.160**	.132**	-.038
AAM_6	-.004	.038	.144**	.113	.226**	.01	.028	.222**	.199**	-.049
AAM_7	.06	.053	.264**	.180**	.304**	.017	.122**	.096	227**	-.045
AAM_8	.029	-.008	.134*	.07*	.232**	-.055	.008	.096	.119*	-.097
AAM_9	-.06	-.116	.121*	.007	.129*	-.134*	-.076	.105	.127*	-.160**
AAM_10	.01	.052	.135*	.119*	.244**	.013	.109	.116	.135*	-.04
AAM_11	.077	.091	.316**	.193**	.243**	.012	.056	.174**	.255**	.004
AAM_12	.071	.068	.195**	.205**	.273**	-.02	.096	.154**	.226**	-.023
AAM_13	.024	-.034	.254**	.142**	.225**	-.087	.014	.211**	.197**	-.142*

Table 16. (Continued) Correlations between AAM and Muscular/Athletic and Thin/Low Body Fat Internalization Subscales of the SATAQ-4

AAM_14	.038	.006	.169**	.202**	.206**	-.075	.045	.177**	.196**	-.135*
AAM_15	-.029	-.016	.220**	.117	.226**	.021	.078	.073	.155**	-.027
AAM_16	-.018	-.075	.031	.044	.067	-.034	-.004	.064	.068	-.068
AAM_17	-.041	-.045	.280**	.087	.269**	-.056	-.021	.185**	.193**	-.11
AAM_18	.093	.106	.095	.025	.11	-.024	.082	.214**	.149*	.006
AAM_19	.11	.093	.397**	.194**	.423**	.05	.189**	.329**	.343**	.033
AAM_20	.088	.130*	.264**	.117	.274**	.112	.140*	.276**	.261**	.07
AAM_21	-.075	-.008	.094	.051	.204**	-.045	-.022	.108	.161**	-.083
AAM_22	-.027	-.004	.183**	.098	.137*	.052	.022	.085	.182**	0
AAM_25	-.002	-.032	.253**	.182**	.243**	-.02	.07	.165**	.290**	-.033
AAM_24	-.036	.006	.252**	.121**	.232**	-.053	-.003	.148*	.173*	-.056
AAM_23	.252**	.170**	.094	.157**	-.022	.134*	.176**	.197**	.114	.079
AAM_26	-.069	-.044	.063	-.003	.182**	-.02	.03	.097	.166**	-.007
AAM_27	-.088	-.024	.08	.036	.180**	-.06	-.017	.062	.131*	-.099
AAM_28	.388**	.281**	.275**	.229**	.267**	.182**	.336**	.507**	.350**	.171**
AAM_29	.182**	.252**	.129*	.109	.163**	.081	.186**	.203**	.180**	.127*
AAM_30	.045	.056	.179**	.085	.164**	.002	.048	.190**	.118*	0

Table 16. (Continued) Correlations between AAM and Muscular/Athletic and Thin/Low Body Fat Internalization Subscales of the SATAQ-4

AAM_31	.014	.027	.292**	.143*	.233**	.022	.031	.212**	.210**	-.018
AAM_32	.111	.167**	.086	.038	.150*	.094	.159**	.118*	.071	.138*
AAM_33	-.057	.003	.223**	.085	.253**	.099	.01	.123*	.164**	.031

Note. AAM = Aspects of Appearance Measure; SATAQ = Sociocultural Attitudes Towards Appearance Questionnaire; **Correlation is significant at the .01 level (2-tailed); *Correlation is significant at the 0.05 level (2-tailed)

Table 17.

Correlations between AAM and Family Pressure and Media Pressure subscales of the SATAQ-4

	SATAQ_ 11	SATAQ_ 12	SATAQ_ 13	SATAQ_ 14	SATAQ_ 15	SATAQ_ 16	SATAQ_ 17	SATAQ_ 18	SATAQ_ 19	SATAQ_ 20	SATAQ_ 21	SATAQ_ 22
AAM_1	0.103	0.081	0.089	0.112	-0.019	0.006	-0.005	0.009	0.103	0.081	0.089	0.112
AAM_2	.177**	.199**	.153*	.137*	.208**	.271**	.199**	.228**	.177**	.199**	.153*	.137*
AAM_3	0.1	.122*	0.064	0.072	.161**	.176**	.162**	0.115	0.1	.122*	0.064	0.072
AAM_4	-0.02	0.042	-0.049	-0.053	.170**	.127*	.156**	0.11	-0.02	0.042	-0.049	-0.053
AAM_5	0.082	.125*	0.053	0.037	0.117	0.074	0.115	0.084	0.082	.125*	0.053	0.037
AAM_6	.166**	.164**	.222**	0.109	.239**	.208**	.250**	.213**	.166**	.164**	.222**	0.109
AAM_7	.165**	.157**	.151*	0.071	.220**	.180**	.188**	.167**	.165**	.157**	.151*	0.071

Table 17. (Continued) Correlations between AAM and Family Pressure and Media Pressure subscales of the SATAQ-4

AAM_8	.169**	.186**	.190**	0.094	.339**	.278**	.320**	.279**	.169**	.186**	.190**	0.094
AAM_9	0.09	0.117	0.063	0.046	0.112	0.098	0.103	0.089	0.09	0.117	0.063	0.046
AAM_10	.273**	.244**	.247**	.137*	.251**	.243**	.229**	.220**	.273**	.244**	.247**	.137*
AAM_11	.200**	.211**	.170**	.155**	.189**	.195**	.207**	.186**	.200**	.211**	.170**	.155**
AAM_12	.182**	.163**	.142*	0.027	.313**	.255**	.291**	.249**	.182**	.163**	.142*	0.027
AAM_13	0.05	0.081	-0.008	0.022	.167**	.121*	.159**	.138*	0.05	0.081	-0.008	0.022
AAM_14	0.109	0.102	0.066	0.031	.201**	.160**	.180**	.145*	0.109	0.102	0.066	0.031
AAM_15	.183**	.143*	.186**	0.108	0.066	.123*	0.096	.134*	.183**	.143*	.186**	0.108
AAM_16	.126*	0.072	0.102	0.06	0.03	0.022	0.043	0.026	.126*	0.072	0.102	0.06
AAM_17	.192**	.191**	.154**	.191**	.267**	.246**	.255**	.264**	.192**	.191**	.154**	.191**
AAM_18	.266**	.265**	.233**	.251**	.248**	.198**	.241**	.210**	.266**	.265**	.233**	.251**
AAM_19	.181**	.177**	.183**	.147*	.359**	.340**	.316**	.299**	.181**	.177**	.183**	.147*
AAM_20	0.115	.165**	0.094	.135*	.228**	.220**	.250**	.224**	0.115	.165**	0.094	.135*
AAM_21	.120*	.139*	.122*	0.006	.153*	.137*	.193**	.163**	.120*	.139*	.122*	0.006
AAM_22	.235**	.214**	.193**	.135*	.202**	.199**	.177**	.195**	.235**	.214**	.193**	.135*

Table 17. (Continued) Correlations between AAM and Family Pressure and Media Pressure subscales of the SATAQ-4

AAM_25	.234**	.224**	.214**	.217**	.147*	.181**	.155**	.172**	.234**	.224**	.214**	.217**
AAM_24	.294**	.283**	.240**	.195**	.176**	.154**	.178**	.169**	.294**	.283**	.240**	.195**
AAM_23	0.024	0.027	-0.023	0.022	0.075	0.109	0.082	0.079	0.024	0.027	-0.023	0.022
AAM_26	.161**	.172**	.156**	0.065	.121*	0.082	.121*	0.091	.161**	.172**	.156**	0.065
AAM_27	.249**	.247**	.274**	.194**	.207**	.241**	.266**	.232**	.249**	.247**	.274**	.194**
AAM_28	.147*	.136*	0.094	.122*	.221**	.238**	.229**	.222**	.147*	.136*	0.094	.122*
AAM_29	.201**	.195**	.159**	.170**	0.117	.121*	0.075	0.106	.201**	.195**	.159**	.170**
AAM_30	0.097	.165**	0.058	0.055	.144*	.125*	.122*	0.098	0.097	.165**	0.058	0.055
AAM_31	.179**	.169**	.124*	.165**	.173**	.150*	.165**	.119*	.179**	.169**	.124*	.165**
AAM_32	.120*	.136*	.126*	0.105	.186**	.186**	.169**	.193**	.120*	.136*	.126*	0.105
AAM_33	.120*	.148*	.143*	0.101	.129*	.124*	.145*	.148*	.120*	.148*	.143*	0.101

Note. AAM = Aspects of Appearance Measure; SATAQ = Sociocultural Attitudes Towards Appearance Questionnaire; **Correlation is significant at the .01 level (2-tailed); *Correlation is significant at the 0.05 level (2-tailed)

Table 18.

Correlations between AAM and Body Comparison Scale-Asian subscale

	BCS_2	BCS_3	BCS_4	BCS_5	BCS_6	BCS_7	BCS_8	BCS_9	BCS_10	BCS_11	BCS_12	BCS_13	BCS_14
AAM_1	.386**	.142*	.318**	.245**	.272**	.304**	.386**	.355**	.333**	.329**	.334**	.315**	.428**
AAM_2	.187**	0.008	0.117	0.088	0.107	.152*	.173**	.125*	.135*	0.089	.136*	0.116	.220**
AAM_3	.323**	.126*	.325**	.248**	.304**	.275**	.339**	.388**	.275**	.296**	.297**	.360**	.473**
AAM_4	.287**	.121*	.313**	.175**	.260**	.259**	.390**	.347**	.342**	.308**	.286**	.301**	.392**

Table 18. (Continued) Correlations between AAM and Body Comparison Scale-Asian subscale

AAM_5	.280**	.146*	.337**	.212**	.284**	.264**	.328**	.325**	.301**	.310**	.218**	.242**	.339**
AAM_6	.209**	.148*	.260**	.206**	.243**	.246**	.229**	.207**	.186**	.235**	.177**	.136*	.200**
AAM_7	.223**	.166**	.325**	.188**	.265**	.247**	.287**	.295**	.310**	.253**	.251**	.300**	.278**
AAM_8	.228**	.165**	.324**	.299**	.332**	.324**	.361**	.402**	.294**	.273**	.286**	.297**	.300**
AAM_9	.300**	.130*	.344**	.272**	.413**	.277**	.278**	.264**	.261**	.281**	.217**	.211**	.317**
AAM_10	.225**	.201**	.278**	.215**	.262**	.298**	.300**	.340**	.303**	.351**	.297**	.243**	.247**
AAM_11	.239**	0.11	.321**	.285**	.227**	.329**	.283**	.282**	.303**	.263**	.329**	.197**	.308**
AAM_12	.123*	0.044	.170**	.171**	.158**	.169**	.138*	.168**	.255**	.215**	.121*	0.091	.148*
AAM_13	.280**	0.11	.283**	.221**	.276**	.282**	.302**	.229**	.270**	.256**	.232**	.203**	.261**
AAM_14	.231**	.123*	.255**	.246**	.220**	.243**	.277**	.260**	.255**	.245**	.280**	.217**	.213**
AAM_15	.287**	.266**	.294**	.290**	.335**	.301**	.321**	.355**	.247**	.292**	.316**	.355**	.343**
AAM_16	.331**	.164**	.339**	.196**	.265**	.220**	.306**	.297**	.209**	.231**	.211**	.236**	.333**
AAM_17	.313**	.123*	.264**	.175**	.218**	.240**	.303**	.288**	.296**	.348**	.230**	.252**	.311**
AAM_18	.219**	0.026	.167**	.142*	.137*	.158**	.149*	.155**	.197**	.213**	.169**	0.111	.123*
AAM_19	0.09	-0.041	.149*	0.11	.141*	.167**	.193**	.149*	.241**	.192**	0.11	.153*	.183**
AAM_20	.183**	0.079	.153*	.130*	.184**	.186**	.178**	.196**	.198**	.177**	.190**	.122*	0.108
AAM_21	.188**	.187**	.267**	.204**	.263**	.195**	.288**	.293**	.253**	.243**	.204**	.246**	.208**
AAM_22	.293**	.249**	.361**	.306**	.346**	.302**	.358**	.385**	.304**	.336**	.337**	.363**	.367**
AAM_25	.304**	.204**	.305**	.326**	.304**	.327**	.311**	.308**	.284**	.230**	.305**	.357**	.353**

Table 18. (Continued) Correlations between AAM and Body Comparison Scale-Asian subscale

AAM_24	.271**	.152*	.318**	.251**	.323**	.294**	.302**	.320**	.240**	.282**	.196**	.298**	.328**
AAM_23	0.111	-0.007	-0.003	0.027	0.005	0.017	-0.029	0.041	0.053	0.024	-0.005	0.035	0.042
AAM_26	.329**	.258**	.415**	.338**	.451**	.316**	.367**	.417**	.394**	.425**	.388**	.465**	.463**
AAM_27	0.102	.148*	.162**	0.109	.172**	.121*	.161**	.158**	.194**	.215**	.162**	.130*	0.099
AAM_28	0.107	-0.04	0.081	0.071	0.091	0.111	.124*	0.072	0.108	0.063	0.089	0.096	0.102
AAM_29	.282**	.128*	.287**	.243**	.266**	.256**	.322**	.332**	.266**	.249**	.279**	.283**	.345**
AAM_30	.266**	0.074	.262**	.260**	.282**	.280**	.277**	.248**	.297**	.285**	.279**	.253**	.309**
AAM_31	.265**	0.079	.240**	.209**	.219**	.258**	.286**	.270**	.259**	.223**	.267**	.246**	.276**
AAM_32	0.051	.123*	0.035	0.03	0.021	0.082	0.094	0.107	.120*	0.102	0.082	0.065	0.016
AAM_33	.189**	.158**	.252**	.163**	.264**	.201**	.240**	.268**	.194**	.238**	.228**	.240**	.274**

Note. AAM = Aspects of Appearance Measure; BCS = Body Comparison Scale; **Correlation is significant at the .01 level (2-tailed) *Correlation is significant at the 0.05 level (2-tailed)

Table 19.

Correlations between AAM and Body Comparison Scale -Asian Subscale (cont.)

	BCS_15	BCS_16	BCS_17	BCS_18	BCS_19	BCS_20	BCS_21	BCS_22	BCS_23	BCS_24	BCS_25	BCS_26	BCS_27
AAM_1	.333**	.271**	.251**	.295**	.308**	.309**	.253**	.221**	.286**	.324**	.230**	.289**	.313**
AAM_2	.130*	0.061	.139*	.207**	.214**	.159**	0.085	0.099	.237**	.264**	0.085	.303**	.226**

Table 19. (Continued) Correlations between AAM and Body Comparison Scale -Asian Subscale (cont.)

AAM_3	.382**	.309**	.296**	.360**	.383**	.363**	.328**	.288**	.396**	.401**	.244**	.293**	.321**
AAM_4	.248**	.229**	.210**	.268**	.232**	.252**	.264**	.268**	.365**	.364**	.210**	.263**	.279**
AAM_5	.277**	.251**	.215**	.270**	.259**	.258**	.268**	.254**	.283**	.277**	.237**	.228**	.304**
AAM_6	.215**	.131*	.140*	.179**	.217**	.193**	.247**	.185**	.186**	.157**	.262**	.213**	.219**
AAM_7	.283**	.253**	.190**	.185**	.169**	.185**	.265**	.202**	.275**	.269**	.240**	.261**	.247**
AAM_8	.304**	.237**	.264**	.249**	.219**	.277**	.330**	.244**	.324**	.317**	.296**	.251**	.261**
AAM_9	.272**	.180**	.143*	.177**	.174**	.219**	.289**	.152*	.263**	.247**	.244**	.219**	.255**
AAM_10	.277**	.236**	.230**	.246**	.264**	.232**	.316**	.238**	.279**	.257**	.310**	.298**	.302**
AAM_11	.249**	.235**	.230**	.231**	.227**	.248**	.292**	.235**	.290**	.302**	.242**	.251**	.236**
AAM_12	0.105	.123*	0.067	.149*	0.087	.125*	.191**	.194**	.288**	.268**	.160**	.205**	.186**
AAM_13	.195**	.209**	.134*	.208**	.156**	.185**	.234**	.150*	.296**	.289**	.221**	.222**	.213**
AAM_14	.190**	.161**	.145*	.197**	.177**	.159**	.339**	.178**	.319**	.315**	.283**	.268**	.269**
AAM_15	.333**	.354**	.270**	.330**	.324**	.277**	.345**	.274**	.284**	.329**	.285**	.368**	.279**
AAM_16	.244**	.280**	.263**	.239**	.238**	.271**	.229**	.208**	.185**	.173**	.191**	.189**	.197**
AAM_17	.266**	.200**	.221**	.243**	.233**	.214**	.165**	.189**	.318**	.306**	.149*	.247**	.273**

Table 19. (Continued) Correlations between AAM and Body Comparison Scale -Asian Subscale (cont.)

AAM_18	.148*	0.108	.131*	.119*	0.115	0.084	.251**	0.118	.279**	.276**	.205**	.239**	.243**
AAM_19	.155*	0.099	0.092	.196**	.167**	.175**	.135*	.141*	.347**	.333**	.187**	.290**	.240**
AAM_20	.163**	0.072	0.081	.163**	.154*	.152*	.177**	.120*	.231**	.201**	.153*	.142*	.185**
AAM_21	.248**	.214**	.253**	.166**	.175**	.179**	.191**	.173**	.243**	.175**	.209**	.144*	.194**
AAM_22	.374**	.339**	.344**	.288**	.323**	.355**	.303**	.323**	.322**	.294**	.274**	.304**	.324**
AAM_25	.317**	.316**	.252**	.330**	.289**	.299**	.340**	.255**	.318**	.361**	.292**	.367**	.292**
AAM_24	.345**	.247**	.227**	.305**	.269**	.300**	.261**	.244**	.342**	.342**	.319**	.337**	.339**
AAM_23	-0.003	0.016	-0.039	-0.077	-0.036	-0.062	0.015	-0.032	-0.006	0.055	-0.005	-0.01	-0.037
AAM_26	.420**	.418**	.390**	.353**	.385**	.390**	.389**	.335**	.412**	.373**	.314**	.313**	.339**
AAM_27	.158**	.119*	.151*	.143*	.144*	.157**	.165**	0.097	.151*	0.106	.174**	.156**	.145*
AAM_28	0.107	0.035	0.053	0.085	0.072	0.059	0.101	.120*	.186**	.231**	.131*	.162**	.130*
AAM_29	.303**	.293**	.328**	.309**	.277**	.316**	.280**	.272**	.343**	.327**	.265**	.287**	.327**
AAM_30	.242**	.171**	.216**	.266**	.250**	.195**	.294**	.218**	.339**	.340**	.188**	.295**	.257**
AAM_31	.246**	.202**	.203**	.236**	.207**	.210**	.202**	.211**	.298**	.325**	.201**	.259**	.275**
AAM_32	0.085	0.071	0.108	0.087	0.117	0.114	0.097	.140*	.160**	0.093	0.086	0.079	0.038
AAM_33	.333**	.271**	.251**	.295**	.308**	.309**	.253**	.221**	.286**	.324**	.230**	.289**	.313**

Note. AAM = Aspects of Appearance Measure; BCS = Body Comparison Scale; **Correlation is significant at the .01 level (2-tailed);
*Correlation is significant at the 0.05 level (2-tailed)

Table 20.

Correlations between AAM and Body Comparison Scale-Caucasian subscale

	BCS_2	BCS_3	BCS_4	BCS_5	BCS_6	BCS_7	BCS_8	BCS_9	BCS_10	BCS_11	BCS_12	BCS_13	BCS_14
AAM_1	.228**	.149*	.153*	.197**	.149*	.213**	.145*	.202**	0.028	.129*	.143*	.172**	0.093
AAM_2	.160**	0.085	.125*	.165**	.121*	.137*	.165**	.220**	0.077	0.081	0.073	0.034	0.085
AAM_3	.304**	.218**	.229**	.347**	.202**	.345**	.186**	.306**	.204**	.167**	.175**	.161**	.282**
AAM_4	.242**	.187**	.218**	.421**	.305**	.319**	.225**	.443**	.257**	.195**	.190**	.183**	.232**
AAM_5	.217**	.164**	.165**	.399**	.258**	.289**	.237**	.333**	.204**	.194**	.213**	.191**	.224**
AAM_6	.159**	.152*	0.086	.304**	.319**	.258**	.251**	.249**	.213**	.252**	.227**	.166**	.187**
AAM_7	.395**	.312**	.257**	.354**	.310**	.299**	.253**	.408**	.320**	.326**	.341**	.294**	.354**
AAM_8	.317**	.299**	.202**	.377**	.351**	.312**	.328**	.353**	.405**	.283**	.318**	.250**	.307**
AAM_9	.189**	.143*	0.049	.338**	.303**	.302**	.228**	.295**	.155*	0.088	0.108	0.106	0.114
AAM_10	.316**	.237**	.154*	.287**	.259**	.209**	.247**	.331**	.280**	.290**	.312**	.242**	.245**
AAM_11	.215**	.198**	.200**	.219**	.220**	.180**	.287**	.226**	.285**	.245**	.204**	.277**	.202**
AAM_12	.159**	.163**	0.023	.131*	.280**	0.116	.209**	.247**	.256**	.234**	.187**	.216**	0.111
AAM_13	.248**	.143*	.166**	.344**	.387**	.281**	.231**	.365**	.227**	0.113	.147*	.172**	.193**
AAM_14	.243**	.197**	.118*	.237**	.250**	.149*	.205**	.339**	.285**	.297**	.306**	.271**	.259**
AAM_15	.276**	.213**	.275**	.197**	.199**	.178**	.214**	.186**	.191**	.171**	.212**	.162**	.248**
AAM_16	.215**	0.088	.126*	.196**	0.106	.136*	0.1	.172**	0.007	0.11	0.108	0.116	.158**
AAM_17	.266**	.258**	.172**	.354**	.286**	.281**	.256**	.378**	.317**	.254**	.240**	.216**	.256**
AAM_18	.119*	.126*	0.044	.199**	.254**	.148*	.248**	.239**	.261**	.157**	.238**	.206**	.136*

Table 20. (Continued) Correlations between AAM and Body Comparison Scale-Caucasian subscale

AAM_19	.200**	.223**	0.042	.168**	.240**	.172**	.210**	.296**	.303**	.297**	.260**	.193**	.183**
AAM_20	.264**	.289**	.170**	.305**	.273**	.198**	.289**	.315**	.374**	.238**	.277**	.251**	.207**
AAM_21	.229**	.151*	.177**	.281**	.251**	.260**	.169**	.322**	.257**	.256**	.261**	.157**	.242**
AAM_22	.295**	.189**	.294**	.282**	.289**	.296**	.258**	.298**	.214**	.188**	.232**	.220**	.297**
AAM_25	.205**	.215**	.189**	.172**	.274**	.173**	.236**	.224**	.221**	.232**	0.106	.235**	.240**
AAM_24	.214**	.146*	.180**	.281**	.327**	.247**	.235**	.308**	.267**	.169**	.195**	.166**	.228**
AAM_23	0.046	0.118	-0.01	-0.029	0.062	-0.054	0.087	0.073	0.054	0.051	0.045	0.069	-0.019
AAM_26	.176**	.166**	.264**	.328**	.271**	.403**	.245**	.323**	.243**	.224**	.240**	.267**	.350**
AAM_27	.229**	.127*	.181**	.251**	.205**	.215**	.174**	.273**	.219**	.287**	.274**	.176**	.204**
AAM_28	0.068	.154*	0.033	.158**	.271**	.120*	.263**	.231**	.280**	.165**	.188**	.223**	.128*
AAM_29	.182**	.238**	.290**	.310**	.257**	.368**	.270**	.233**	.260**	.190**	.253**	.221**	.255**
AAM_30	.246**	.239**	.133*	.339**	.326**	.249**	.286**	.371**	.366**	.222**	.241**	.251**	.253**
AAM_31	.119*	.160**	0.008	.205**	.215**	.176**	.212**	.219**	.187**	.127*	.164**	.176**	.169**
AAM_32	.133*	.126*	0.091	.139*	0.112	0.012	.135*	.206**	.256**	.231**	.161**	.126*	.131*
AAM_33	.146*	.136*	.145*	.240**	.195**	.227**	.170**	.231**	.198**	.189**	.207**	.168**	.179**

Note. AAM = Aspects of Appearance Measure; BCS = Body Comparison Scale; **Correlation is significant at the .01 level (2-tailed); *Correlation is significant at the 0.05 level (2-tailed)

Table 21.

Correlations between AAM and Body Comparison Scale -Caucasian Subscale (cont.)

	BCS_15	BCS_16	BCS_17	BCS_18	BCS_19	BCS_20	BCS_21	BCS_22	BCS_23	BCS_24	BCS_25	BCS_26	BCS_27
AAM_1	0.091	0.113	.136*	.139*	.186**	.151*	0.088	0.074	0.084	0.095	0.052	0.068	.127*
AAM_2	.122*	0.094	0.105	.168**	.148*	0.108	0.09	0.059	.178**	.210**	0.044	.202**	.164**
AAM_3	.275**	.283**	.273**	.268**	.252**	.271**	.224**	.162**	.213**	.220**	.122*	.144*	.178**
AAM_4	.238**	.258**	.185**	.223**	.158**	.194**	.207**	.161**	.224**	.233**	.205**	.208**	.226**
AAM_5	.250**	.240**	.241**	.208**	.178**	.257**	.222**	.226**	.210**	.188**	.202**	.184**	.227**
AAM_6	.180**	.226**	.161**	.191**	.178**	.189**	.269**	.222**	.232**	.225**	.202**	.212**	.225**
AAM_7	.354**	.356**	.279**	.288**	.244**	.309**	.352**	.249**	.347**	.347**	.340**	.317**	.331**
AAM_8	.364**	.306**	.315**	.299**	.206**	.330**	.364**	.237**	.391**	.332**	.369**	.338**	.377**
AAM_9	.145*	.165**	0.107	0.057	0.054	.133*	.193**	0.055	.141*	.161**	.176**	.140*	.149*
AAM_10	.282**	.231**	.262**	.234**	.217**	.264**	.382**	.267**	.320**	.322**	.306**	.333**	.319**
AAM_11	.243**	.286**	.206**	.179**	.135*	.224**	.278**	.193**	.229**	.259**	.210**	.236**	.210**
AAM_12	.165**	.160**	0.115	.178**	0.099	.148*	.334**	.181**	.364**	.378**	.420**	.344**	.359**
AAM_13	.185**	.254**	.200**	.157**	0.093	.191**	.232**	.137*	.263**	.291**	.285**	.207**	.238**
AAM_14	.242**	.249**	.184**	.186**	.145*	.200**	.440**	.218**	.353**	.353**	.393**	.287**	.331**
AAM_15	.226**	.322**	.294**	.237**	.254**	.255**	.228**	.181**	.219**	.232**	.200**	.238**	.208**
AAM_16	0.063	.176**	.180**	0.064	0.108	0.105	.123*	0.067	0.027	-0.009	0.045	0.03	0.015
AAM_17	.272**	.222**	.235**	.293**	.251**	.271**	.289**	.190**	.311**	.306**	.236**	.275**	.301**
AAM_18	.147*	.129*	.172**	.139*	0.1	.120*	.231**	.145*	.317**	.307**	.279**	.266**	.283**
AAM_19	.243**	.207**	.148*	.254**	.196**	.224**	.307**	.212**	.461**	.470**	.405**	.393**	.430**

Table 21. (Continued) Correlations between AAM and Body Comparison Scale -Caucasian Subscale (cont.)

AAM_20	.327**	.229**	.225**	.257**	.179**	.244**	.310**	.224**	.373**	.339**	.281**	.295**	.303**
AAM_21	.179**	.203**	.177**	.178**	.126*	.161**	.207**	.160**	.235**	.200**	.190**	.176**	.229**
AAM_22	.248**	.338**	.357**	.207**	.247**	.283**	.241**	.230**	.212**	.169**	.146*	.195**	.191**
AAM_25	.255**	.256**	.227**	.246**	.213**	.230**	.268**	.191**	.305**	.296**	.222**	.270**	.280**
AAM_24	.266**	.218**	.208**	.232**	.155*	.245**	.207**	.194**	.300**	.301**	.239**	.257**	.257**
AAM_23	0.015	0.018	0.017	-0.006	-0.012	0.007	0.088	0.02	0.099	0.098	0.067	0.099	0.093
AAM_26	.316**	.428**	.341**	.267**	.284**	.237**	.258**	.205**	.225**	.205**	.205**	.206**	.235**
AAM_27	.178**	.218**	.217**	.186**	.152*	.187**	.229**	.195**	.221**	.189**	.161**	.159**	.174**
AAM_28	.220**	.167**	0.089	.181**	0.112	.154*	.226**	.188**	.351**	.364**	.306**	.328**	.321**
AAM_29	.257**	.202**	.295**	.267**	.275**	.302**	.203**	.253**	.245**	.255**	.222**	.288**	.242**
AAM_30	.257**	.288**	.213**	.274**	.191**	.183**	.324**	.181**	.311**	.310**	.323**	.351**	.341**
AAM_31	.191**	.134*	0.096	.174**	0.107	0.11	.142*	.127*	.257**	.259**	.170**	.240**	.240**
AAM_32	.167**	.175**	.212**	.159**	.164**	.166**	.184**	.158**	.261**	.197**	.175**	.217**	.196**
AAM_33	.153*	.210**	.165**	.185**	.130*	.148*	.123*	.127*	.158**	.141*	.123*	.169**	.162**

Note. AAM = Aspects of Appearance Measure; BCS = Body Comparison Scale; **Correlation is significant at the .01 level (2-tailed); *Correlation is significant at the 0.05 level (2-tailed)

Table 22.

Correlations between AAM and Perceived Asian Media Pressure

	PAMAP _1	PAMAP _2	PAMAP _3	PAMAP _4	PAMAP _5	PAMAP _6	PAMAP _7	PAMAP _8	PAMAP _9	PAMAP _10	PAMAP _11	PAMAP _12
AAM_1	.268**	.265**	.265**	.316**	.333**	.239**	.271**	.235**	.238**	.224**	.220**	.196**

Table 22. (Continued) Correlations between AAM and Perceived Asian Media Pressure

AAM_2	.226**	.254**	.238**	.272**	.207**	.100	.138*	.109	.067	.082	.095	.084
AAM_3	.284**	.296**	.263**	.318**	.299**	.230**	.266**	.239**	.246**	.233**	.237**	.216**
AAM_4	.181**	.229**	.175**	.221**	.273**	.257**	.270**	.253**	.197**	.177**	.179**	.159**
AAM_5	.270**	.309**	.269**	.319**	.335**	.284**	.306**	.275**	.202**	.197**	.219**	.196**
AAM_6	.217**	.205*8	.188**	.194**	.189**	.216**	.211**	.256*8	.157**	.202**	.186**	.171**
AAM_7	.301**	.283**	.265**	.325**	.361**	.317**	.346**	.339**	.300**	.306**	.298**	.264**
AAM_8	.282**	.340**	.274**	.296**	.324**	.342**	.362**	.372**	.236**	.273**	.271**	.238**
AAM_9	.253**	.323**	.264**	.281**	.320**	.256**	.273**	.271**	.190**	.211**	.217*	.186**
AAM_10	.335**	.345**	.320**	.356**	.287**	.277**	.295**	.332**	.269**	.295**	.279**	.259**
AAM_11	.210**	.253**	.215**	.249**	.195**	.178**	.216**	.224**	.221**	.210**	.230**	.208**
AAM_12	.170**	.207**	.211**	.250**	.215**	.186**	.213**	.170**	.164**	.139*	.145*	.143*
AAM_13	.257**	.326**	.289**	.317**	.311**	.319**	.318**	.318**	.193**	.191**	.203**	.193**
AAM_14	.223**	.228**	.212**	.234**	.274**	.294**	.295**	.269**	.206**	.138*	.155**	.154*
AAM_15	.291**	.322**	.324**	.351**	.359**	.296**	.336**	.298**	.318**	.294**	.296**	.280**
AAM_16	.157**	.146*	.147*	.179**	.232**	.172**	.178**	.150*	.255**	.245**	.237**	.222**
AAM_17	.254**	.274**	.258**	.310**	.293**	.252**	.288**	.243**	.210**	.216**	.211**	.181**
AAM_18	.185**	.214**	.207**	.219**	.177**	.197**	.185**	.201**	.091	.104	.108	.099
AAM_19	.226**	.274**	.249**	.284**	.250**	.242**	.244**	.256**	.167**	.148*	.140*	.122*
AAM_20	.118	.169**	.143*	.164**	.168**	.205**	.191**	.231**	.189**	.210**	.195**	.179**
AAM_21	.224**	.205**	.178**	.182**	.190**	.253**	.273**	.326**	.214**	.220**	.212**	.204**
AAM_22	.212**	.239**	.238**	.279**	.301**	.283**	.271**	.281**	.287**	.284**	.277**	.250**
AAM_25	.214**	.296**	.273**	.304**	.308**	.248**	.275**	.245**	.230**	.207**	.206**	.190**
AAM_24	.286**	.297**	.287**	.309**	.262**	.266**	.280**	.281**	.294**	.247**	.279**	.240**
AAM_23	-.042	-.004	.006	.003	.013	-.003	-.004	-.032	.022	.007	.02	.001
AAM_26	.288**	.332**	.317**	.333**	.383**	.382**	.368**	.375**	.314**	.306**	.304**	.276**
AAM_27	.70**	.256**	.250**	.240**	.228**	.256**	.258**	.278**	.214**	.224**	.218**	.211**

Table 22. (Continued) Correlations between AAM and Perceived Asian Media Pressure

AAM_28	.200**	.234**	.231**	.227**	.193**	.179**	.189**	.213**	.068	.018	.036	.003
AAM_29	.310**	.381**	.323**	.373**	.399**	.351**	.366**	.328**	.313**	.247**	263**	.232**
AAM_30	.189**	.228**	.210**	.264**	.275**	.224**	.224**	.244**	.126*	.143*	.150*	.120*
AAM_31	.214**	.227**	.196**	.254**	.247**	.192**	.198**	.221**	.162**	.143*	.148*	.118
AAM_32	.059	.115	.108	.116	.098	.117	.122*	.079	.052	.017	.025	.013
AAM_33	.152*	.118	.121*	.160**	.168**	.201**	.209**	.203**	.205**	.197**	.166**	.157**

Note. AAM = Aspects of Appearance Measure; PAMP = Perceived Asian Media Pressure; **Correlation is significant at the .01 level (2-tailed); *Correlation is significant at the 0.05 level (2-tailed)

Table 23.

Correlations between AAM and Perceived Western Media Pressure

	PWMAP _1	PWMAP _2	PWMAP _3	PWMAP _4	PWMAP _5	PWMAP _6	PWMAP _7	PWMAP _8	PWMAP _9	PWMAP _10	PWMAP _11	PWMAP _12
AAM_1	.036	-.032	-.029	-.011	.012	-.008	.001	-.01	.11	.091	.087	.08
AAM_2	.180**	.226**	.208**	.232**	.138*	.122*	.146*	.137*	.122*	.120*	.128*	.136*
AAM_3	.146*	.072	.087	.078	.161**	.120*	.146*	.128*	.188**	.174**	.180**	.191**
AAM_4	.079	.047	.018	.060	.175**	.184**	.186**	.141*	.208**	.203**	.195**	.215**
AAM_5	.138*	.081	.077	.121*	.183**	.175**	.212**	.168**	.146*	.118*	.150*	.126*
AAM_6	.195**	.151*	.131*	.178**	.198**	.227**	.230**	.214**	.176**	.186**	.208**	.209**
AAM_7	.225**	.152*	.117	.177**	.288**	.226**	.278**	.235**	.184**	.202**	.216**	.195**
AAM_8	.253**	.201**	.195**	.243**	.322**	.321**	.382**	.278**	.216**	.214**	.223**	.216**
AAM_9	.101	.11	.070	.127*	.192**	.117	.144*	.103	.117	.138*	.178*	.162**
AAM_10	.277**	.229**	.242**	.235**	.282**	.256**	.294**	.222**	.205**	.202**	.212**	.214**
AAM_11	.219**	.187**	.194**	.151*	.221**	.237**	.230**	.207**	.169**	.161**	.170**	.179**
AAM_12	.260**	.255**	.262**	.253**	.300**	.254**	.303**	.231**	.132*	.093	.117	.120*
AAM_13	.180**	.183**	.156**	.193**	.290**	.263**	.265**	.249**	.148*	.179*	.204**	.191**

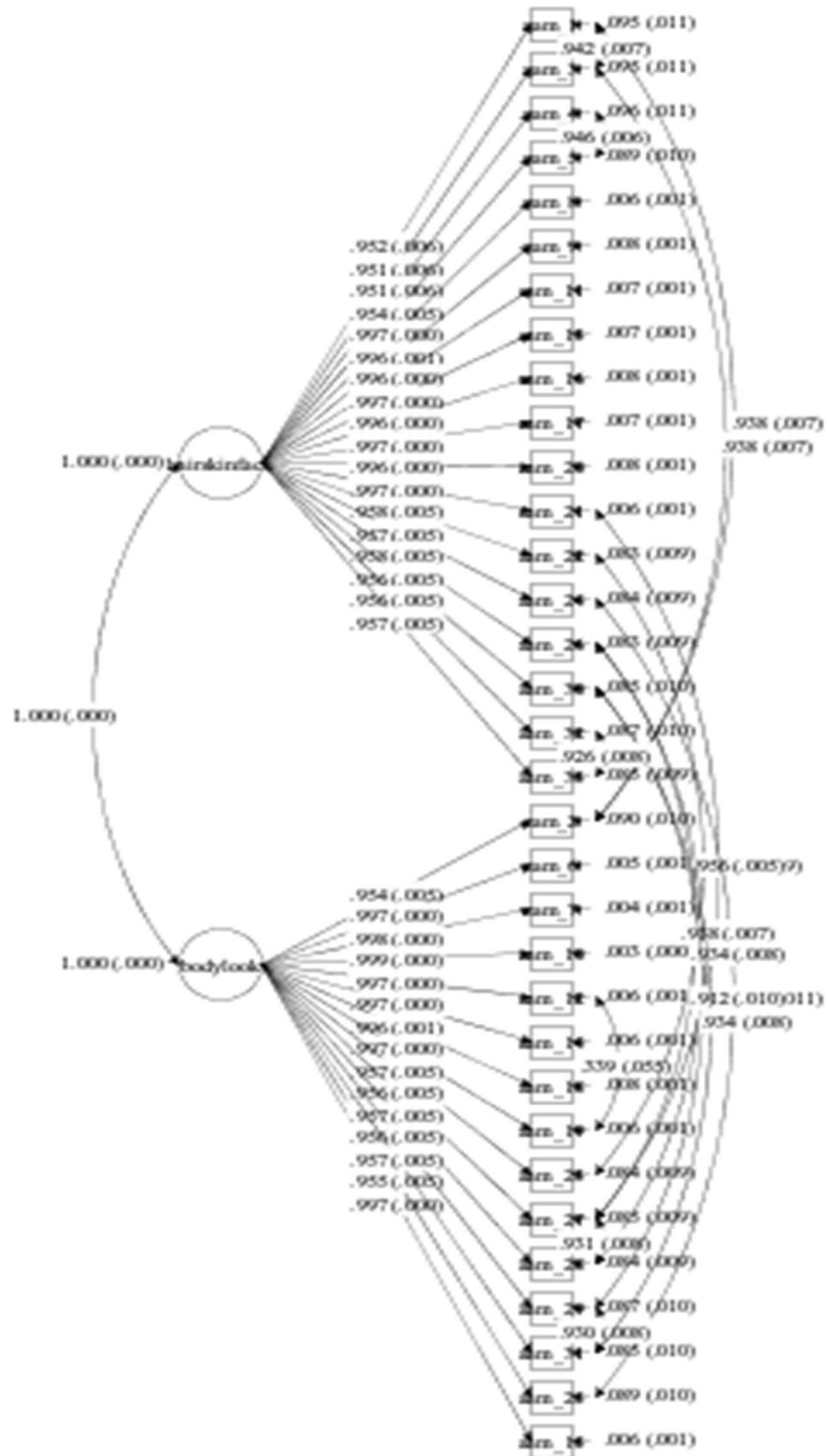
Table 23. (Continued) Correlations between AAM and Perceived Western Media Pressure

AAM_14	.199**	.141*	.158**	.171**	.260**	.227**	.270**	.244**	.144*	.133*	.135*	.141*
AAM_15	.142*	.084	.086	.096	.122*	.116	.123*	.156**	.200**	.188**	.160**	.200**
AAM_16	-.029	-.058	-.068	-.059	.066	.031	.040	.025	.178**	.187**	.159**	.169**
AAM_17	.153*	.180**	.140*	.202**	.242**	.152*	.231**	.134*	.128*	.122*	.123*	.125*
AAM_18	.236**	.182**	.187**	.209**	.230**	.208**	.245**	.160**	.117	.116	.126*	.131*
AAM_19	.347**	.367**	.340**	.366**	.366**	.311**	.366**	.303**	.152*	.141*	.171**	.138**
AAM_20	.246**	.283**	.230**	.265**	.334**	.306**	.327**	.284**	.185**	.167**	.177**	.188**
AAM_21	.161**	.189**	.178**	.179**	.259**	.381**	.343**	.375**	.201**	.209**	.207**	.213**
AAM_22	.190**	.130*	.097	.128*	.170**	.181**	.169**	.157**	.238**	.193**	.185**	.196**
AAM_25	.140*	.120*	.108	.102	.184**	.136*	.152*	.170**	.140*	.123*	.133*	.127*
AAM_24	.165**	.153*	.135*	.158**	.208**	.154*	.172**	.126*	.136*	.136*	.142*	.149*
AAM_23	.025	.076	.052	.066	.066	.016	.020	-.040	-.044	-.050	-.041	-.024
AAM_26	.103	.035	.035	.024	.156**	.199**	.188**	.201**	.219**	.208**	.204**	.221**
AAM_27	.272**	.283**	.267**	.277**	.266**	.267**	.290**	.314**	.194**	.164**	.171**	.170**
AAM_28	.260**	.294**	.250**	.325**	.313**	.288**	.322**	.259**	.088	.071	.097	.109
AAM_29	209**	.134*	.134*	.199**	.181**	.140*	.182**	.121*	.122*	.119*	.141*	.110
AAM_30	.121*	.116	.072	.113	.189**	.185**	.185**	.160**	.056	.058	.062	.078
AAM_31	.150*	.154*	.118	.141*	.238**	.174**	.190**	.137*	.069	.074	.053	.084
AAM_32	.200**	.231**	.210**	.258**	.208**	.207**	.211**	.145*	.062	.020	.060	.023
AAM_33	.095	.116	.078	.122*	.166**	.241**	.235**	.232**	.213**	.177**	.162**	.181**

Note. AAM = Aspects of Appearance Measure; PWMP = Perceived Western Media Pressure; **Correlation is significant at the .01 level (2-tailed); *Correlation is significant at the 0.05 level (2-tailed)

Figure 2.

CFA 2-Factor Model with Standardized Scores



APPENDIX C. QUESTIONNAIRES

Demographics Questionnaire (BU & UHM)

1. Age:
    a. ___years old
2. Gender:
    a. Male
    b. Female
    c. Other:___
3. Ethnicity/Race (please **select all** groups that apply to you):
    a. American Indian or Alaska Native
    b. Asian Indian
    c. Black or African American
    d. Chinese
    e. Filipino
    f. Japanese
    g. Okinawan
    h. Korean
    i. Native Hawaiian
    j. Other Pacific Islander (e.g., from Polynesia, Melanesia, or Micronesia) ____(please specify)
    k. Vietnamese
    l. White
    m. Hispanic/Latina
    n. Spanish
    o. Other_______(please specify)
    p. Biracial
    q. Multiethnic
4. Ethnicity/Race (please select the **one ethnic or racial group** with which you most identify):
    a. American Indian or Alaska Native
    b. Asian Indian
    c. Black or African American
    d. Chinese
    e. Filipino
    f. Japanese
    g. Okinawan
    h. Korean
    i. Native Hawaiian
    j. Other Pacific Islander (e.g., from Polynesia, Melanesia, or Micronesia) ____(please specify)

k. Vietnamese

l. White

m. Hispanic/Latina

n. Spanish

o. Other _______(please specify)

p. Biracial

q. Multiethnic

5. Were you born in the U.S.A?

    a. Yes___

        i. Describe the generations of your family that have been living in the U.S.A. (select **all** that apply)

            1. One of my parents was born in the U.S.A.

            2. Both of my parents were born in the U.S. A.

            3. My ____(please specify) were born in the U.S.A.

            4. My family is indigenous/native.

            5. None of my family members were born in the U.S.A.

            6. I am not sure.

    b. No___

        i. How many years have you lived in the U.S. A.? ____years

        ii. What is your country of origin? ____

6. Were you born in Hawaiʻi?

    a. Yes___

        i. Describe the generations of your family that have been living in Hawaiʻi. (select **all** that apply)

            1. One of my parents was born in Hawaiʻi.

            2. Both of my parents were born in Hawaiʻi.

            3. My___ (please specify) were born in Hawaiʻi.

            4. My family is indigenous/native.

            5. None of my family members were born in Hawaiʻi

            6. I am not sure.

    b. No___

        i. How many years have you lived in Hawaiʻi? ___years

        ii. What is your country of origin? ___

7. Is English the primary language you speak.

    a. Yes

    b. IF NO: What is the primary language that you speak? ____

8. What other languages BESIDES English do you speak fluently? __________

Demographics Questionnaire (Philippines)

1. Age:
    a. ___years old
2. Gender:
    a. Male
    b. Female
    c. Other:___
3. Ethnicity/Race (please **select all** groups that apply to you):
    a. Asian Indian
    b. Black or African American
    c. Chinese
    d. Filipino
    e. Japanese
    f. Korean
    g. Vietnamese
    h. White
    i. Other_______(please specify)
    j. Biracial
    k. Multiethnic
4. Ethnicity/Race (please select the **one ethnic or racial group** with which you most identify):
    a. Asian Indian
    b. Black or African American
    c. Chinese
    d. Filipino
    e. Japanese
    f. Korean
    g. Vietnamese
    h. White
    i. Other_______(please specify)
    j. Biracial
    k. Multiethnic
5. Were you born in the Philippines?
    a. Yes___
    b. No___
        i. How many years have you lived in the Philippines? ____years
        ii. What is your country of origin? ____
6. Is English the primary language you speak.

a. Yes
b. IF NO: What is the primary language that you speak? ____

7. What is your English proficiency? (Please select the statement that is true for you):
    a. Can understand documents, correspondence and reports, including the finer points of complex tasks
    b. Can read quickly enough to cope with an academic course, to read the media for information or to understand non-standard correspondence
    c. Can scan texts for relevant information, and understand detailed instructions or advice
    d. Can understand basic notices, instructions, or information.

Demographics Questionnaire (South Korea)

1. Age:
    b. ___years old
2. Gender:
    c. Male
    d. Female
3. Ethnicity/Race (please **select all** groups that apply to you):
    a. Korean
    b. Asian Indian
    c. Chinese
    d. Filipino
    e. Japanese
    f. Vietnamese
    g. White
    h. Other_______(please specify)
    i. Biracial
    j. Multiethnic
4. Ethnicity/Race (please select the **one ethnic or racial group** with which you most identify):
    a. Korean
    b. Asian Indian
    c. Chinese
    d. Filipino
    e. Japanese
    f. Vietnamese
    g. White
    h. Other _______(please specify)
    i. Biracial
    j. Multiethnic
5. Were you born in the South Korea?
    a. Yes___
    b. No___
        i. How many years have you lived in the South Korea? ____years
        ii. What is your country of origin? ____
6. Is Korean the primary language you speak.
    a. Yes
    b. IF NO: What is the primary language that you speak? ____

Aspects of Appearance Measure

This measure draws on aspects of appearance from a variety of cultures. These statements reflect how people might think, feel, or behave regarding a woman's physical appearance. Please indicate how true each statement is for you. Using the scale below, indicate your answer by clicking under the most applicable response.

1 False, Not at all true	2 Slightly True	3 Somewhat True	4 Mostly True	5 Very True

1. It is important for me to have fair skin.
2. I aspire to have very thin legs (e.g., "chopstick" legs or legs with a "thigh gap").
3. I would prefer to have a heart-shaped faces (wider at the top with a pointy chin).
4. I prefer a narrow, long, straight nose.
5. I prefer upturned ("almond-shaped") eyes rather than downturned ("round") eyes.
6. I like looking "innocent and cute."
7. I desire to have large, wide-set eyes (e.g., "Bambi" eyes).
8. To maintain a natural-looking appearance, I prefer not to wear a lot of make-up.
9. I desire to have an oval-shaped face with a pointy chin (e.g., "melon seed" or "goose egg" face).
10. I like to wear lots of make-up in order to look attractive or sexy.
11. I aspire to be popular for my looks (e.g., "ulzzang").
12. I desire to have a pout (e.g., "cherry-shaped" mouth).
13. I would prefer having double-eyelids rather than mono-eyelids.
14. I aspire to have long, sleek hair.
15. I desire to have curves.
16. I prefer having a small nose over having a broad, flat nose.
17. I desire to have larger breasts over smaller breasts.
18. I aspire to look cute in a child-like way (e.g., "kawaii").
19. I think it is desirable to stay out of the sun as much as possible in order to maintain my natural skin tone (i.e., not due to health concerns).
20. I prefer to have dainty features.
21. I would prefer to be of mixed descent ("mestiza" or "hapa").

22. I desire to have a slim body with curves (“S” figure).

23. I desire to have high cheek bones.

24. I prefer to have a more androgynous (combined masculine and feminine) look.

25. I would prefer to have a symmetrical face.

26. I desire to have an elegant look.

27. I prefer to have curly hair over straight hair.

Price I’d Pay

1	2	3	4	5	6	7
Strongly Disagree	Mostly Disagree	Slightly Disagree	Neither Disagree nor Agree	Slightly Agree	Mostly Agree	Strongly Agree

1. I would be willing to pay a high personal price to achieve my ideals for physical attractiveness.
2. No matter what it takes, I am committed to improving my physical appearance.
3. I feel that I owe to myself and/or others to be as attractive as I can be.
4. Even if it comes at a cost, I place a high value on fulfilling standards for attractiveness.
5. I am willing to pursue my ideal body size/ shape, no matter what the cost.
6. Allocating more time in improving my physical appearance is a sacrifice I’m willing to make.
7. I am willing to put a lot of effort into changing my physical appearance to match my ideal.
8. If necessary, I would give up some other values to fulfill my beauty ideals.

Asian Media Consumption

1. Do you watch Asian TV shows?
    a. From which countries?
    b. How many hours a week?______hrs/wk
2. Do you go on Asian internet sites?
    a. From which countries?
    b. How many hours a week? ______hrs/wk
3. Do you read Asian magazines?
    a. From which countries?
    b. How many hours a week? ______hrs/wk
4. Do you watch Asian movies?
    a. From which countries?
    b. How many hours a week? ______hrs/wk

5. Do you watch Asian music videos?
    a. From which countries?
    b. How many hours a week? ______hrs/wk
6. Do you watch fashion, healthy, and beauty advertisements/commercials from Asian countries?
    a. From which countries?
    b. How many hours a week? ______hrs/wk

Western Media Consumption

1. Do you watch American/European/Canadian TV shows?
    a. From which countries?
    b. How many hours a week?______hrs/wk
2. Do you go on American/European/Canadian internet sites?
    a. From which countries?
    b. How many hours a week? ______hrs/wk
3. Do you read American/European/Canadian magazines?
    a. From which countries?
    b. How many hours a week? ______hrs/wk
4. Do you watch American/European/Canadian movies?
    a. From which countries?
    b. How many hours a week? ______hrs/wk
5. Do you watch American/European/Canadian music videos?
    a. From which countries?
    b. How many hours a week? ______hrs/wk
6. Do you watch fashion, healthy, and beauty advertisements/commercials from American/European/Canadian?
    a. From which countries?
    b. How many hours a week? ______hrs/wk

The Sociocultural Attitudes Towards Appearance Scale – 4 (SATAQ-4)

(Schaefer et al., 2015)

Please read each of the following items carefully and indicate the number that best reflects your agreement with the statement.

Definitely Disagree 1	Mostly Disagree 2	Neither Agree Nor Disagree 3	Mostly Agree 4	Definitely Agree 5

1. It is important for me to look athletic.

2. I think a lot about looking muscular.
3. I want my body to look very thin.
4. I want my body to look like it has little fat.
5. I think a lot about looking thin.
6. I spend a lot of time doing things to look more athletic.
7. I think a lot about looking athletic.
8. I want my body to look very lean.
9. I think a lot about having very little body fat.
10. I spend a lot of time doing things to look more muscular.

Answer the following questions with relevance to your FAMILY (include parents, brothers, sisters, relatives):

11. I feel pressure from family members to look thinner.
12. I feel pressure from family members to improve my appearance.
13. Family members encourage me to decrease my level of body fat.
14. Family members encourage me to get in better shape.

Answer the following questions with relevance to your PEERS (include close friends, classmates, and other social contacts):

15. My peers encourage me to get thinner.
16. I feel pressure from my peers to improve my appearance.
17. I feel pressure from my peers to look in better shape.
18. I get pressure from my peers to decrease my level of body fat.

Answer the following questions with relevance to the MEDIA (include television, magazine, the internet, movies, billboards, and advertisements):

19. I feel pressure from the media to look in better shape.
20. I feel pressure from the media to look thinner.
21. I feel pressure from the media to improve my appearance.
22. I feel pressure from the media to decrease my level of body fat.

Eating Disorder Examination Questionnaire (EDE-Q 6.0)

(Fairburn & Beglin, 2008)

Instructions: The following questions are concerned with the past four weeks (28 days) only. Please read each question carefully. Please answer all the questions. Thank you.

Questions 1 to 12: Please circle the appropriate number. Remember that the questions only refer to the past two weeks (14 days) only.

1. Have you been deliberately <u>trying</u> to limit the amount of food you eat to influence your shape or weight (whether or not you have succeeded?

No days	**1 day**	**2 days**	**3 days**	**4 days**	**5-6 days**	**Every day**
0	1	2	3	4	5	6

2. Have you gone for long periods of time (8 waking hours or more) without eating anything at all in order to influence your shape or weight?

No days	**1 day**	**2 days**	**3 days**	**4 days**	**5-6 days**	**Every day**
0	1	2	3	4	5	6

3. Have you tried to exclude from your diet any foods that you like in order to influence your shape or weight (whether or not you have succeeded)?

No days	**1 day**	**2 days**	**3 days**	**4 days**	**5-6 days**	**Every day**
0	1	2	3	4	5	6

4. Have you tried to follow definite rules regarding your eating (for example, a calorie limit(in order to influence your shape or weight (whether or not you have succeeded)?

No days	**1 day**	**2 days**	**3 days**	**4 days**	**5-6 days**	**Every day**
0	1	2	3	4	5	6

5. Have you had a definite desire to have an empty stomach with the aim of influencing your shape or weight?

No days	**1 day**	**2 days**	**3 days**	**4 days**	**5-6 days**	**Every day**
0	1	2	3	4	5	6

6. Have you had a definite desire to have a totally flat stomach?

No days	**1 day**	**2 days**	**3 days**	**4 days**	**5-6 days**	**Every day**
0	1	2	3	4	5	6

7. Has thinking about food, eating or calories made it very difficult to concentrate on things you are interested in (for example, working, following a conversation or reading)?

No days	**1 day**	**2 days**	**3 days**	**4 days**	**5-6 days**	**Every day**
0	1	2	3	4	5	6

8. Has thinking about shape or weight made it very difficult to concentrate on things you are interested in (for example, working, following a conversation or reading)?

No days	**1 day**	**2 days**	**3 days**	**4 days**	**5-6 days**	**Every day**
0	1	2	3	4	5	6

9. Have you had a definite fear of losing control over eating?

No days	**1 day**	**2 days**	**3 days**	**4 days**	**5-6 days**	**Every day**
0	1	2	3	4	5	6

10. Have you had a definite fear that you might gain weight?

No days	**1 day**	**2 days**	**3 days**	**4 days**	**5-6 days**	**Every day**
0	1	2	3	4	5	6

11. Have you felt fat?

No days	**1 day**	**2 days**	**3 days**	**4 days**	**5-6 days**	**Every day**
0	1	2	3	4	5	6

12. Have you had a strong desire to lose weight?

No days	1 day	2 days	3 days	4 days	5-6 days	Every day
0	1	2	3	4	5	6

Questions 13-18: Please fill in the appropriate number in the boxes. Remember that the questions only refer to the past two weeks (14 days).

Over the past two weeks (14 days) ....

13. Over the past 14 days, how many times have you eaten what other people would regard as an unusually large amount of food (given the circumstances)?

No days	1 day	2 days	3 days	4 days	5-6 days	Every day
0	1	2	3	4	5	6

14. On how many of these times did you have a sense of having lost control over your eating (at the time that you were eating)?

No days	1 day	2 days	3 days	4 days	5-6 days	Every day
0	1	2	3	4	5	6

15. Over the past 14 days, on how many **DAYS** have such episodes of overeating occurred (i.e., you have eaten an unusually large amount of food and have had a sense of loss of control at the time)?

No days	1 day	2 days	3 days	4 days	5-6 days	Every day
0	1	2	3	4	5	6

16. Over the past 14 days, how many times have you made yourself sick (vomit) as a means of controlling your shape or weight?

No days	1 day	2 days	3 days	4 days	5-6 days	Every day
0	1	2	3	4	5	6

17. Over the past 14 days, how many times have you taken laxatives as a means of controlling your shape or weight?

No days	1 day	2 days	3 days	4 days	5-6 days	Every day
0	1	2	3	4	5	6

18. Over the past 14 days, how many times have you exercised in a “driven” or “compulsive” way as a means of controlling your weight, shape or amount of fat, or to burn off calories?

No days	1 day	2 days	3 days	4 days	5-6 days	Every day
0	1	2	3	4	5	6

Questions 19 to 21: Please circle the appropriate number. Please note that for these questions the term “binge eating” means eating what others would regard as an unusually large amount of food for the circumstances, accompanied by a sense of having lost control over eating.

19. Over the past 14 days, on how many days have you eaten in secret (i.e., furtively)? ..... Do not count episodes of binge eating

No days	1 day	2 days	3 days	4 days	5-6 days	Every day
0	1	2	3	4	5	6

20. On what proportion of the times that you have eaten have you felt guilty (felt that you've done wrong) because of its effect on your shape or weight?

..... Do not count episodes of binge eating

No days	**1 day**	**2 days**	**3 days**	**4 days**	**5-6 days**	**Every day**
0	1	2	3	4	5	6

21. Over the past 14 days, how concerned have you been about other people seeing you eat? ..... Do not count episodes of binge eating

No days	**1 day**	**2 days**	**3 days**	**4 days**	**5-6 days**	**Every day**
0	1	2	3	4	5	6

Questions 22 to 28: Please circle the appropriate number on the right. Remember that the questions only refer to the past two weeks (14 days).

Over the past 14 days ....

22. Has your weight influenced how you think about (judge) yourself as a person?

Not at all		**Slightly**		**Moderately**		**Markedly**
0	1	2	3	4	5	6

23. Has your shape influenced how you think about (judge) yourself as a person?

Not at all		**Slightly**		**Moderately**		**Markedly**
0	1	2	3	4	5	6

24. How much would it have upset you if you had been asked to weigh yourself once a week (no more, or less, often) for the next two weeks?

Not at all		**Slightly**		**Moderately**		**Markedly**
0	1	2	3	4	5	6

25. How dissatisfied have you been with your weight?

Not at all		**Slightly**		**Moderately**		**Markedly**
0	1	2	3	4	5	6

26. How dissatisfied have you been with your shape?

Not at all		**Slightly**		**Moderately**		**Markedly**
0	1	2	3	4	5	6

27. How uncomfortable have you felt seeing your body (for example, seeing your shape in the mirror, in a shop window reflection, while undressing or taking a bath or shower)?

Not at all		**Slightly**		**Moderately**		**Markedly**
0	1	2	3	4	5	6

28. How uncomfortable have you felt about others seeing your shape or figure (for example, in communal changing rooms, when swimming, or wearing tight clothes?

Not at all		**Slightly**		**Moderately**		**Markedly**
0	1	2	3	4	5	6

Acceptance of Cosmetic Surgery

(Henderson-King & Henderson-King, 2005)

The following are statements about how people might think, feel, or behave regarding a woman's physical appearance. Please indicate the extent to which you agree with each statement. Using the scale below, indicate your answer by selecting your corresponding response.

1 Strongly disagree	2 Slightly Disagree	3 Disagree	4 Neither Disagree nor Agree	5 Agree	6 Slightly Agree	7 Strongly Agree

1. It makes sense to have minor cosmetic surgery rather than spending years feeling bad about the way you look.
2. Cosmetic surgery is a good thing because it can help people feel better about themselves.
3. In the future, I could end up having some kind of cosmetic surgery.
4. People who are very unhappy with their physical appearance should consider cosmetic surgery as one option.
5. If cosmetic surgery can make someone happier with the way they look, then they should try it.
6. If I could have a surgical procedure done for free, I would consider trying cosmetic surgery.
7. If I knew there would be no negative side effects or pain, I would like to try cosmetic surgery.
8. I have sometimes thought about having cosmetic surgery.
9. I would seriously consider having cosmetic surgery if my partner thought it was a good idea.
10. I would never have any kind of plastic surgery.
11. I would think about having cosmetic surgery to keep looking young.
12. If it would benefit my career, I would think about having cosmetic surgery.
13. I would seriously consider having cosmetic surgery if I though my partner would find me more attractive.
14. Cosmetic surgery can be a big benefit to people's self-image.
15. If a simple cosmetic surgery procedure would make me more attractive to others, I would think about trying it.

Body Shape Questionnaire (BSQ-8C)

(Cooper et al., 1987; Evans & Dolan, 1993)

We would like to know how you have been feeling about your appearance over the PAST FOUR WEEKS. Please read each question. Using the scale below, indicate your answer by selecting your corresponding response.

1 Never	2 Rarely	3 Sometimes	4 Often	5 Very Often	6 Always

OVER THE PAST FOUR WEEKS:

1. Have you been afraid that you might become fat (or fatter)?
2. Has feeling full (e.g., after eating a large meal) made you feel fat?

3. Has thinking about your shape interfered with your ability to concentrate (e.g., while watching television, reading, listening to conversations)?
4. Have you imagined cutting off fleshy areas of your body?
5. Have you felt excessively large and rounded?
6. Have you thought you are in the shape you are because you lack self-control?
7. Has seeing your reflection (e.g., in a mirror or shop window) made you feel bad about your shape?
8. Have you been particularly self-conscious about your shape when in the company of other people?

Weight Bias Internalization Scale- Modified (WBIS-M)

(Pearl & Puhl, 2014)

The following are statements about how people might think, feel, or behave regarding a woman's physical appearance. Please indicate the extent to which you agree with each statement. Using the scale below, indicate your answer by selecting your corresponding response.

1 Strongly disagree	2 Slightly Disagree	3 Disagree	4 Neither Disagree nor Agree	5 Agree	6 Slightly Agree	7 Strongly Agree

1. Because of my weight, I feel that I am just as competent as anyone.
2. I am less attractive than most other people because of my weight.
3. I feel anxious about my weight because of what people might think of me.
4. I wish I could drastically change my weight.
5. Whenever I think a lot about my weight, I feel depressed.
6. I hate myself for my weight.
7. My weight is a major way that I judge my value as a person.
8. I don't feel that I deserve to have a fulfilling social life, because of my weight.
9. I am OK being the weight I am.
10. Because of my weight, I don't feel like my true self.
11. Because of my weight, I don't understand how anyone attractive would want to date me.

Asian Perception-Modified

(Nadal, 2007)

Please read each item and choose a response that best represents you.

Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5

1. I believe that I look like my primary race/ethnicity.

2. I believe that others perceive me as my primary race/ethnicity.
3. I believe that my physical appearance matches what society typically views as my primary race/ethnicity.
4. When others look at me, they see my primary race/ethnicity.

Asian Values Scale-Revised (AVS-R)

(Kim & Hong, 2004)

Please indicate the extent to which you agree with each statement. Using the scale below, indicate your answer by selecting your corresponding response.

1	2	3	4
Strongly disagree	Moderately Disagree	Moderately Agree	Strongly Agree

1. One should not deviate from familial and social norms.
2. Children should not place their parents in retirement homes.
3. One need not focus all energies on one's studies.
4. One should be discouraged from talking about one's accomplishments.
5. Younger persons should be able to confront their elders.
6. When one receives a gift, one should reciprocate with a gift of equal or greater value.
7. One need not achieve academically in order to make one's parents proud.
8. One need not minimize or depreciate one's own achievements.
9. One should consider the needs of others before considering one's own needs.
10. Educational and career achievements need not be one's top priority.
11. One should think about one's group before oneself.
12. One should be able to question a person in authority.
13. Modesty is an important quality for a person.
14. One's achievements should be viewed as family's achievements.
15. One should avoid bringing displeasure to one's ancestors.
16. One should have sufficient inner resources to resolve emotional problems.
17. The worst thing one can do is to bring disgrace to one's family reputation.
18. One need not remain reserved and tranquil.
19. One should be humble and modest.
20. Family's reputation is not the primary social concern.
21. One need not be able to resolve psychological problems.
22. Occupational failure does not bring shame to the family.
23. One need not follow the role expectations (gender, family hierarchy) of one's family.
24. One should not make waves.
25. One need not control one's expression of emotions.

Ethnic-Racial Identity

(Wilson & Leaper, 2016)

Please indicate the extent to which you agree with each statement within the context of the ethnic-racial group that you most identify with. Using the scale below, indicate your answer by selecting your corresponding response.

Disagree Strongly	Disagree	Neutral	Agree	Agree Strongly
1	2	3	4	5

1. I feel like I'm just like all the other members of my ethnic group.
2. I have a lot in common with other members of my ethnic group
3. I feel that the things I like to do in my spare time are similar to what most members of my ethnic group are good at.
4. I think that I am a good example of what it means to be a member of my ethnic group.
5. I feel that the things I like to do in my spare time are similar to what most members of my ethnic group are good at.
6. I don't feel that my personality is similar to most members of my ethnic group's personalities.
7. The people of my ethnic group I know would be upset if I wanted to do things people outside of my ethnic group usually do.
8. I get really mad if someone says I'm acting like a person outside of my ethnic group.
9. I think other members of my ethnic group would be upset if I told them I was interested in things that people outside of my ethnic group usually like.
10. I think the people of my ethnic group I know would mind if I showed interests in hobbies that are mostly for people outside of my ethnic group.
11. I don't think other people of my ethnic group would be upset if I wanted to learn an activity that only people outside of my ethnic group usually do.
12. I think my parents would be upset if I wanted to learn an activity that only people outside of my ethnic group usually do.
13. I don't think my parents would be upset if I told them I was interested in things that people outside of my ethnic group usually like.
14. I don't think my parents would mind if I showed interests in hobbies that are mostly of people outside of my ethnic group.
15. I don't feel I fit in with other members of my ethnic group.
16. I feel strong ties to other members of my ethnic group.
17. I find it difficult to form a bond with other members of my ethnic group.
18. I don't feel a sense of being "connected" with other members of my ethnic group.
19. In general, I'm glad to be a member of my ethnic group.
20. Generally, I feel good when I think about myself as a member of my ethnic group.
21. I often regret that I am a member of my ethnic group.

22. I don't feel good about being a member of my ethnic group.
23. I often think about the fact that I am a member of my ethnic group.
24. In general, being a member of my ethnic group is an important part of my self-image.
25. Overall, being a member of my ethnic group has very little to do with how I feel about myself.
26. The fact that I am a member of my ethnic group rarely enters my mind.

Perceptions of Ethnic-Racial Identity

When responding to the following items, "racial/ethnic group" refers to your primary racial/ethnic group that you identify with. Using the scale below, indicate your answer by selecting your corresponding response.

Disagree Strongly	Disagree	Neutral	Agree	Agree Strongly
1	2	3	4	5

1. It is important to me that I look like other members of my racial/ethnic group.
2. It is important to me that I share the same beliefs as other members of my racial/ethnic group.
3. I think that I look like a member of my primary racial/ethnic group.
4. I share the same beliefs as other members of my racial/ethnic group.
5. Other members of my racial/ethnic group think I look like them.
6. People outside my racial/ethnic group often mistake me for a racial/ethnic identity that is not my own.

Multiracial Identity Integration Scale-Modified

(Cheng & Lee, 2009)

Completely Disagree	Slightly Disagree	Neither Disagree nor Agree	Slightly Agree	Completely Agree
1	2	3	4	5

1. My racial/ethnic identity is best described by a blend of all the racial/ethnic groups to which I belong.*
2. I keep everything about my different racial/ethnic identities separate.
3. I am a person with a multiracial/multiethnic identity.*
4. In any given context, I am best described by a single racial/ethnic identity.
5. I am conflicted between my different racial/ethnic identities.
6. I feel like someone moving between the different racial/ethnic identities.
7. I feel torn between my different racial/ethnic identities.

Depression Anxiety Stress Scales (DASS-21)

(Lovibond & Lovibond, 1995)

Please read each statement and choose a number 0, 1, 2 or 3 that indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 Did not apply to me at all

1 Applied to me to some degree, or some of the time

2 Applied to me to a considerable degree, or a good part of time

3 Applied to me very much, or most of the time

1. 1 found it hard to wind down.
2. I was aware of dryness of my mouth
3. I couldn't seem to experience any positive feeling at all
4. I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion
5. I found it difficult to work up the initiative to do things
6. I tended to over-react to situations
7. I experienced trembling (e.g., in the hands)
8. I felt that I was using a lot of nervous energy
9. I was worried about situations in which I might panic and make a fool of myself
10. I felt that I had nothing to look forward to
11. I found myself getting agitated
12. I found it difficult to relax
13. I felt down-hearted and blue
14. I was intolerant of anything that kept me from getting on with what I was doing
15. I felt I was close to panic
16. I was unable to become enthusiastic about anything
17. I felt I wasn't worth much as a person
18. I felt that I was rather touchy
19. I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat)
20. I felt scared without any good reason
21. I felt that life was meaningless

APPENDIX D. TRANSLATION PROCESS

1. Translator A translated selected measures into Korean.
2. Translator B back translated measures into English.
3. To maintain fidelity, translations and backtranslations were conducted separately.
4. After all translations were completed, researcher reviewed items for discrepancies.
5. Through Zoom meetings, both translators met with researcher to discuss and resolve discrepancies between items.
    a. Each translator was provided original English measures, Korean translated measures, and back translated measures and were asked to identify any discrepancies.
6. Collectively, translated items that best represented original items conceptually and contextually were chosen as final items.
    a. Some item discrepancies were easily resolved, such as clarifying certain constructs (e.g., “not making waves” on the Asian Values Scale).
    b. However, other item discrepancies were more complex due to lacking English verb or adjective equivalents. For example, there are not as many nuances in the Korean language as there is in English, such that hope was translated as “want” or “wish” depending on the context of the statement.

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