



Virginia Commonwealth University  
VCU Scholars Compass

---

Theses and Dissertations

Graduate School

---

2017

## Sustainable Adapted Treatments for Eating Disorders: The Role of Cultural Adaptation in Prevention

Sarah J. Javier  
*Virginia Commonwealth University*

Follow this and additional works at: <https://scholarscompass.vcu.edu/etd>

 Part of the [Health Psychology Commons](#), [Health Services Research Commons](#), and the [Women's Health Commons](#)

© Sarah J. Javier

---

Downloaded from

<https://scholarscompass.vcu.edu/etd/4850>

This Dissertation is brought to you for free and open access by the Graduate School at VCU Scholars Compass. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of VCU Scholars Compass. For more information, please contact [libcompass@vcu.edu](mailto:libcompass@vcu.edu).

© Sarah J. Javier 2017

All Rights Reserved

SUSTAINABLE ADAPTED TREATMENTS FOR EATING DISORDERS:  
THE ROLE OF CULTURAL ADAPTATION IN PREVENTION

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of  
Philosophy at Virginia Commonwealth University.

BY: SARAH JANE JAVIER  
Bachelor of Science in Psychology, Tulane University, 2010  
Master of Science in Psychology, Virginia Commonwealth University, 2013

Director: Faye Z. Belgrave  
Professor of Psychology  
Department of Psychology

Virginia Commonwealth University  
Richmond, Virginia  
April 2017

## **Acknowledgements**

My deepest gratitude goes first to my graduate advisor, Dr. Faye Belgrave, who has not only guided me through the past 6 years of graduate school, but has also kept me focused on the bigger picture. Your unwavering support not only in my academic and professional endeavors, but also in my personal growth, is something I will be eternally grateful for.

Thank you to my dissertation committee, including Drs. Sarah Jane Brubaker, Rosalie Corona, Robin Everhart, and Suzanne Mazzeo, for the time and effort you have taken out to help improve this project. Your input and guidance have been invaluable.

Thank you to my funding agency, the Agency for Healthcare Research and Quality, for believing in my work when other agencies saw it as a lost cause. This research was funded via an AHRQ R36 Dissertation Grant (AHRQ-1-R36-HS023731-01-A1).

Thank you to my team at the Center for Cultural Experiences in Prevention for working tirelessly to help me get these focus groups transcribed, notes written, and observation and analyses done. Special thanks go to Imani White, Shivani Patel, Tiffani Robinson, Azza Hussein, Deborah Butler, and Melanie Moore.

I am so grateful for my husband, Austin, for being my biggest supporter throughout this crazy process. You have been my pillar of emotional and moral support and have never stopped encouraging me to reach for the stars. Thank you also to my mother and father, who have guided me through life and have always believed in me.

Although you'll never be able to read this, special thanks goes to a little pug who kept my feet warm during hours of writing and analysis. You have been the best companion throughout grad school.

And finally, last but not least, thank you to all the women who shared their lives and experiences with me during this project. You are the reason why I do this.

## Table of Contents

	Page
Acknowledgements . . . . .	ii
List of Tables . . . . .	vi
List of Figures . . . . .	vii
Abstract . . . . .	viii
Introduction . . . . .	1
Review of the Literature . . . . .	5
Eating Disorders . . . . .	5
Anorexia nervosa . . . . .	6
Bulimia nervosa . . . . .	6
Binge eating disorder . . . . .	7
Body Dissatisfaction . . . . .	8
Ethnic Minority Women and Eating Disorders . . . . .	9
African American women . . . . .	9
Asian American women . . . . .	12
Treatment Utilization . . . . .	15
Provider bias . . . . .	16
Diagnostic instruments . . . . .	18
Patient bias . . . . .	19
Disclaimer on the Nature of Mental Illness in the U.S. . . . .	21
The Body Project . . . . .	22
Theoretical Frameworks . . . . .	22
Dual Pathway Model of Eating Pathology . . . . .	23
Cognitive Dissonance Theory . . . . .	24
Deep-Structure Cultural Adaptation . . . . .	25
Purpose of the Study . . . . .	28
Research Questions . . . . .	29
Overview of Methods . . . . .	30

Recruitment and Informed Consent . . . . .	31
Pre-Screen Process . . . . .	32
Study 1: Focus Groups . . . . .	33
Method . . . . .	33
Grounded Theory . . . . .	33
Participants . . . . .	34
Data Collection Procedure . . . . .	35
Focus Group Questions . . . . .	35
Data Analytic Procedure . . . . .	37
Results . . . . .	39
Asian American Groups . . . . .	39
Dichotomy of American vs. Asian Cultures . . . . .	41
Interpersonal Influence . . . . .	43
Interpretation of Messages . . . . .	47
Disordered Behaviors or Adaptation . . . . .	48
Treatment Endorsement or Alternate Solutions . . . . .	50
African American Groups . . . . .	55
Black Culture . . . . .	57
Predominant White Culture . . . . .	60
Expectations for Black Women . . . . .	63
Interpretation of Messages . . . . .	66
Disordered Behaviors or Adaptation . . . . .	68
Treatment-Seeking . . . . .	71
Summary of Study 1 . . . . .	74
Development of Cultural Pre-Treatment . . . . .	74
Process . . . . .	75
Pre-Treatment Protocol for Asian American groups . . . . .	76
Pre-Treatment Protocol for African American groups . . . . .	77
Study 2: Pilot Intervention . . . . .	82
Method . . . . .	82
Research Design . . . . .	82
Facilitators . . . . .	84
Measures . . . . .	86
Procedure . . . . .	89
Data Analysis . . . . .	91
Results . . . . .	91
Sample and Setting . . . . .	91
Evaluation of Objective 1 . . . . .	94
Evaluation of Objective 2 . . . . .	96
Evaluation of Objective 3 . . . . .	96
Evaluation of Objective 4 . . . . .	97

Evaluation of Objective 5 .....	101
Discussion .....	108
Study 1 .....	108
Pre-Treatment .....	115
Study 2 .....	116
Implications .....	125
Limitations and Lessons Learned .....	127
Conclusion .....	133
List of References .....	134
Appendix A: List of Activities from the Body Project .....	149
Appendix B: E-mail Script for Initial Participant Contact .....	150
Appendix C: Manualized Pre-Treatments .....	152
Vita .....	162

### **List of Tables**

	Page
Table 1. Random Assignment of Groups . . . . .	83
Table 2. Participant Demographics for the Pilot Intervention . . . . .	93
Table 3. Preliminary Intervention Outcomes . . . . .	99



## **List of Figures**

	<b>Page</b>
Figure 1. Theoretical components of the Dual Pathway Model .....	23
Figure 2. Project Flow Chart .....	31
Figure 3. Asian American Body Image Evolutionary Model .....	40
Figure 4. African American Body Image Evolutionary Model .....	56
Figure 5. Asian American Pre-Treatment Protocol .....	76
Figure 6. African American Pre-Treatment Protocol .....	77

## Abstract

### SUSTAINABLE ADAPTED TREATMENTS FOR EATING DISORDERS: THE ROLE OF CULTURAL ADAPTATION IN PREVENTION

By Sarah J. Javier, M.S.

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at Virginia Commonwealth University.

Virginia Commonwealth University, 2017

Major Director: Faye Z. Belgrave, Professor of Psychology

Despite demonstrating eating disorder rates equivalent to White women, African American and Asian American women are less likely to seek treatment and are more likely to terminate treatment prematurely. One of the most successful programs for eating disorder prevention has only focused on surface-level cultural adaptations. Prevention literature maintains that deep-structure cultural adaptation (e.g., integrating cultural values and beliefs) can enhance outcomes for ethnic minorities. This dissertation examined the feasibility of *Sustainable Adapted Treatments for Eating Disorders* (SATED), a pilot intervention that included a culturally-targeted pre-treatment to an eating disorder dissonance-based intervention. A sample of 72

women (ages 18-30) were recruited via the SONA pool, student organizations, and community organizations. In Study 1, 47 women participated in focus groups (i.e., 21 African American women and 26 Asian American women). Grounded theory was used to analyze data, and this data was then used to develop a culturally-informed pre-treatment. Pre-treatment protocols (30-45 minutes) were developed for both African American and Asian American groups and were refined prior to implementing the intervention. In Study 2, a pilot intervention, 25 women were assigned either to a pre-treatment condition, or 30-45 minute, individualized session ( $N = 12$ ) or a no pre-treatment condition ( $N = 13$ ) prior to completing an eating disorder DBI which took place over two 2-hour sessions. Participants completed a battery of questionnaires at baseline, post-intervention, and at 2 to 3-month follow-up. Constructs assessed included eating disorder symptomatology, attitudes towards seeking professional psychological help, and body dissatisfaction. Overall feasibility and acceptability of the pre-treatment and pilot intervention were assessed via triangulation of methods including third-party observations, in-depth interviews, and fidelity checks. Preliminary findings from the questionnaires indicated that there was a general downward trend for eating pathology across both the pre-treatment and no pre-treatment condition, except for eating restraint. Body dissatisfaction decreased for both groups from baseline to post-test, but increased at follow-up. Attitudes towards treatment-seeking increased for both groups from baseline to follow-up. Results may inform feasibility issues that accompany translational research with ethnic minorities and inform a future definitive trial.

*Keywords:* African American, Asian American, eating disorder, treatment-seeking

## Sustainable Adapted Treatments for Eating Disorders: The Role of Cultural Adaptation in Prevention

Adult females account for nearly 25% of diagnosed cases of all mental illnesses in the United States, and a greater percentage of females (4.9%) than males (3.5%) are likely to be diagnosed with a serious mental illness<sup>1</sup> (Substance Abuse and Mental Health Services Administration; SAMHSA, 2014). One type of mental illness that disproportionately affects females is eating disorders, complex, eating-related psychiatric illnesses that develop as a result of a combination of biological, psychological, genetic, and social factors (National Institute of Mental Health, 2014). Females are two to three times as likely as males to be diagnosed with eating disorders including anorexia nervosa (AN), bulimia nervosa (BN), and binge eating disorder (BED), and have greater lifetime prevalence of bulimia nervosa (0.5% compared with 0.1%), binge eating disorder (3.5% compared with 2.0%), and anorexia nervosa (0.9% compared with 0.3%) (Hudson, Hiripi, Pope, & Kessler, 2007). Striegel-Moore et al. (2009) indicated that these symptoms can be acute, and found that females exhibited greater rates of disordered eating symptoms over the past three months compared to males, including loss of control over eating, binge eating, vomiting, and fasting.

---

<sup>1</sup> *Serious mental illness* (definition from the *National Survey on Drug Use and Health, 2013*; Substance Abuse and Mental Health Administration, 2014): A mental, behavioral, or emotional disorder (Excluding developmental and substance use disorders) which results in serious functional impairment, which interferes substantially with one or more major life activities.

Over 20 million women in the United States have clinically diagnosable eating disorders ranging from the disorders mentioned previously to eating disorders not otherwise specified (EDNOS; Wade, Keski-Rahkonen, & Hudson, 2011). Typically, eating disorder onset occurs in emerging adulthood (Stice, Marti, & Rohde, 2013a). However, nearly 60% of girls ages 6-12 report symptoms of disordered eating such as weight concern or fear about becoming fat (Smolak, 2011). These symptoms may continue into adolescence, with individuals engaging in behaviors such as fasting and cigarette smoking to control or maintain weight (Eaton et al., 2012; Hoek & van Hoeken, 2003).

Although literature prior to the mid-2000s suggested that ethnic minority women are less likely to present and to be diagnosed with eating disorders and body image problems than White women (Root, 1990; Striegel-Moore et al., 2003), an increasing number of studies have found contrary evidence. Ethnic minority women present with some disorders at rates similar to, or higher than, majority-White samples (Grabe & Hyde, 2006; Marques et al., 2011; Stice, Marti, & Cheng, 2014). For example, African American women exhibited rates of disordered eating symptoms such as binge eating, equivalent to White women across studies in which demographics such as age and parental education were controlled (Stice et al., 2014). Asian American women also report eating disorders, including anorexia nervosa and bulimia nervosa, at rates comparable to White women (Grabe & Hyde, 2006; Marques et al., 2011). In some cases, Asian Americans exceed the lifetime prevalence rates for some disorders when compared with White women (Lee-Winn, Mendelson, & Mojtabai, 2014). Given these findings, treatment for eating disorders should be uniform across ethnic groups, with similar rates of White, African American, and Asian American women being diagnosed, treated, and retained in eating disorder

programs. However, this is *not* the case. Sociocultural influences and pre-existing biases among treatment providers concerning the psychological profile of eating disorder patients might interfere with treatment-seeking motivations of ethnic minority women.

The purpose of this dissertation is to examine the feasibility of a cultural adaptation of an extant eating disorder prevention program among African American and Asian American women. In recent years, public health impact and treatment reach has been the focus of national agencies funding social science research, including the National Institute of Mental Health (National Institute of Mental Health, 2015). As a result of this movement, the concept of cultural adaptation of mental health treatment has been replaced by more general, “one-size-fits-all” treatment programs that are touted as efficacious across different populations. However, culture can have a significant effect on treatment-seeking motivations among ethnic minority individuals. Patients who reported receiving culturally-responsive mental health care also reported increased care utilization, better treatment retention, and higher overall satisfaction with their program of care than individuals who did not receive culturally responsive care (Meyer & Zane, 2013; Rathod, Kingdon, Phiri, & Gobbi, 2010). Additionally, health messages might be processed differently by ethnic minority individuals than White individuals. Health beliefs can also vary across cultures, and socialization practices might foster different responses to treatment (Pérez-Stable, Marin, & Posner, 1998). Thus, ethnic minority individuals might respond more favorably to treatments attuned to cultural nuances than more generalized programs of care. African American and Asian American women at risk for eating disorders might be particularly receptive to culturally-adapted messages about eating and body image, as programs conducted with these populations have found higher treatment-seeking motivations when a cultural

component is included (Belgrave, Reed, Plybon, & Corneille, 2004; Jackson-Gilfort, Liddle, Tejada, & Dakof, 2001; Kim & Omizo, 2003; Nguyen, Belgrave, & Sholley, 2011).

This dissertation reviews the literature investigating eating disorders among ethnic minority women, treatment-seeking motivations, and eating disorder prevention. The first section gives an overview on the state of eating disorders among women in the United States, including prevalence across different types of disorders, and definitions of different types of eating disorders. Following this section, eating disorders and disordered eating behaviors among ethnic minority women are addressed, focusing specifically on African American and Asian American women. Concepts relevant to these groups (e.g., acculturation, body image, body dissatisfaction, stress, and other sociocultural mechanisms) are discussed. The next section transitions into the literature around mental health treatment-seeking and culturally-targeted mental health care. This section includes treatment-seeking motivations for ethnic minority individuals, retention of ethnic minorities in treatment, and a discussion of provider and patient biases in diagnosis and referral. The literature review concludes with an exploration of an existing eating disorder prevention program that has enrolled significant numbers of ethnic minority women (“The Body Project,” Stice, Rohde, & Shaw, 2013b). The theoretical frameworks for the Body Project, including the Dual Pathway Model of eating pathology and Cognitive Dissonance Theory are discussed. Finally, I review the theoretical framework utilized for the cultural targeting piece: the theory of Deep-Structure Cultural Adaptation (Okamoto, Kulis, Marsiglia, Holleran Steiker, & Dustman, 2014). Using this framework, I discuss the development of a culturally-targeted pre-treatment prior to implementation of the Body Project. The final section addresses the feasibility

of the pre-treatment and implementation of the pilot intervention among African American and Asian American women.

## **Review of the Literature**

### **Eating Disorders**

Eating disorders are psychiatric illnesses that appear to be caused by an intricate and complex combination of biological, psychological, social, and genetic factors (National Institute of Mental Health, 2015). Approximately 10% of women in the United States are currently diagnosed with a threshold or subthreshold eating disorder (i.e., they fit the diagnostic criteria for either a full-fledged eating disorder or criteria that place them at greater risk for developing a disorder), and diagnoses can emerge as young as age 8 (Stice et al., 2013b). According to the *Diagnostic and Statistical Manual of Mental Disorders* (5<sup>th</sup> ed.; *DSM-5*; American Psychiatric Association, 2013), eating disorders may be characterized by an irrational fear of normal body weight, drive for thinness, and distortions of body image (Yager & Andersen, 2005). There are three diagnosable types of eating disorders currently in the DSM-V: anorexia nervosa, bulimia nervosa, and binge eating disorder (American Psychiatric Association, 2013); however, the classifications of “Other Specified Feeding and Eating Disorder” (OSFED) and “Unspecified Feeding and Eating Disorder” still remain for diagnoses that do not fit within the criteria of the aforementioned disorders (American Psychiatric Association, 2013). Although placed under the umbrella characterization of “eating disorders,” anorexia nervosa, bulimia nervosa, and binge eating disorder are characterized by different symptoms and may at their root, have very different motivations.



**Anorexia nervosa.** The central diagnosable symptom of anorexia nervosa is emaciation, or extreme thinness, usually brought about by distortions in body image and excessive dieting which may lead to severe weight loss (American Psychiatric Association, 2013). Anorexia nervosa can result in health consequences such as osteopenia or osteoporosis, brittle hair and nails, dry and yellow skin (hypercarotenemia), fine hair growth all over the body (lanugo), anemia, constipation, low blood pressure, brain damage, loss of heart function, lethargy, multiorgan failure, drop in internal body temperature, and even infertility (National Institute of Mental Health, 2015; Stice et al., 2013b). Given an increased risk of heart, organ, and brain damage, anorexia nervosa also has the highest mortality rate of all diagnosable psychiatric illnesses, with sudden cardiac arrest, medical complications, and suicide accounting for 60% of anorexia-related deaths (Arcelus, Mitchell, Wales, & Nielsen, 2011; Mehler & Krantz, 2003; Nielsen, 2001). Overall, there is a low average prevalence of threshold-level and subthreshold – level anorexia nervosa among young females (ranging anywhere from 0.3% to 4.0% across different large scale studies; Crow et al., 2009; Hoek, 2006; Stice et al., 2013b). However, there are little to no national data on undiagnosed cases of anorexia, and only about 1/3 of people who meet the diagnostic criteria for this disorder are treated in mental health care (Hoek, 2006).

**Bulimia nervosa.** Bulimia nervosa is best characterized by episodes of “bingeing,” or consuming large quantities of food, and “purging,” or self-induced vomiting or other compensatory behaviors (e.g., use of laxatives and diuretics, excessive exercise) used to avoid weight gain (American Psychiatric Association, 2013). Current DSM-V criteria for bulimia nervosa state that an individual must exhibit this cyclic bingeing and purging behavior at least once a week over an extended period of time (American Psychiatric Association, 2013).

Although there is a lower prevalence of mortality associated with bulimia nervosa compared with anorexia nervosa, electrolyte imbalance may lead to increased risk of heart attack among individuals with this disorder (National Institute of Mental Health, 2015). In addition, individuals with bulimia nervosa may have symptoms such as chronically inflamed or sore throat, swollen salivary glands in the neck and jaw, worn tooth enamel and related tooth decay, acid reflux or other gastrointestinal problems, irritation in the rectum from laxative abuse, and severe dehydration from purging (National Institute of Mental Health, 2015). Prevalence of bulimia nervosa is low, similar to anorexia nervosa, at approximately 1 to 3.9% for threshold-level bulimia (Crow et al., 2009; Hoek, 2006) and 4.4% for subthreshold-level bulimia (Stice et al., 2013b). However, treatment rates of individuals diagnosed with the disorder are even lower at approximately 6% (Hoek, 2006).

**Binge eating disorder.** Formerly classified under the term EDNOS, binge eating disorder is similar to bulimia nervosa in that binge eating is the major characterizing component and occurs, on average, at least once a week over a 3-month period (American Psychiatric Association, 2013). However, individuals with binge eating disorder do not tend to engage in compensatory behaviors after bingeing (National Institute of Mental Health, 2015). As a result, individuals with binge eating disorder may be overweight or obese. As a result of being overweight or obese, individuals with binge eating disorder are at higher risk for obesity-related conditions such as cardiovascular disease, diabetes type 2, and high blood pressure (National Institute of Mental Health, 2015). In addition, individuals with binge eating disorder may experience psychological complications such as guilt, shame, and distress, which may result in a cyclical coping mechanism of more binge eating (National Institute of Mental Health, 2015).

Among the general population, there is a 1.1-1.9% prevalence of binge eating disorder at threshold-level (Agh et al., 2015), and 3.6% for subthreshold-level binge eating disorder (Stice et al., 2013b).

### **Body Dissatisfaction**

Approximately half of all U.S. women express some degree of body dissatisfaction (Bearman, Martinez, Stice, & Presnell, 2006). Body dissatisfaction can present as early as childhood, with girls as young as age 6 expressing dissatisfaction with their weight and shape (Smolak, 2011). Body dissatisfaction, or dissatisfaction with some aspect of one's body or appearance (e.g., dissatisfaction with facial features, weight or shape (Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999), is a robust risk factor for eating pathology onset among young women. Measures of body dissatisfaction are correlated with increased levels of disordered eating behaviors such as fasting, restrictive eating, and excessive exercise (Davis, Kennedy, Ravelski, & Dionne, 1994; Shisslak et al., 1998; Stice, Cameron, Killen, Hayward, & Taylor, 1999; Stice, Davis, Miller, & Marti, 2008). Prospective studies conducted among adolescent girls found that increases in body dissatisfaction during early adolescence were associated with increased eating pathology (Slane, Klump, McGue, & Iacono, 2014). This trajectory seems particularly robust for the onset of bulimic symptoms and bulimia-related pathology among adolescent girls (Johnson & Wardle, 2005; Roberts, Deleger, Strawbridge, & Kaplan, 2003; McKnight Investigators, 2003). The relation between body dissatisfaction and eating pathology onset provides part of the rationale for the Dual Pathway Model of eating disorders, one of the theoretical foundations of the cognitive dissonance intervention used in this study.

## **Ethnic Minority Women and Eating Disorders**

Historically, White females were considered the population with the highest prevalence of eating disorders (Wonderlich, Joiner, Keel, Williamson, & Crosby, 2007). Indeed, several diagnostic tools for eating disorders were developed primarily using European American female samples (Fairburn & Beglin, 1994; Garner & Garfinkel, 1979; Garner, Olmstead, & Polivy, 1983), and eating disorder diagnostic criteria according to the DSM-V do not take intercultural differences into account (American Psychiatric Association, 2013). However, an increasing number of studies have begun to focus on eating disorders and disordered eating behaviors among ethnic minority individuals. For instance, a study utilizing pooled data from the National Institute of Mental Health - Collaborative Psychiatric Epidemiological Studies section concluded that ethnic minority women might be at equally high, or higher risk for the onset of eating disorders (Marques et al., 2011). Ethnic minority women, including African American, Asian American, and Latina women, manifest eating disorders at rates equivalent to White women (Grabe & Hyde, 2006; Marques et al., 2011). The focus of this dissertation is African American and Asian American women, although further research on eating disorders among Latinas is a point of future research.

**African American women.** Individuals who identify as African American are denoted by the U.S. Census as being “People having origins in any of the black racial groups of Africa” (Rastogi, Johnson, Hoeffel, & Drewery, 2011) and can include any individual who identifies as Black, African American, Sub-Saharan African, or Afro-Caribbean (Rastogi et al., 2011). Historically, African American women have reported higher levels of body satisfaction than other ethnic groups (De Braganza & Hausenblas, 2010; Roberts, Cash, Feingold, & Johnson,

2006). However, these conclusions have been tempered by the fact that, similar to eating disorder diagnoses, body image has been generalized to capture Western ideals. For instance, Roberts and colleagues (2006) reported that current measures of body dissatisfaction might not capture race-specific definitions of body image such as satisfaction with hair and facial features. When taking these differences into account, African American women have reported similar or higher rates of body dissatisfaction as other ethnic groups (Shuttlesworth & Zotter, 2011).

The constructs of body satisfaction and body appreciation (i.e., proactively accepting one's appearance and body shape despite seeing flaws (Avalos, Tylka, & Wood-Barcalow, 2005) have been negatively associated with higher body mass indices (BMIs) among African American women (Cotter, Kelly, Mitchell, & Mazzeo, 2015). A study found that African American older-adolescent females (i.e., about to enter college) with higher BMIs reported both higher body dissatisfaction and lower body appreciation than females who reported lower BMIs (Webb, Butler-Ajibade, & Robinson, 2014). These findings suggest that heavier African American females might be more at risk for negative body image.

Evidence that African American women suffer from eating disorders is apparent throughout the literature, and is especially evident for binge eating disorder, which has been associated with individuals reporting higher-than-average BMIs (National Institute of Mental Health, 2015). For instance, across community samples of African American women, the prevalence of both subthreshold and threshold binge eating disorder ranges from 1.4% to as high as 30% (Mama et al., 2015; Striegel-Moore, Pike, Wilfley, Dohm, & Fairburn, 2000; Striegel-Moore et al., 2003). Despite these high estimates of binge eating disorder prevalence, African American women are less likely to seek treatment for eating disorders and are more likely than

White women to drop out of treatment after beginning a program (Cachelin, Veisel, Striegel-Moore, & Barzegarnazari, 2000; Pike, Dohm, Striegel-Moore, Wilfley, & Fairburn, 2001; Shuttlesworth & Zotter, 2011; Thompson-Brenner et al., 2013). Disparities also extend to referral and diagnosis, with African American women referred for eating disorder treatment at lower rates than White women, even when exhibiting clinically significant levels of disordered eating behaviors (Gordon, Brattole, Wingate, & Joiner, 2006; Pike et al., 2001).

According to the DSM-V, binge eating disorder may be motivated primarily by feelings of guilt and shame, as well as distress about binge eating behaviors (American Psychiatric Association, 2013). However, African American women might experience specific psychological stressors that motivate them to engage in binge eating behaviors. For example, a study by Adamus-Leach et al. (2013) found that clinically-significant levels of depression were associated with severity of binge eating symptoms among a minority sample of women (African American  $N = 127$ , Hispanic or Latina  $N = 44$ ). Motivations for disordered eating among African American women may even go so far as being systemic in nature, as extant research has indicated that African Americans may engage in binge eating partially to cope with experiences of race-related stress and discrimination (Talleyrand, 2006). Additionally, acculturative stress (i.e., the process of unifying one culture with another; Berry, 1998) has been associated with an exacerbation of bulimic symptoms above and beyond general life stress among African American adult women (Kroon Van Diest, Tartakovsky, Stachon, Pettit, & Perez, 2014). This finding suggests that African American women who find it difficult to unite African American cultural ideals with that of the dominant White U.S. culture will be at higher risk of developing bulimic eating behaviors.

Despite a growing interest in motivations behind disordered eating behaviors among African American women, wide variation in study features (e.g., demographic differences in age, socioeconomic status) indicate that there is further need to address motivations for disordered eating among this group. In addition, the majority of studies examining motivations for disordered eating among African American women have focused solely on binge eating disorder. Although there tends to be low prevalence of other eating disorders (i.e., anorexia nervosa, bulimia nervosa) among African American women (Marques et al., 2011; Striegel-Moore et al., 2003), current models of diagnosis may not touch on the true prevalence of women who have these disorders.

**Asian American women.** According to the U.S. Census, Asian Americans encompass any individual with origins from the “Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam” (Hoeffel, Rastogi, Kim, & Shahid, 2012). Similar to African American or Black women, Asian American women encompass a wide variety of cultural backgrounds, and the origins of disordered eating pathologies among these women may not be uniform across sub-populations of these women. For the purposes of review, some suggested determinants of eating disorders are explored, but this does not suggest that determinants do not vary from culture to culture or individual to individual.

Asian women report levels of body dissatisfaction at rates equivalent to White women (Cummins & Lehman, 2007; Shaw, Ramirez, Trost, Randall, & Stice, 2004), although dissatisfaction may be specific to cultural features such as breast size and face (Forbes & Frederick, 2008). Although Eastern Asian females constitute the bulk of Asian samples

throughout the body dissatisfaction literature, Yates, Edman, and Aruguete (2004) found no differences in body dissatisfaction across South Asian and Eastern Asian subgroups in Hawaii. Further, some studies conducted among South Asian individuals in Britain have indicated that women of Indian and Hindi descent have elevated levels of body dissatisfaction (Swami, Airs, Chouhan, Leon, & Towell, 2009). Findings from my thesis research indicated that Asian American college students' body dissatisfaction is correlated with peer attitudes towards weight and shape, media attitudes towards weight and shape, and thin-ideal internalization (Javier & Belgrave, 2015). These factors may be interrelated and lead to the onset of disordered eating behaviors, according to the Dual Pathway Model utilized in the current study (See Theoretical Frameworks).

Prevalence of eating disorders among Asian American women varies, with some studies contending that Asian American women have lower rates of eating disorders than White women (Regan & Cachelin, 2006; Tsai & Gray, 2000), and others suggesting that rates of eating disorders are equivalent or higher for Asian Americans (Franko, Becker, Thomas, & Herzog, 2007; Wildes, Emery, & Simons, 2001). Several studies have suggested that current conceptualizations of eating disorders might not apply to Asian Americans. Thus, individuals with these disorders might have symptomatology that does not fit the Westernized definitions (Cummins, Simmons, & Zane, 2005; Wildes et al., 2001). Despite conflicting findings, there is some evidence that eating pathology is a significant problem in this population. For instance, in a meta-analysis conducted across U.S. and non-U.S. samples by Wildes et al. (2001), women of Asian ancestry exhibited higher levels of eating pathology for behaviors such as weight and dieting concerns, dietary restraint, body dissatisfaction, smaller ideal body, and lower reported



weight than White women. Asian Americans also have the lowest rate of treatment-seeking for eating disorders than other ethnic minority groups (Abbas et al., 2010), as well as low rates of treatment-seeking across all psychiatric conditions (Alegría et al., 2008; Meyer, Zane, Cho, & Takeuchi, 2009).

Asian American women may be motivated to engage in disordered eating behaviors by specific biological, psychological, and social factors. One factor that plays a role in the onset of eating pathology among Asian Americans is acculturation (Gordon, Perez, & Joiner, 2002).

Among Asian American women who are not native U.S. citizens, eating disorders may be a coping mechanism in response to rapid cultural changes and conflicting messages about body image from the dominant U.S. culture and the native Asian culture (Gordon et al., 2002).

Further, Asian American women who are especially vulnerable to endorsing cultural expectations of beauty might be motivated to engage in disordered eating behaviors when their perceived appearance does not match up to societal messages about appearance (Gordon et al., 2002; Yokoyama, 2007). An increase in distress can foster the development of maladaptive coping mechanisms, and many parallels can be drawn between race-related stress among African Americans and culture-related stress among Asian Americans. Asian American women may experience pressure from their native Asian cultures that promotes the onset of eating disorder pathology, including traditional Eastern Asian concepts (e.g., loss of face). In many Eastern Asian cultures, the concept of loss of face indicates that individuals may internalize distress in order not to bring shame or embarrassment upon their family (Yokoyama, 2007). Eating disorders may be used as a coping method to “save face” when an individual is experiencing distress as these disorders can be easily concealed from others (Yokoyama, 2007).

The myth of the model minority may also play a role in the onset of eating disorders, especially among young Asian American women who experience intercultural conflict in trying to unite their parents' or family's expectations with that of the dominant society. The model minority myth is a stereotype that attributes success in Asians to a lack of barriers and an implicit achievement orientation (Chol Yoo, Burrola, & Steger, 2010; Gupta, Szymanski, & Leong, 2011). This myth posits that all Asian Americans are innately wired to strive for perfection. Extant literature has demonstrated that internalization of this stereotype as well as other Eastern Asian cultural expectations can lead to distress, which has been linked to a reduction in psychological help-seeking behaviors (Iwamoto, 2010), including help-seeking for eating disorders (Ball & Lee, 1999; Hay & Williams, 2013). Further research is needed to establish these putative relations.

### **Treatment Utilization**

The previous section explored prevalence of and reasons for eating disorder onset among African American and Asian American women. There is a low overall prevalence of treatment-seeking for eating disorders across all ethnic groups with less than 50% of individuals with eating disorders receiving treatment (Fairburn et al., 2000; Johnson, Cohen, Kasen, & Brooke, 2002). African American and Asian American women are diagnosed at lower rates than White women and are not likely to seek eating disorder treatment (Cachelin et al., 2000; Pike et al., 2001; Shuttlesworth & Zotter, 2011; Thompson-Brenner et al., 2013). Two major sources of these disparities are bias (e.g., on the part of clinicians and care providers, diagnostic instruments, and patient bias) and context (e.g., sociocultural and environmental). Often, these sources are interrelated and have an interactive influence on treatment receipt.

**Provider bias.** Health care providers might engage in diagnostic and referral bias when they make systematic errors in judgment or collection of clinical information (Blair, Steiner, & Havranek, 2011). They might be especially prone to these biases when it comes to eating disorder symptoms among ethnic minority patients (Sinha & Warfa, 2013). A study by Abbas et al. (2010) in the United Kingdom concluded that fewer Asian individuals were referred to eating disorder services and were less likely than non-Asians to be diagnosed with anorexia nervosa, even when presenting with a similar diagnostic profile. Two additional large scale studies conducted in the United Kingdom ( $N = 648$ ) and United States ( $N = 9,069$ ) found that ethnic minority participants were less likely to be referred for eating disorder treatment than Whites (Becker, Franko, Speck, & Herzog, 2003; Waller et al., 2009). In the study in the United States (Becker et al., 2003), self-report and clinician data were collected from over 9,000 participants (84% female; age range = 17 – 58 years old; 81.6% White, 6.6% African American, 3.4% Latino, 3.0% Asian/Pacific Islander, 0.9% Native American/Alaska Native, 2.5% other ethnicity). Ethnic minority patients who reported eating disorder symptoms (i.e., eating and weight concerns) were significantly less likely than White patients to have been asked by their care providers (both primary care and mental health providers) about eating disorder symptoms. Additionally, ethnic minority participants were less likely than non-minority subjects to seek treatment for eating disorder symptoms at two years following the survey. Results from the Becker et al. (2003) and other studies point to the existence of provider bias in diagnosis and referral of eating disorders among ethnic minority patients, even when patients verbally report symptoms.

Although these studies found significant disparities in treatment referral, little to no information exists on reasons *why* providers are less likely to refer ethnic minorities for eating disorder treatment than White individuals. Thus, speculation from the general mental health referral literature must be made for the case of referral of ethnic minorities with eating disorders. One potential issue in referral bias is the standard set forth by the American Psychological Association that patterns of behavior that are deemed as culturally acceptable or expected are *not* to be misconstrued as indicators of mental health impairment (Adeponle, Thombs, Groleau, Jarvis, & Kirmayer, 2012; American Psychiatric Association, 2013). According to this criterion, behaviors such as binge-eating among African American women or restrictive eating among East Asian women may be misconstrued as culturally normative behaviors and thus not diagnosed as eating pathology. Alternately, confounding factors can make indicators of eating pathology less clear among ethnic minorities. For instance, individuals who are of low socioeconomic status are more likely than individuals with higher annual income levels to be overweight or obese (Ogden, Lamb, Carroll, & Flegal, 2010), and an indicator of binge-eating disorder being overweight or obese (American Psychiatric Association, 2013). Thus, care providers may conclude that an individual's overweight or obesity problems are due to factors related to their socioeconomic status (e.g. having less access to nutritious foods; lack of exercise) rather than being rooted in binge-eating pathology.

Errors in practice may also lead to an under-diagnosis or misdiagnosis of eating pathology in ethnic minority patients. In a revealing study, Alegría and colleagues (2008) examined videotaped diagnostic intakes of ethnic minority patients ( $N = 129$ ). These researchers found that the majority of mental health providers relied only on the patient's self-report of

depression, anxiety, or substance use symptoms to diagnose the patient without regard to specific diagnostic criteria. While this might be standard practice in most health care settings, exclusive reliance on self-report may be problematic among Asian Americans. For instance, extant literature indicates that Asian Americans are less likely than European Americans to engage in direct verbal communication and to self-disclosure with care providers (Hall & Eap, 2007). Thus, if clinicians are relying solely on key words that come from verbal communication with a client, the indicators of eating pathology may be completely missed during the interaction even when they exist.

**Diagnostic instruments.** Two important diagnostic tools for eating disorders are the Eating Disorder Examination (EDE; Fairburn & Cooper, 1993) and the Eating Disorder Examination Questionnaire, a survey form of the EDE (EDE-Q; Fairburn & Bèglin, 1994; Fairburn, 2008). Using the EDE or EDE-Q, mental health care providers can assess whether a patient exhibits disordered eating symptoms within a specific time frame (i.e., over the past 28 days). Further, the EDE can be used to predict odds of an individual developing an eating disorder over time (Fairburn & Cooper, 1993; Fairburn, Cooper, Doll, & Davies, 2005). More information on the psychometric and validation data for the EDE-Q is discussed in the Measures section.

**Problems with diagnostic tools.** Even when care providers *are* attuned to cultural differences that influence mental health symptomology, they may use diagnostic tools that influence inaccurate diagnoses. Historically, measures used to assess disordered eating pathology were normed on majority White female samples (e.g., Fairburn & Bèglin, 1994; Garner & Garfinkel, 1979; Garner et al., 1983) and were inappropriate for assessing eating disorders

among ethnic minority women. There are some culturally relevant measures of body dissatisfaction that have been normed on majority ethnic minority samples (e.g., Pulvers Figure Rating Scale; Pulvers, 2004), and some eating disorder measures have been normed with representative samples of ethnic minorities (e.g., Eating Disorder Examination Questionnaire, Fairburn, 2008); however other diagnostic tools might be variant across groups and thus not measure the same construct between groups (e.g., Eating Attitudes Test – 26, Kelly et al., 2012).

When utilizing tools like the DSM-V, it is important for providers to keep in mind that expressions of distress may differ culturally (Chentsova-Dutton & Tsai, 2009), and thus an African American woman presenting symptoms of binge-eating disorder and comorbid mental health conditions might differ drastically from a White woman presenting with similar symptoms. Asian American woman might not present a straightforward diagnostic profile for an eating disorder. In a study by Ting and Hwang (2007), Asian American patients who were later diagnosed with an eating disorder originally expressed the disorder via somatic symptoms such as constant stomach aches. These symptoms are not indicative of criteria set forth in the *DSM-V*. Thus, it is important for clinicians to utilize diagnostic criteria that have been normed on ethnically and racially representative samples, as well as be familiar with cultural differences during the diagnostic process.

**Patient Bias.** The previous section discussed how treatment providers may hold biases about patients' eating behaviors, but the same may be said for the patients themselves. African American and Asian American women might have different, culturally-based, reasons for avoiding treatment for disordered eating behaviors.

Researchers have examined the role of communication style in treatment-seeking behaviors, especially among Asian Americans. In terms of mental health treatment, there may be differences in cultures valuing direct versus indirect communication. In European American cultures, there is value placed on verbal communication where a client interacts with a therapist and uses verbal self-disclosure (Hall & Eap, 2007; Leong & Lee, 2006). However, in Asian cultures, value may be placed on nonverbal, indirect communication (Hall & Eap, 2007; Leong & Lee, 2006). Instead of verbally disclosing engaging in disordered eating behaviors, an Asian American client with high native culture identification might be more likely to report experiencing somatic symptoms (Ting & Hwang, 2007). Asian Americans might be more likely than European Americans to tie mental health to physical health, thus reducing help-seeking intentions. Instead of being focused on distress itself, Asian Americans may be more attuned to the physical symptoms associated with it (Lin & Cheung, 1999). Thus, instead of seeking psychological help for symptoms, Asian Americans may seek help from physicians to alleviate physical symptoms.

Culturally-influenced coping behaviors may also affect an individual's eagerness to seek psychological help. In both African American and Asian American cultures, value is placed on an individual's ability to deal with problems on their own (Broman, 2012; Hall & Eap, 2007). In Asian American culture, this individualistic coping style has been described as a method by which individuals can retain collectivistic harmony (Hall & Eap, 2007). By dealing with personal problems privately, individuals are less likely to disrupt the balance in social connections and bring problems upon others. Similarly, in African American culture, a history rooted in self-reliance may influence individuals to deal with emotional problems on their own (Broman,

2012). To seek treatment for psychological issues is stigmatized within some African American and Asian American cultures (Ausberger, Yeung, Dougher, & Hahm, 2015; Ward, Wiltshire, Detry, & Brown, 2013), and thus may lessen the motivation to obtain help from a mental health professional.

The nature of eating pathology could also be a reason not to seek treatment. Women who exhibit patterns of eating pathology that are distressing and/or who meet the diagnostic criteria for eating disorders, might not be aware that these behaviors are consistent with a psychological disorder. Alternately, they may feel a sense of unease from engaging in these behaviors, but attribute the source to factors other than body dissatisfaction. However, extant literature tying eating pathology to treatment-seeking is inconclusive, and this dissertation seeks to enhance understanding of treatment-seeking among African American and Asian American women.

#### **Disclaimer on the Nature of Mental Illness in the U.S.**

Despite the well-meaning intention of cultural targeting programs for diverse groups, a statement must be made on the nature of mental illness in the U.S. It must be acknowledged that even the term “mental health” is problematic in that it is a cultural construct indicating that individuals who have poor mental health are in some way deviant. Mental health indices have been normed on dominant White culture and any individual who meets a set number of deviant behaviors may be seen as not normal. With that, mental health diagnoses of eating disorders might not necessarily reflect culturally relevant pathology. It is not to say that an African American or Asian American woman who meets criteria for binge eating disorder, for example, would be considered “ill” by another cultural standard. However, if these individuals do in fact meet *DSM-V* criteria, it is imperative to encourage treatment protocols that will help to reduce



negative correlates of eating pathology. Additionally, it is important to take into account cultural factors such as acculturation, ethnic identity, and cultural identity. These factors may influence the onset of disordered eating symptoms among ethnic minority women.

### **The Body Project**

The Body Project is an evidence-based intervention with the goal of reducing body image issues and disordered eating behaviors among women. Its theoretical foundations are the Dual Pathway Model of eating pathology and Cognitive Dissonance Theory (See Theoretical Frameworks, p. 22). The goal of the Body Project is to reduce internalization of the thin-ideal and reduce pursuit of thinness via a combination of group activities and discussion. An example of some of the activities used in the Body Project is a role-play assignment in which a participant must dissuade a facilitator from making comments endorsing the thin ideal (e.g., “I wish I could get a thigh gap!”). Randomized prevention trials across eight different labs have found that participation in the Body Project reduces body dissatisfaction, thin-ideal internalization, negative mood, unhealthy diet behaviors, and eating disorder pathology (McMillan et al., 2011; Stice et al., 2006, 2008a, 2008b, 2009, & 2011). The Body Project has also yielded secondary outcomes including improving positive affect and reducing the onset of obesity. The Body Project has been implemented in several different ways, including four 1-hour weekly sessions and six 45-minute sessions. The current study utilized the peer 2-session version of the intervention (See Appendix A).

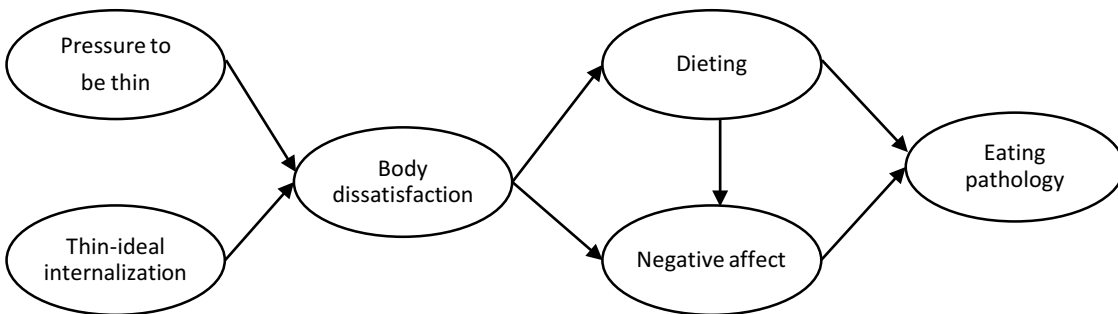
### **Theoretical Frameworks**

The present study is grounded in three theoretical frameworks: The first and second are the Dual Pathway Model of eating pathology (Stice, 1994, 2001; Stice, Marti, & Durant, 2011)

and Cognitive Dissonance Theory (Festinger, 1957), which provide the theoretical bases for the pilot intervention in this study. The third framework is the rationale for culturally-adapted interventions as proposed by Okamoto and colleagues (2014).

### **Dual Pathway Model of Eating Pathology**

The Dual Pathway Model accounts for how sociocultural pressures and thin-ideal internalization eventually lead to the onset of eating pathology. This model, developed by Stice and colleagues (Stice, 1994, 2001; Stice et al., 2011) provides a partial theoretical basis for the Body Project eating disorder prevention program. The model posits that thin-ideal internalization and sociocultural pressures (i.e., family, media, and peer) lead to heightened levels of body dissatisfaction. These heightened levels of body dissatisfaction subsequently lead to ineffective and transient dieting behaviors, which further result in negative affect and the onset of eating pathology. The Dual Pathway Model is presented in Figure 1.



*Figure 1.* Theoretical components of the Dual Pathway Model of eating pathology (Stice 1994, 2001; Stice, Marti, & Durant, 2011)

A similar model, the Tripartite Influence Model of body image and eating disturbance (Keery, van den Berg, & Thompson, 2004; Thompson et al., 1999), was used as the theoretical rationale for my thesis which explored whether the pressures of family, media, and peers led to

heightened levels of body dissatisfaction among Asian American emerging adults (Javier & Belgrave, 2015). I determined that the relation between peer influence and body dissatisfaction was mediated by thin-ideal internalization. In a related study, peer influence moderated the relationship between race and body dissatisfaction among African American emerging adult females such that African American women who reported higher perceived weight and shape pressures from their peers also reported heightened body dissatisfaction (Javier, Moore, & Belgrave, 2016). According to the Dual Pathway Model, these heightened levels of body dissatisfaction should theoretically foster ineffective and transient dieting practices and place individuals at an increased risk of negative affect and eating pathologies to compensate for failed dieting behaviors. Restrictive eating and thus, caloric deprivation, is associated with decreases in mood. Decreases in mood may increase the reward value of food and place individuals at higher risk of binge eating (Stice et al., 2013).

The Body Project intervention developed by Stice and colleagues (2013) acts to increase at-risk individuals' level of body satisfaction to deter the onset of ineffective dieting and eating pathology. Women who have some level of concern with body image (i.e., from family, media, or peer pressures) or who internalize the thin-ideal are ideal candidates for the intervention, as activities were developed to increase body satisfaction and foster healthy body-related practices.

### **Cognitive Dissonance Theory**

Cognitive Dissonance Theory (Festinger, 1957) provides the other theoretical basis for the Body Project intervention, which is considered a dissonance-based intervention (DBI). Cognitive Dissonance Theory proposes that when an individual experiences psychological discomfort as a result of conflicting cognitions, he or she will be motivated to alter those

cognitions to reduce this disequilibrium (Festinger, 1957). Cognitive dissonance is enacted upon by asking individuals to voluntarily act in contrast to how they would usually respond to a current situation. The most common laboratory-induced activity that creates cognitive dissonance is to ask a participant to write an essay taking a counter-attitudinal stance towards some issue. For instance, in dissonance based eating disorder interventions, cognitive dissonance is induced by asking participants to take a counter-attitudinal stance towards thin-ideal internalization. Thus, participants are guided in reframing their way of thinking about appearance, a major aspect of self-concept especially for females in an image-driven society.

Overall, interventions utilizing Cognitive Dissonance Theory enact longer-lasting attitudinal changes than interventions that utilize other theoretical approaches such as knowledge acquisition (Freijy & Kothe, 2013). This is due to DBIs challenging thinking and attitudes at an intrapersonal, as opposed to interpersonal level (Freijy & Kothe, 2013). DBIs have been used to enact changes in health, psychological, and social behaviors including substance abuse (Barnett, Far, Mauss, & Miller, 1996), smoking (Killen, 1985), obesity (Axsom & Cooper, 1981), and risky sexual behaviors (Stone, Aronson, Craing, Winslow, & Fried, 1994).

### **Deep-Structure Cultural Adaptation**

Despite some improvement in cultural targeting of health and psychological interventions, the amount of modification to the intervention needed to enact a substantial attitudinal change varies based upon both the population that is targeted and the intervention that is being administered. As discussed previously, DBIs are more successful and sustainable because they enact change at an *intrapersonal* versus *interpersonal* level. The change and success of culturally targeted interventions is also dependent on whether or not change is enacted at the

surface-level (i.e., interpersonal) or a deeper (i.e., intrapersonal) level. Thus, the theory of Deep-Structure Cultural Adaptation (Okamoto et al., 2014) provides the novel and final theoretical basis for the current study.

Okamoto and colleagues (2014) describe a continuum of methods used to create culturally-adapted health and behavioral interventions. This continuum ranges from surface-level interventions (programs with minor culture-related changes in content or lesson), to deep-seated interventions (using systematic methods to integrate unique worldviews, beliefs, and values of a culture to the curriculum), to culturally-grounded prevention (with culture at the heart of the prevention curriculum) (Okamoto et al., 2014). Okamoto and colleagues hypothesize that the deeper-seated a cultural intervention is (i.e., the greater the focus on cultural issues, and thus the more intrapersonal the intervention content is), the more likely the intervention outcomes will be sustainable and affect long-term change. The theoretical basis of Deep-Structure Cultural Adaptation has received some empirical support, especially among mental health interventions conducted with African American and Asian American populations. Interventions that are more intensely focused on cultural issues are ultimately more sustainable than programs that focus on superficial cultural adaptations (Crowder & Broome, 2012; Kreuter, Lukwago, Buchholtz, Clark, & Sanders-Thompson, 2003; Kulis, Dustman, Brown, & Martinez, 2013).

In order to enact more intense cultural targeting than surface-level adaptations, Deep-Structure Cultural Adaptation requires close collaboration with targeted population and input from members of that population. Input may be obtained via focus groups, interviews, or by including members of that population in the development and implementation of programs, consistent with community-based participatory research. For example, a cancer-screening

recruitment program for African-American women, Kreuter et al. (2003) employed methods such as having women fill out questionnaires on constructs such as collectivism, racial pride, and religiosity. If women scored high on any of these measures, cancer screening pamphlets were tailored to account for these constructs.

Deep-Structure Cultural Adaptation can be used to apply intensive cultural tailoring to extant evidence-based programs without redeveloping the programs. Although some studies have investigated surface-level adaptations in outcomes of an eating disorder DBI, these studies have limitations. For instance, Stice, Marti, and Cheng (2014) and Rodriguez, Marchand, Ng, and Stice (2008) measured differential effects of a DBI across ethnic groups (i.e., White, African American, Hispanic, and Asian American) based on race-matching. Race-matching was the only adaptation in the intervention. Overall, results indicated that race-matching was not needed for the DBI to work. However, communication pertaining to cultural issues is an important factor in whether an ethnic minority patient will continue treatment (Meyer & Zane, 2013; Rathod, Kingdon, Phiri, & Gobbi, 2010). Race-matching, a surface-level factor, may not be an adequate way to address deeper cultural issues related to eating pathology. Further, in the Stice et al. (2014) and Rodriguez et al. (2008) studies, participants were college students. Ethnic minority emerging adults who are not university students may experience unique challenges in both seeking and being retained in treatment for eating disorders, and efficacy for the DBI among this population has not been addressed in the literature.

Deep-Structure Cultural Adaptation may be more appropriate for a prevention program targeting body image among African American and Asian American women than surface-level adaptation. There is little empirical knowledge of reasons for eating disorder onset in these

groups, yet evidence-based programs like the Body Project seem to work for diverse groups of women. Utilizing this rationale, increasing the intensity of cultural targeting in a DBI aimed at increasing positive body image and healthy eating behaviors should result in more favorable outcomes than those found in the Stice et al. (2014) and Rodriguez et al. (2008) interventions. Consistent with the dissonance-based intervention, which changes intrapersonal attitudes towards body image, providing a pre-treatment session which addresses deep-seated cultural and racial issues should theoretically cause an increased improvement in the overall outcomes of the intervention. This is especially true for the outcomes of treatment-seeking, body dissatisfaction, and disordered eating behaviors.

### **Purpose of the Study**

Agencies such as the National Institute of Mental Health are currently moving towards “one-size-fits all” models of mental health treatment in order to maximize treatment reach. However, there is evidence that cultural tailoring and individualization of treatment protocols works best to maximize outcomes among ethnic minority populations. Collectively, extant literature indicates that current eating disorder prevention programs are not adequately tailored to reflect cultural differences among ethnic minority women exhibiting disordered eating behaviors. The central purpose of the current study, therefore, was to examine the feasibility of implementing a novel, culturally-targeted pre-treatment session prior to an eating disorder prevention program based on Cognitive Dissonance Theory. This goal will be achieved via two study components: (1) focus groups and (2) pilot intervention. Study findings have the potential to inform treatment practices for ethnic minority women and provide suggestions on how to recruit and retain women in these types of programs.

## Research Questions

This two-part dissertation study will answer several questions pertaining to body image, eating disorders, and treatment-seeking among ethnic minority women. The first two questions provide a foundation for the current research, and the last two questions address the overarching goal of this study to determine whether a culturally-targeted pre-treatment session of an existing eating disorder prevention intervention is feasible.

1. What sociocultural and individual factors affect body image and eating behaviors among African American and Asian American women?
2. To what extent is it feasible to implement a culturally-adapted version of an existing eating disorder prevention intervention among African American and Asian American emerging adults?
3. Are individuals who receive a culturally-targeted pre-treatment more likely to be retained in an eating disorder prevention program than individuals who do not receive a pre-treatment?
4. What are the preliminary outcomes of such an intervention on variables such as eating pathology, body dissatisfaction, and attitudes towards seeking psychological professional help?

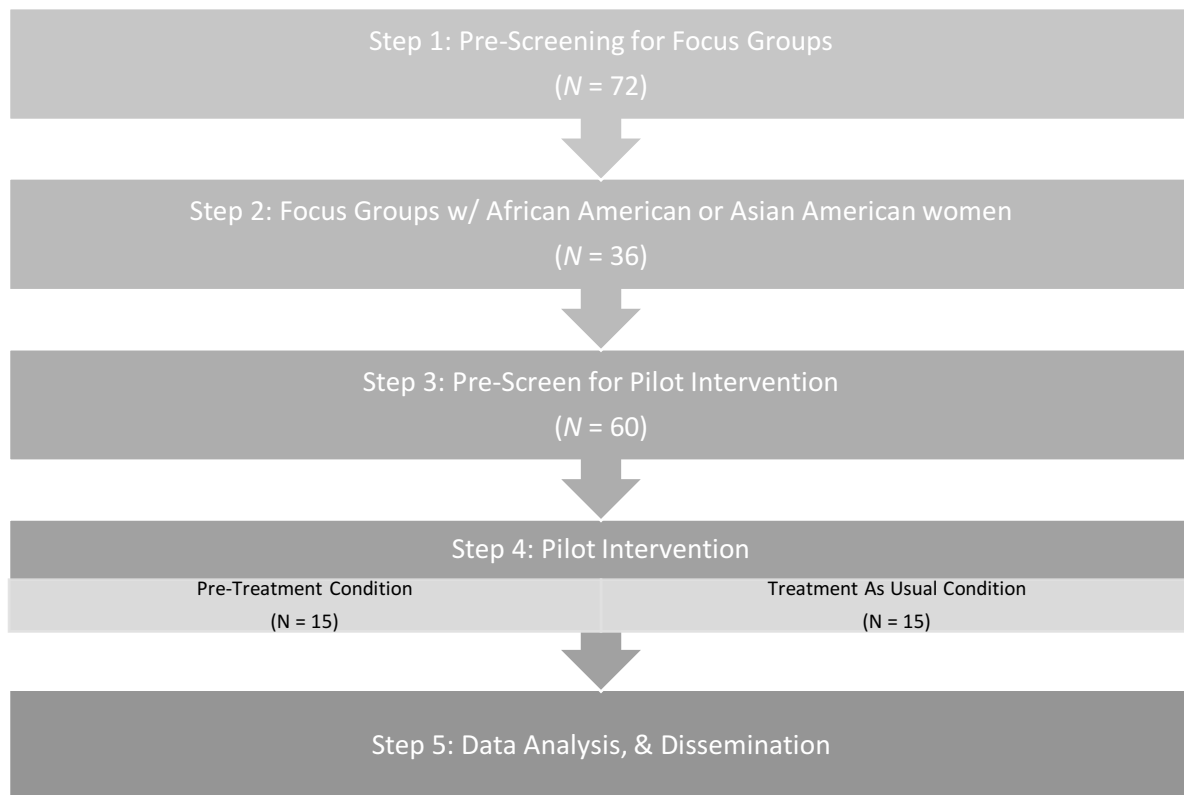
Participants completed a comprehensive self-assessment at baseline, post-test, and 2 to 3-month follow-up. Results from the current pilot study assessed the feasibility of a cultural adaptation to an existing evidence-based DBI for eating disorders among African American and Asian American women. Additionally, feasibility of this cultural pre-treatment was evaluated via



triangulation of several different data sources, including exit interviews with a co-facilitator, in-depth observation of sessions and the pre-treatment, and participant satisfaction surveys.

### **Overview of Methods**

Participants were recruited for focus groups if they reported having some concerns or dissatisfaction with their body (Step 1). They were recruited via the psychology pool and from the community. Focus groups will be conducted with groups of either community-members only, or college students-only (Step 2). After focus groups were conducted and the pilot intervention protocol refined, participants from student groups and community organizations were pre-screened for the intervention by using measures asking if they had concerns or dissatisfaction with their bodies (Step 3). Once participants were identified from this second pre-screen, they were randomly assigned to either a pre-treatment condition or condition as usual and then participated in the pilot intervention (Step 4). After data were collected and analyzed, a plan for dissemination of findings will be developed? (Step 5) (Figure 2).



*Figure 2.* Project Flow Chart

### **Recruitment and Informed Consent**

Participants were recruited from the community, from the psychology subject pool, and from student organizations at VCU. Participants from the psychology subject pool and community members were recruited for focus groups. Participants from the community and student groups comprised the sample for the intervention. Overall, the proposed number of participants was 36 women across focus groups and 30 women in the pilot intervention. At the outset, it was estimated that 132 women will be reached, but only ~66 women would participate in the study because approximately half of women in the United States report having body image concerns (Bearman et al., 2006). Unfortunately, data specifically on Asian American and African American women is not available, and so this estimate was generalized to these groups.

Participants completed informed consent on-line as a part of the screening process, and completed additional consents before completing all other procedures. To recruit from the community, I worked with community organizations including the Asian American Society of Central Virginia (AASoCV), the Crater Health District, and St. Paul's Baptist Church. Other community participants were recruited at community events, via announcements, and referrals made by organization stakeholders. Recruitment from the university occurred via the SONA psychology pool for the focus groups (where students taking psychology courses at VCU are able to sign up to participate in research studies) and via recruitment through student clubs, flyers, and student events for the intervention sample. All participants except for those recruited through SONA were offered monetary incentives for participating in either the focus groups or intervention sessions. SONA participants were offered a choice between monetary incentives or course credit. Once participants completed the intervention, they were asked to provide a phone number and e-mail address so that they could be contacted for a follow-up session.

### **Pre-Screen Process**

A pre-screen process occurred before both the focus groups and the intervention and consisted of confirmation of a number of pre-set criteria. Upon initial contact, women were asked for their contact information in order to receive further information about participating in either the focus groups or the pilot intervention. They were then sent an e-mail confirming that they met the following inclusion criteria: (1) Identify as female; (2) Identify as either Asian American or African American; (3) Were between 18 and 30 years old; and (4) Report having some body image concerns. Criterion 4 is used in the Body Project to recruit women for whom an intervention aimed to decrease eating pathologies and increase body satisfaction would be

appropriate. “Body concerns” could range from dissatisfaction to one’s weight or shape or any other aspect of appearance. Participants were then asked to respond to the initial e-mail to express whether they would like to continue in the process, and, if agreeable, were scheduled to participate in either a focus group or pilot intervention group.

### **Study 1: Focus Groups**

The purpose of Study 1 was to use grounded theory to explain the process by which Asian American and African American women in emerging adulthood perceive and interpret messages about body image, eating disorders, and treatment-seeking. A social constructivist grounded theoretical framework from the perspective of Charmaz (2006) was used to develop a process model for this phenomenon. This model can be utilized by practitioners, helping them to understand better the societal, interpersonal, and intrapersonal forces that may shape conceptualizations about body image and eating behaviors among Asian American and African American women.

## **Method**

### **Grounded Theory**

Compared with other qualitative methodologies, grounded theory is distinguished by its use of constant comparative analysis (Glaser & Strauss, 1967). In constant comparison, the processes of data collection and data analysis occur simultaneously to allow for later stages of data collection to be informed by analytic outcomes from the initial sets of data. Additionally, the specific framework of social constructivist grounded theory from the perspective of Charmaz (2006) was employed. Charmaz’s (2005, 2006) methodology aims primarily to describe how individuals construct their social realities through both an individual and a collective lens.

According to the social constructivist framework, the value in grounded theory as a qualitative theoretical framework lies in the general principles and practices of the research, and not in a prescribed set of guidelines. Thus, Charmaz disengaged from the theoretical perspectives of her contemporaries, Glaser and Strauss (1967) and Strauss and Corbin (1990) to allow for further flexibility in both the methods used and analysis of the data. In order for a representative theory to emerge, the current study used both rigorous, yet flexible methods in line with social constructivist grounded theory recommendations.

### **Participants**

Participants were recruited primarily via purposeful sampling, which involves “selecting information-rich cases strategically and purposefully” (Patton, 2002, p. 243). In a previous study, I established that Asian American women in emerging adulthood, specifically those in a college environment, have high levels of body image problems and body dissatisfaction (Javier & Belgrave, 2015). Thus, Asian American participants were recruited from a diverse college setting via the undergraduate psychology research platform. African American participants were recruited from both the community as well as the psychology research platform.

Women were pre-screened using a variety of inclusion criteria. They: 1) identified as Asian American or African American; 2) were between the ages of 18 and 30; and 3) reported having some body image problems. The third criterion was taken directly from criterion used in the Body Project and was asked in the initial email contact. Women were instructed to reply to the initial e-mail to confirm a time to meet if they met all three criteria. Criteria 1 and 2 were generalizable enough to yield a diverse group of Asian and African American women, ranging in age. Criterion 3 was included in order to yield a sample of women that could speak to the

experience of having some discomfort with an aspect of their body or appearance in a group conversation. If women met these criteria, they were contacted and their focus group time was confirmed.

### **Data Collection Procedure**

This study was first approved by the university's Institutional Review Board. Data were collected in the form of audio-recorded transcriptions of focus group discussions held in-person at a private and secure location on the university's campus.

Upon arrival, participants completed informed consent and confidentiality and anonymity were discussed. Then, participants were asked to choose a pseudonym and to wear a nametag with her pseudonym. To assist with ease of transcription and analyses, women were asked to identify themselves by their pseudonyms prior to answering any questions. The facilitator then went through a detailed script discussing confidentiality and anonymity. After logistical questions were answered, the discussion commenced. At the conclusion of the session, participants were asked once again if they had any questions. After answers were provided, they were given course credit and thanked for their time and contributions.

### **Focus Group Questions**

A semi-structured list of interview questions was developed, reviewed, and refined by psychology faculty with interests and background in body image of ethnic minority women. The focus group questions were semi-structured in nature to allow the facilitator the flexibility to ask a follow-up question or clarify if needed (Braune & Clarke, 2006). Additionally, in line with the social constructivist grounded theory, the list and wording of the questions were refined and clarified as emerging analyses demonstrated a need for alteration to reflect participants'

experiences more accurately. The following set of questions constituted the initial set of questions used in the focus group protocol:

- (1) What is body image to you?
- (2) How would you define “disordered eating behaviors”?
- (3) Using your own, or others’ experiences, how do you think body image and/or body dissatisfaction develop among ethnic minority women?
- (4) What about culture would cause women to have body dissatisfaction?
- (5) What are the consequences of body dissatisfaction and disordered eating among ethnic minority women?
- (6) What are the barriers to treatment-seeking for eating disorders among ethnic minority women?
- (7) What may prevent ethnic minority women from staying in eating disorder treatment programs?

There were few changes to the list of questions as the data collection process continued, but wording slightly changed in some cases. For instance, in questions 3, 5, 6, and 7, the facilitator began to use the term “Asian American women” or “African American women” in place of “ethnic minority women.” This change was made as it became apparent that participants correlated the term “ethnic minority” with their experiences as Asian American women or African American women. In addition, question 4 was altered slightly to clarify what was meant by the term “culture.” In most cases, the facilitator had to clarify that “culture” could indicate native Asian or African cultures *or* the dominant, U.S. culture.

## **Data Analytic Procedure**

During the course of data collection, audio-recorded focus groups were transcribed by two trained research assistants according to a set of guidelines I developed. These transcriptions were then verified by me. Data were then uploaded into ATLAS.ti version 6.0 (Dowling, 2008) and a constant comparison analytic process was undertaken. ATLAS.ti was used to both code and prepare memos of the data (i.e., notes that comment on emerging categories of pieces of text). Charmaz has stated that memo-writing is an integral part of the data analytic process and allows for a researcher to link “analytic interpretation with empirical reality” (Charmaz, 2000, p. 517).

The major characteristics of social constructivist grounded theory involve the iterative processes of initial coding, focused coding, and theoretical coding (Charmaz, 2006). As recommended with grounded theory research, the process of refining codes and themes was iterative, and constant comparison occurred at each review of the data (Glaser & Strauss, 1967). During the initial coding process, transcripts were thoroughly reviewed and memo writing was used to comment on emergent categories. Then, a list of preliminary codes was developed. Quotations which encapsulated multiple preliminary codes were sorted accordingly, and then were further broken down during subsequent coding stages. During the focused coding stage, codes developed during the initial coding state were narrowed down to those that occurred most frequently and were considered most integral to the emergent theory. Transcripts were then reviewed and individual quotes were placed under these narrowed codes. Finally, during the theoretical coding stage, relationships between codes and categories were delineated. Grounded theoretical models for both the Asian American and African American groups emerged from



these interrelationships, from which a group process theory could be derived (See Figures 3 and 4).

To improve methodological rigor, several steps were taken. First, I reviewed on-going findings with trained research assistants during several meetings in order to reach consensus and an appropriate level of inter-rater reliability. This was helpful in bias-checking and ensuring that the emergent codes fit in with perceptions of what participants stated. Second, detailed focus group notes taken by trained research assistants during the focus group sessions were used to triangulate the emergent themes, thus ensuring greater reliability and validity of the data. The research assistants were told to take notes not only around the text of the discussion, but also to observe inherent group processes and body language. This attention to both the internal and external processes of the group discussions helped me interpret discussion themes where they might not have been so clear. Third, research assistants trained in qualitative methodology independently coded 30% of the manuscripts. These coded manuscripts were checked against those I coded, and yielded kappa values ranging from  $K = 0.74$  (Asian American groups) to  $K = 0.77$  (African American groups), indicating a high degree of interrater reliability. Finally, the on-going process of bracketing was used throughout both the data collection and data analyses processes. Bracketing, defined as “identification and temporary setting aside of the researcher's assumptions” (Fischer, 2009) was used throughout the focus groups and subsequent analysis. Bracketing is a tool used in qualitative research by researchers to ensure that preconceived biases do not affect interpretation of the experiences stated by discussants (Charmaz, 2000). As an Asian American woman within the target age range, bracketing was necessary during the iterative process of analysis.

## Results

The purpose of the focus groups was to develop a culturally-tailored pre-treatment for both African American and Asian American groups. Thus, data from these two groups were analyzed separately, and theoretical models were developed based on individual themes that emerged from these focus groups. First, I discuss the theoretical model that resulted from the Asian American groups and the subsequent pre-treatment that was developed, and then I discuss the same concepts among African American women.

### Asian American Groups

A total of six focus groups were conducted with Asian American women, and groups consisted of between 3 to 6 women each ( $N = 26$ ). I was the facilitator for the focus groups. A trained research assistant was present at every session to take detailed notes about group processes. Focus groups lasted between 20 to 35 minutes each and were held from December 2015 to February 2016. The final sample included 26 Asian American women ranging in age from 18 to 21 ( $M = 19.25$ ,  $SD = 0.78$ ). Diverse Asian subgroups were represented and included Korean:  $N = 6$ ; Chinese:  $N = 1$ ; Vietnamese:  $N = 5$ ; Indian  $N = 6$ ; Filipino:  $N = 3$ ; Pakistani:  $N = 3$ ; Nepali:  $N = 1$ ; Half-Vietnamese, Half-Lao:  $N = 1$ ).

Thirteen prevalent codes were grouped into three major themes of: (1) Societal Influence; (2) Interpersonal Influence; and (3) Individual Influence. Figure 3 presents the social constructivist grounded theory model developed from focus group data, entitled, the “Asian American Body Image Evolutionary Model.”

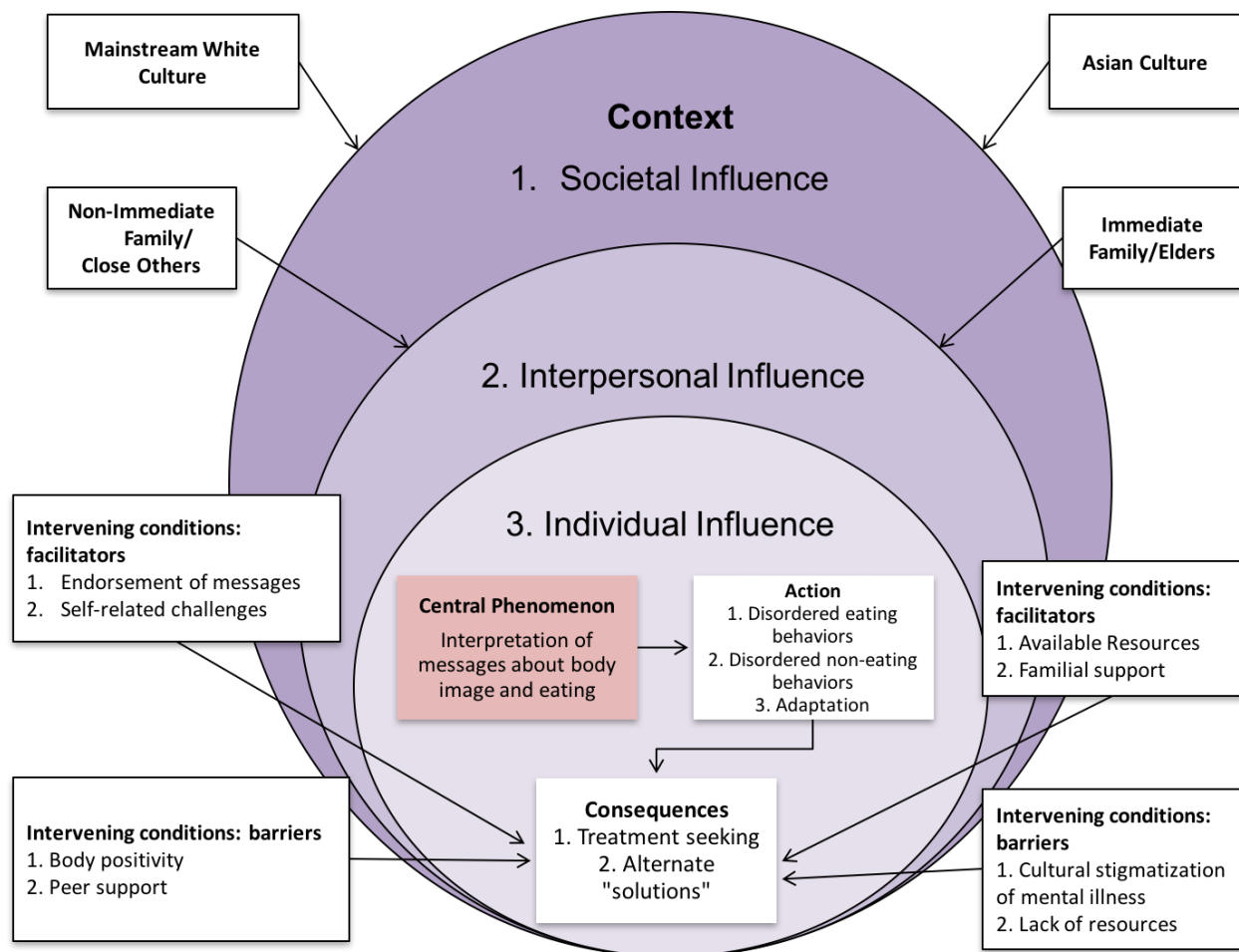


Figure 3. Asian American Body Image Evolutionary Model

The illustrative discussions among Asian American women provided the framework for the process of developing attitudes and behaviors about body image and eating behaviors in this population. Overall, the three main thematic categories that emerged from analysis were that of societal, interpersonal, and individual influence in determining an individual's attitudes towards and interpretation of body image and eating messages. These influences were interwoven throughout the discussion and affected almost every subsequent theme gleaned from the model. These attitudes and the central phenomenon of interpretation, in turn, led to actionable behaviors of: 1) engaging in disordered eating behaviors; 2) engaging in behaviors that are disordered, but

not eating-related; or 3) adaptation to one's current body image. Finally, the actions of participants gleaned from these focus groups were found to be directly linked to their feelings about treatment seeking or seeking alternate "solutions" to rectify disparities between personal body image and influences on body image. A discussion of relevant themes follows.

### **Dichotomy of American vs. Asian Cultures**

The contextual theme of societal influence provided the systematic context within which thoughts and behaviors about body image and eating emerged among Asian American women. One-hundred and thirty-one quotes were coded for "Asian Culture" and "American Culture" across the six focus groups. Two societal influences in particular were discussed by the majority of participants: 1) mainstream White or U.S. culture (50 quotes); and 2) native Asian culture (81 quotes). Throughout focus group discussions, the dichotomy of the U.S. culture versus Asian culture became very apparent. For instance, some participants remarked on the contradictory nature of ideal appearance in U.S. culture versus Asian culture. *Jessica*, a Vietnamese woman (20), commented,

And I think it's sort of like what I notice in my culture is that the Vietnamese body image ... and the U.S. body ideal body image is, like, they sorta contradict each other ... We prefer someone who works out and like tanner but in ... Vietnam, they it's more like you should have a slim body but don't work out and things like that. And then you should be pale. It's sorta, sorta hard to live here when it's like two things all at once.

*Grace*, a Korean woman (18), discussed that relatives or family members in particular may experience this discrepancy especially if they are recent transplants or visitors to the United States:

My cousins that came to America recently, they're uncomfortable here because they're more related to Korean culture, and then being kinda forced to American culture is different for them. So their idea of body image, about how they should look, how they should eat and stuff like that, is a lot different I guess...

The negative impact of Asian culture at the societal level on positive body image was also present throughout the discussions. *Yonda*, a Vietnamese-Laotian woman (20), discussed how there is one standard of beauty in Asia that is different from the U.S. ideal of beauty when she stated, "But then in the Asia especially, there's like one set standard of what beauty is supposed to be and I guess if you don't kind of fit that, then you're not considered actually pretty or good enough, I guess."

*Christine*, a Korean woman (19), discussed the specific influence of Asian media in shaping attitudes towards body image and eating behaviors:

I also watch a lot of like Korean shows and stuff, and all the like Korean stars are always like- they're all like stick skinny and stuff and I feel like a lot of that plays into, you know, oh they look so good I wish I could look like them, maybe I should diet like them.

Taken collectively, participants actively discussed that there exist clear dichotomies of beauty in the United States versus their native Asian cultures. There were specific nuances for individual Asian cultures. For instance, Christine discussed the importance of the media and of Korean stars in determining beauty standards among Korean women. However, there appeared to be a general sense that, among Asian subgroups, the ideal that women should be small or "skinny" is prevalent, but this ideal is different from messages about appearance that permeate in U.S. culture.

## **Interpersonal Influence**

There were 2 subthemes that emerged under the major theme of interpersonal influence: immediate family or elders, and non-immediate family or close others.

**Immediate family/elders.** Seventy-four quotes were coded under “Immediate Family/Elders” across the 6 focus groups. Focus group participants often emphasized the influence of immediate family, especially in the form of elders (e.g. mother, father, grandparents), on body image and eating behaviors. *Grace*, an Indian woman (19), discussed how her parents and grandparents had expectations that she should be a certain weight or else she might suffer the consequences of being unmarried:

No matter how much I eat I just stay one weight. And um, this is like a problem to like, my grandparents and stuff like that, because they’ll be like, “Oh, if you’re not a healthier weight, like, you’re not going to get married one day.”

This sentiment was shared by another young Pakistani woman, *Kelly* (18), who reported that her family members stated that a curvier body shape was important for marriage and partnership.

This theme may be especially salient among South Asian American women and families, as the mention of marriage in relation to appearance was not discussed among other subgroups.

Immediate maternal family members’ influences seem to have particular salience across Asian subgroups. Several focus group members discussed the opinions of their mothers and grandmothers specifically in shaping attitudes about body image and eating behaviors. For instance, *Jess*, a Chinese woman (18), stated,

In my family, like, especially my mom and grandma, they don’t want to see me get big or gain weight but they’re just like, they don’t want me to starve either, so whenever I come

home from college they'll be like, "Oh, you gained some weight, but what do you want to eat?"

Jess discusses a problem that highlights the conflicting opinions and views of immediate Asian family members in relation to appearance and eating behaviors, i.e. that women in general are expected to appear slim, but are often encouraged to eat copiously. In addition, Jess's statement touches on the dichotomies of U.S. versus Asian cultural expectations about appearance and eating in that she tends to hear these messages while in contact with her family, but does not necessarily hear these messages when she is in a college environment.

Another individual, *Hannah* (20), discussed how her grandmother's influence extends to her own views of appearance:

My grandma, especially since she's only lived in Korea her whole life, and our culture is like, you see all the women, or just the way, um, the media advertises women – that they should have pale skin and be like, really skinny. So I think since she grew up with that atmosphere, she brought it along with her to America, so that's how we're learned to view ourselves ...

In addition to the above statements, several participants also remarked on how negative conversations about body and appearance occurred within the immediate family. For instance, *Danni*, an Indian woman (18) stated,

But like, pulling myself away from that and like, just seeing our generation, we don't bash the way our family does. Like, I had a little bit of a body image problem and it's not like I realized it there, because I thought it was just the norm.

*Hannah*, a Korean woman (20), remarked,

Based on experience, I was really chubby in middle school and my mom would always make fun of me for that. So um, like, whenever it was dinnertime, I used to eat a lot, but because of those constant nagging, I tried to eat less.

*Danni*, an Indian woman (18) said, “Like, mine {parents} would be like, we’d be driving to {the grocery store} and she’d go off, and I’m like, Mom! Like, every conversation we’d have a serious conversation and it’d end in a body image thing.”

These statements touch in general on the state of ease that immediate family members have when it comes to remarking about their daughter’s body image and appearance.

**Non-immediate family or close others.** The family unit in Asian culture does not just encompass immediate family, but often includes extended family. Indeed, many participants remarked on the input of extended family members including aunts, uncles, and cousins, in influencing body image and eating behaviors. Thirty-three quotes were coded under this category across focus groups. *Yonda*, a Vietnamese-Laotian woman (20) remarked that the presence of an eating disorder in an individual is not contained within the family, but will “spread around their society.” She continued to say, “They talk,” indicating that eating disorders may also be a point of gossip with non-immediate family or close others. *Christine*, a Vietnamese woman (19), stated,

I’ve always had this problem with my family, we’ve always like had discussions on you know our cousins being like overweight and stuff like that. Like we’d come back from Christmas break or something and all of our aunts and uncles would always be like “Oh, you gained a lot of weight”, “Oh, you should lose weight.”



Christine discusses the idea that in certain Asian subgroups, it may be common for non-immediate, extended family to freely voice their opinions about appearance and eating behaviors. These comments, in turn, may encourage individuals to engage in dietary behaviors in order to avoid these types of comments. This negative perception is seen in use of words and phrases with negative connotations (e.g., “problem,” “jabs,” “made fun of”).

*Mindy*, another Vietnamese individual (18), expanded on these sentiments. She said, ...when you meet um, other parents, like other aunts or uncles, um, they definitely judge based on what you’re like, how well you fit in that dress, or what you’re wearing, or what you look like compared ... to their son or daughter so like, there’s a lot of comparison going on in our cultures.

*Jade*, a Korean woman (18) stated, “My relatives are a lot more open about, like, criticizing your appearance [inaudible]. Like if they, like, if you put on a little weight, they’ll be like, ‘Oh you put on weight! Eat more! Eat more!’”

An Indian woman named *Veronica* (19) had a slightly different perception of immediate family versus extended family. She stated,

Honestly in my family, like, my mom has never, or like, my family in general, they’ve never been like, “Oh you’re too skinny or you’re too fat.” ... But when you go outside the family and you see your relatives from India, or like, see your relatives that live around here, they will probably say something like, “Oh you’re a little chubby” or “Oh, you’re little.” So I think, I don’t know, I get mixed signals all the time as to what their ideal thing is though.

Veronica indicates that while immediate family members may not engage in appearance-related comments with their daughters, non-immediate family members in the family often feel comfortable enough to do so.

### **Interpretation of Messages**

Based on attitudes developed within interpersonal and societal contexts, women appeared to make a conscious interpretation of whether or not these messages would affect them personally or not. Interpretations of these messages were found to be the central phenomenon in the development of tangible and intangible body-related behaviors, and encompassed 89 quotes across 6 focus groups. These interpretations presented themselves mostly in the form of comparisons leading to value statements about appearance. For instance, *Lisa*, a Nepali woman (18) stated,

I think one other side to that is media too 'cause um, as Nepali, I have, I have like grown up watching movies and everything, so like, when you see in the movie they're like all skinny and stuff, you're like, "Oh, why can't I be like that?" And then I think it puts pressure on people to be kind of like, like that, because I think that kind of body is idealized in this society.

In some cases, the disjunction of appearance ideals from the conflicting viewpoints of Asian and American cultures at both the systemic and interpersonal levels resulted in a negative overall interpretation of self-appearance. *Grace*, an Indian woman (19), stated,

I feel like for girls who are Asian and live in the United States there's already this [problem]- 'cause I know when I was younger ... I lived in Kansas, and ... I was a

minority and there were so many girls that were White and pretty and skinny, and it's just like I'm not White, I have to be pretty and skinny.

### **Disordered Behaviors or Adaptation**

Several subthemes emerged under the overarching themes of disordered behaviors or adaptation. For instance, facilitators of disordered behaviors included endorsement of messages about disordered eating and self-related challenges. Barriers to disordered behaviors included body positivity and peer support.

**Facilitators.** There were two main factors in the promotion, or “facilitation” of disordered eating behaviors among Asian American women in the focus groups: (1) endorsement of messages about disordered eating (31 quotes); and (2) self-related challenges (39 quotes).

Endorsement of messages about eating behaviors were discussed as resulting from listening to and internalizing messages from family members and the media. “Self-related challenges” is the term that is used to describe how participants reported mental health problems and internalized problems that were associated with eating behaviors. Several participants mentioned that lack of self-confidence plays a role in eating disorders. Anxiety was also mentioned a number of times.

In addition, the topic of ‘lack of control’ was discussed by several participants in relation to engaging in the behavior of disordered eating. For instance, *Yonda*, a Vietnamese-Laotian woman (20), said, “[Disordered eating behaviors are] not being able to control yourself [like] when it comes to eating and then, being too controlling about your eating habits.” Helplessness as a self-related challenge also seemed to be common, and *Yonda* also stated,

There's certain things you can't change. Like no matter how much you try, you can't make your skin lighter. That's not something you can physically do, so it's something that I guess hurts certain people. Um, not personally, but like, other people. And then it's not like they can do anything about their skin color, so.

**Barriers.** Two main barriers, or protective factors, for disordered eating presented in the focus groups and were associated with adaptation to body image: (1) Body positivity (10 quotes); and (2) Peer support (17 quotes).

Several participants discussed how the United States was generally more “body positive” than their native Asian cultures in that a greater variety of body types were seen as attractive in the U.S. *Sophia*, a Pakistani woman (18), stated, “I feel like here, everybody's taught to be, like, everyone's told that you're a special butterfly and you're like, however you look like, perfect just the way you are.”

The general theme of diversity in beauty in the United States was seen throughout focus groups, as was discussed in the theme of dichotomy of U.S. versus Asian culture. In *Sophia's* statement, she touches on the American sentiment of uniqueness as opposed to collectivism. This might be an indicator of endorsement of an individualistic versus a collectivist culture. Although individualism and collectivism have been discussed in terms of group behaviors on a general level, it also appears to extend specifically to women's body image as well.

Another participant, *Hannah*, age 20, stated that “[In America], people are protesting for women like, women should not care about how they look. They should embrace how they look.”

Messages about diversity in beauty seemed to extend also to peer communication and was mostly seen via statements about peer support. Several participants noted the dichotomy

between negative family interactions about body image and positive peer interactions about body image. For instance, *Danni*, an Indian woman (18), remarked on the generational differences between older individuals and younger women, stating,

I had a little bit of a body image problem and it's not like I realized it there {home} because I thought it was just the norm. But like, pulling myself away, like the first semester I was here {college}, I was like, whoa! This is weird, everybody's like, 'You look fine!'"

She goes on to remark about eating behaviors being different among peers versus family, describing that, "When I'd go out with my family, I wouldn't eat dessert. But when I went out with my friends, I'd eat like a whole dessert by myself."

*Christine*, a Vietnamese woman (19), described that, "Luckily for me, like, I came to college and I had the good friends that gave me confidence in my own body image, and I grew to love how I looked."

Overall, the concepts of body positivity and peer support seem to act as a barrier to disordered eating behaviors, and specifically restrictive behaviors. These concepts also appear to boost individual confidence in body image.

### **Treatment Endorsement or Alternate Solutions**

Two subthemes were categorized under this theme, including facilitators of treatment (e.g., the presence of available resources and familial support) and barriers to treatment-seeking.

**Facilitators.** Individuals discussed facilitators of treatment-seeking for disordered eating in the form of available resources (9 quotations) and familial support (17 quotations).

**Available resources.** Individuals discussed the presence of resources as a vital factor in an individual's decision to seek treatment for disordered eating behaviors. For instance, *Christine*, a Vietnamese individual (19) described that having a “nutritionist or to follow or to have a dietary plan” would be a good preventive measure for eating disorders. Other individuals, such as *Lisa*, a Nepali woman (18) described that having available finances for these types of treatments is key. She stated, “Maybe I’m just wasting my money to go to these therapies and stuff, so I think that’s one thing that might, she just might not go and stop going to therapy sessions.” *Mary*, a Chinese individual (19), also discussed that having financial resources is important: “Uh another reason I believe is like, her financing, if she’s able to pay for all the therapy because I think it’s expensive.” *Chloe*, a Korean individual (18), talked about the importance of resources in the form of family members with a medical background. She stated,

I did develop an eating disorder in seventh grade, and I would have to go to different therapies and stuff cause my family is pretty, my like close family is pretty uh, White-washed so they can like, they really believe in therapy and stuff. And my dad’s also like a doctor too, so he like, got me a nutritionist and everything ...

Time was another resource mentioned by participants in the context that individuals had to have time to attend these therapies and treatments in order to be motivated to go. For instance, *Natasha*, an Indian woman (19), stated that, “It feels like it’s not worth it, like the time you’re putting in is not worth it.”

**Familial support.** Participants also talked about the importance of familial support in their decision to seek treatment for eating disorders. *Hannah*, a Korean woman (20) stated, “If a woman like, really cares about how society thinks of her, then if her family is discouraging her to

like, get help, then she'll probably stop getting the treatment if her family's perspective matters a lot." *Sophia*, a Pakistani woman (18), contrasted familial support within an Asian family to that of a White family:

In our culture, it's very family-oriented. And like, even like, family friends become family, so like... like how she said, people talk, and i-i-it turns one little situation where if for example, if you were just like a Caucasian and you had an issue, I feel like your family would support you way more than an Asian family would support you 'cause they'd be like, "You're perfect, nothing's wrong with you."

*Grace*, an Indian individual (19), alluded to a potential lack of family support in that she would not be able to tell her extended family that she deals with mental illness:

My grandparents and extended family don't know I'm diagnosed with anxiety and depression. They don't know that I take meds for that. They don't know that I was like, in residential, um, and being treated for an eating disorder and stuff like that. Um, it's something I've had to hide from them and I feel like something that like, it's a huge part of my life, it's something that made me who I am and I feel like I'm just telling them, like some puzzle that's not completely finished.

Another individual identifying as *Grace* (Korean woman, 18), tied in the concept of familial support with ethnic identity. She stated,

...it's also like an Asian thing. We have a higher standard for our families, for ourselves, for our race, like we have so much pride in our race. ... when we are put into these programs where we know it's going to be good for us, a little bit of us are worried about judgment for our families, for ourselves, etc. ... and sometimes you might not have

family support ... the parents might think, “Oh, what is everyone else going to think because my daughter is in this program?”

**Barriers.** The biggest barrier to treatment seeking apart from lack of available resources (coded as “Available Resources” in the Facilitation section, seen above) was cultural stigmatization of mental illness. This concept presented in 37 quotations across groups.

For the purposes of this section, “stigmatization” is defined in both a negative and neutral sense. For instance, several of the quotations discuss a lack of acknowledgement that mental illness exists, which can be seen as neutral. Other individuals describe mental illness using a negative perspective, or mention that members of their cultural and ethnic groups see mental illness in a negative way.

*Sophia*, a Pakistani individual (18), described a lack of acknowledgment that mental illness exists when she stated,

I personally have a lot of Asian friends that tell me that if they ever went through depression, their parents would be like, ‘No, nothing’s wrong with you. You’re fine.’ But like, if you were a Caucasian, they’d be like, no we need to trigger this out, let’s help you.

In terms of viewing mental illness negatively, some women reported that older Asian generations might acknowledge that something is wrong with their daughter, but do not attribute the problem to mental health. For instance, *Grace*, a 19-year-old Indian woman stated,

Um my parents don’t believe in mental disorders at all, for some reason. Um, I guess it’s not like a prevalent thing there [in India], and there’s never anything, like, they never, like, got medication for depression or anxiety, and I’m diagnosed with depression and



anxiety, and I had an eating disorder at some point and it was the most difficult thing to deal with, because they're like, "You don't need help, you just need to eat more."

Grace's statement highlights the impact that stigma around mental illness can have on motivation to seek treatment for these disorders among young adult Asian American women.

Another individual, *Kelly*, age 18, expanded on this point in regards to a Pakistani friend:

One of my friends actually has really bad anxiety and she doesn't eat, like she wakes up with night terrors and everything and like, her whole family, even her sisters who are born and raised here, like they just don't think she has any problems, even though she wakes up screaming and she wasn't doing well in school and everything, and um they were all just like, "No, um, you should just pray more or you just need to focus."

One individual, *Sydney*, a Filipina individual (19), took a different perspective on cultural stigma of mental illness, stating that a lack of seriousness about the field of psychology is to blame.

Yea, just like society, there's like, "Oh she, they're just crazy, there's nothing really going on" and the brain is so complex, like studies aren't really helping well, not well, they are, but not like very much, so that leads to family members being like, "No, you don't need all that [psychological treatment], you're just being ridiculous."

Overall, individuals expressed the sentiment that family members were the primary individuals who did not believe in mental illness, or that mental illness could be treated via methods other than psychotherapy or via psychological counseling.

## **African American Groups**

Four focus groups were conducted with African American women from December 2015 to February 2016 ( $N = 21$ ). I was the facilitator for the focus groups, and a trained research assistant who identified as African American was present to take detailed notes about group processes. Focus groups lasted between 20 minutes to 2 hours each and were held in a private and secure location. The final sample included 21 African American women ranging in age from 18 to 30 ( $M = 22.65$ ,  $SD = 4.32$ ). The age range for the African American groups was slightly higher than that of the Asian American groups because some women were recruited from the community, as well as the university.

Themes from the African American groups slightly differed from the Asian American groups, but maintained a similar thematic structure: (1) Cultural Influence; (2) Expectations for Black Women; and (3) Intrapersonal Influence. Twenty-six prevalent themes were grouped under these overarching categories. Themes were relatively similar to the Asian American groups, especially at the Individual Influence level. Figure 4 presents the social constructivist grounded theory model developed from focus group data, entitled, the “African American Body Image Evolutionary Model.”

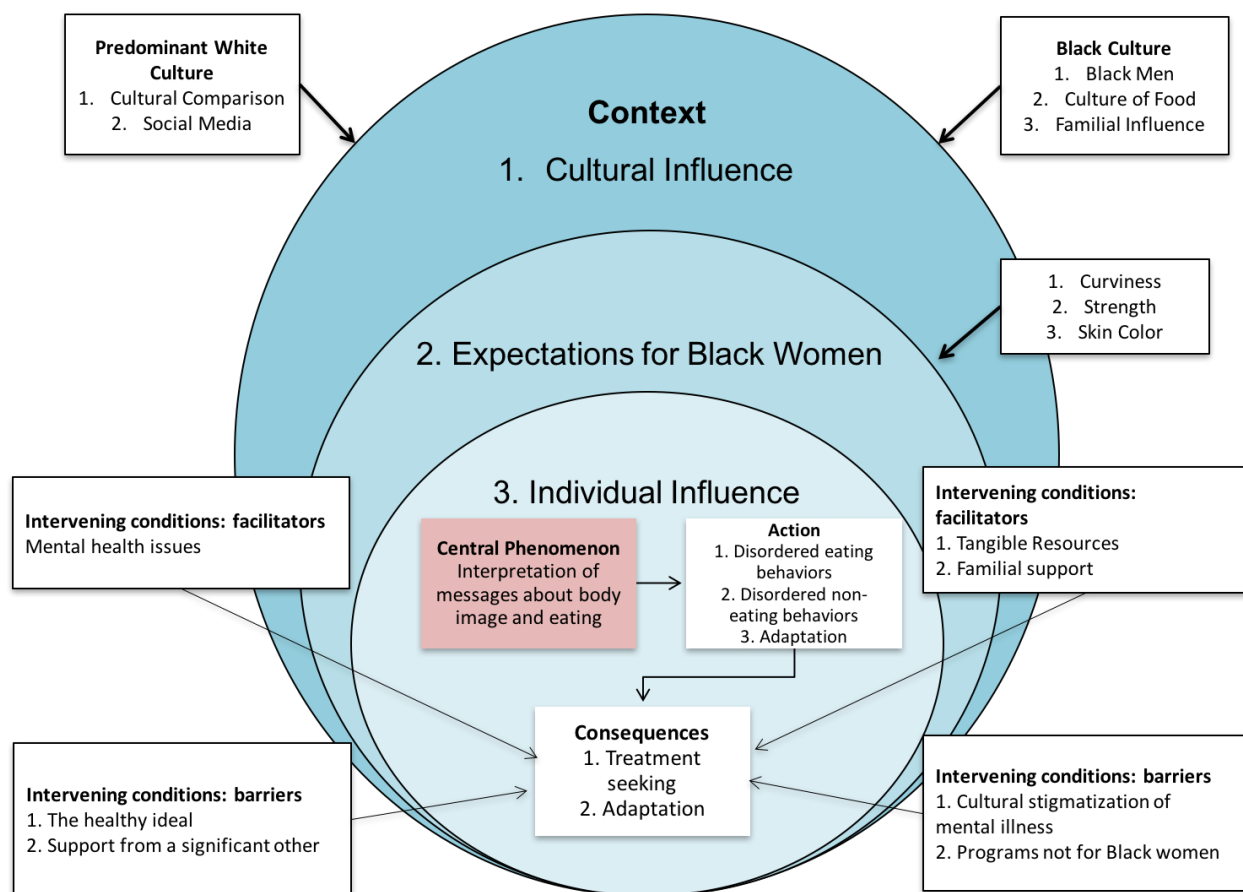


Figure 4. African American Body Image Evolutionary Model

The three most prevalent that emerged from focus groups with African American women were those of 1) Cultural Influence; (2) Expectations for Black women; and (3) Individual influence. Of special consideration is the often-interwoven discussion of these influences, especially in regards to cultural influence and expectations for Black women.<sup>2</sup> However, overall, these overarching themes emerged as distinct, and in turn, led to the central phenomenon of

<sup>2</sup> It should be noted that most women in the focus groups used the terms “African American” and “Black” interchangeably. Thus, these terms are used interchangeably throughout this section.

interpretation and subsequent disordered or non-disordered behaviors. A subsequent discussion of relevant themes follows.

### **Black Culture**

At the forefront of the discussion was the influence of Black culture on the development of body image ideals among Black women. Most notably, discussants mentioned the influences of Black men, a culture of food, and the influence of the family unit in promoting these attitudes.

**Black men.** Sixty-six quotes across four groups were coded under “Black Men.” Several women across the focus groups discussed the influence that men, and more specifically, Black men, had on the development of ideals about appearance. For instance, *Michelle*, a 25-year-old woman, described that Black women aspire to reach the ideals of Black men, stating that,

We want to be what they want us to be, so what are they looking for, what do they want, well, they want this and they want that, and if we ain’t got this or that, we’re trying to find some this or that.

Her statement indicates that Black women feel inadequate if they don’t meet the ideals of what Black men want, and they will often try to compensate by molding themselves into those ideals.

This inadequacy was highlighted during other conversations as well. For instance, one participant, *Serafina*, age 20, stated,

It depends on the opposite sex. They may favor more of a certain body image, and if you don’t have that body image, you’ll wonder, well hey, what’s wrong with me? Or can I adjust myself to look like I can have that body image so I can be liked by the opposite sex AND by others?

Women across the focus groups also discussed how Black men seemed to use skin color as a criterion for relationships. For instance, *Beyoncé*, a 25-year old woman, stated,

I heard a lot of black men say that they would date a light-skinned woman, they would marry a dark-skinned woman because they see a dark-skinned woman as some woman that you settle down with who's respectable, who they want to be with...

**Culture of food.** Twenty-six quotes were coded under “Culture of Food” across the four focus groups. Many women throughout the focus groups discussed the influence of a culture of food within the African American community in developing attitudes about body image and appearance. Overall, there were 23 mentions of a culture of food across focus groups.

*Mom*, a 24-year-old woman, discussed the impossibility of Black women developing eating disorders based on an expectation that many occasions in the African American community are centered around meals and eating.

The barrier would be someone not taking them seriously. Like in our culture, eating's not so much an issue. Baby, you need to eat to live. [Yeah!] You know, every remedy. You know, you could be sick, eat! You could be heartbroken. Eat, baby!

*Michelle*, a 25-year-old woman, discussed other occasions centered around food, stating that even during natural disasters, eating is at the forefront of African American women's minds:

You go to church! The after-Sunday meal. We cook it, you know. Every holiday – whose grandma's house we going to? Who cookin? [Audible agreement] That's the first thing we think about [inaudible] We gonna get a plate you know.

One participant, *Kim* (30), discussed how this culture of food and the expectation that Black women will overeat may result in attitudes about body image:

I know for my family, a lot of overeating happens. Um, I wouldn't say dissatisfaction, um it's more of eating until you're satisfied. And ... we cook a lot of food, we cook, and we're expected to eat a lot, and well, at least in my family and so, when that didn't happen, as far as with ME, you know, it was like, it was very misunderstood. They didn't understand at all.

Other participants discussed how the type of food prevalent within African American culture may promote a curvier body type. For instance, *Serafina* (20) stated,

Um, I think it's, it's just based off the food choices that we make ... a lot of um, African American people, they'll connect food with your body image, like if you eat cornbread or collard greens you'll get this [laughter], or you know, you have to maintain a certain figure because that's what certain men like. And things like that, so. I think that's how it starts.

**Family unit.** The family unit, and especially the influences of mothers and female relatives, seem to have an impact on the development of body image and appearance attitudes among African American women. Overall, 83 quotes were coded under "Family" across the four focus groups. What became apparent throughout groups is that many women compared themselves to others within their own families. For instance, *Sarah*, a 27-year old woman, stated the following:

My first cousins who I was with a lot, they were thin, by comparison you know and I wasn't a large little girl but just in comparison to them I was bigger ... I was the little fat girl amongst the group and so you kind of grow up and you think well, I want to look like them because those, that's who your closest to ...

*Beyoncé*, a 25-year-old woman, stated,

It was Thanksgiving, I was 10 years old. And my aunt told me I shouldn't have another piece of cake because I was gonna get too fat. And I was gaining weight or something like that. And at that moment, I was like "Oh my gosh I'm fat." I have to fix this...

*Terri* (19) stated, "My family are, always refers to me as skinny cause my sister, my mom, they're all curvy, and I'm like the only one that's kind of skinny." *Fiona*, a 20-year-old woman, discussed that these ideals expanded also to traditional African households:

Growing up in Africa, I really think that um, they kind of put it in my head that it was natural to have, you know, the curves and everything, so when growing up, I was really skinny. ... I thought that I was like, abnormal for some reason, that I didn't have, like what my aunt had or what my mom had, you know, or what my older sisters had.

*Jessica*, an 18-year-old woman, stated,

Um, uh, like within my family, it's a lot like, the females are like, curvier and things, so like, growing up, I was like always waiting for that to happen to me, so like I thought, like people who weren't like that, like not that something was wrong with them. I was like, like the curvier people, they look better. I guess, so.

### **Predominant White Culture**

The influence of identifying as a racial or ethnic minority in a predominantly White culture varied across participants. However, most of the women discussed this culture in terms of comparison with Black culture or in terms of social media. Discussion around other forms of media was not as prevalent as social media, which seems to pervade this age group.

**Cultural comparison.** Overall, 43 quotes were coded under “Cultural Comparison” across groups. When speaking specifically about eating behaviors, a lot of women discussed eating behaviors among White girls in comparison to Black girls. For instance, *Tribe*, a 26-year-old woman recalled the following memory:

I remember when I was in seventh grade, and these were girls they weren't Black, they were White, but their moms would pack them all this lunch, and then they would just eat a yoghurt, and I'm like what in the world. But I was fortunate that ... I never felt ... that pressure at home, but I feel like it affected me. Like, well they're really skinny, and they seem nice, and you see that in the TV...

Women went on to discuss differing beauty ideals in African American culture versus White culture. Several of the women talked about how, within predominantly White culture as a whole, traditional traits of African American women were not seen as attractive. For instance, *Mom*, a 24-year-old woman, stated, “You're not good enough. We can have your babies and (inaudible) but we cannot create beautiful babies.”

*Beyoncé* also spoke the sentiment that individuals who appear more European tend to be seen as more attractive than women with “traditionally” African features:

I think there's a predominantly a white or European presence and a lot of the features that transcend, that people revere in different cultures, tend to be White or European, like thinner noses, lighter skin, lighter eyes, straighter less kinky coarse hair.

In this quote, Beyoncé not only speaks to ideals within the United States, but also cross cultural ideals that seem to uphold more European features as more attractive. Women also went on to



describe that not meeting these European ideals may affect their health-related behaviors. For instance, *Michelle* stated,

You have to go down like, you know, being in America, you have to try to fit that European standard. And your body might not naturally assimilate to that right? So that's a constant you know, struggle for people, and you might think instead of working out, here's the alternative.

*Kim*, a 30-year-old African American woman, stated, "And we, African American women, also look at White women as examples of how maybe we should look." The contrast in body type and appearance expectations may result in unhealthy behaviors to try and rectify these differences.

Some African American women spoke of the struggle they experienced within their own community if they *did* meet some of these European standards of beauty. For instance, *Terri*, a 19-year-old woman, said:

I've always been referred to as the "White girl" in the Black girl body or saying, like people call me "Lil Bit," "String Bean" stuff like that, or they just see me as a really tiny person in compared to everyone else it's like, I feel as, I feel like I'm the outcast or out of place because all my fellow African American women have way more than what I have. So yeah.

**Social media.** Several women mentioned the influence of social media and of certain celebrities promoting a certain body ideal via social media outlets including Twitter and Instagram (19 quotes). For instance, *Star* (19) discussed the influence of social media in

promoting comparison on the viewer, “And also on social media, I notice that there are a lot of like, celebrities with very um, big butts and boobs [laughs] stuff and I don’t have that.”

*Smiley*, a 28-year-old woman, discussed how women on social media may perpetuate unrealistic ideals:

I’m not a Twitter user but I’ve heard (laughter) on Twitter and Instagram just have pages upon pages upon pages of women um that either are naturally like that, work out like that, surgically enhance themselves like that, and pose themselves like that and those are the ones that get ‘cause you know some people their life is Instagram getting how many likes.

*Terri* (19) adds that race and ethnicity did not matter in the promotion of these images:

A lot of it has to do with social media. So like, celebrities, and like, the fact that they influence all of our cultures, whether they’re African American, White, Latino, any culture, um, society automatically chooses them as having the “perfect body image.”

### **Expectations for Black Women**

Several women discussed the expectations that they feel are placed on Black women in terms of personality and appearance. These expectations were grouped into the categories of Curviness, Strength, and Skin Color across focus groups.

**Curviness.** Several women spoke to the expectation that African American women should appear curvier than not (24 quotes), especially in terms of having a bigger bust and rear.

*Michelle*, a 25-year-old woman, stated, “I think amongst our com- African American community, it’s always a competition, you know. Who has the biggest bust, or biggest, or

smallest waist and wider hips, and bigger lips, and smaller you know.” *Smiley*, a 28-year-old woman, said,

I know I won’t always feel like I can be too in shape cause I’m going to be far away from the “ideal black woman” and I have a feeling that maybe other Black women are hesitant to go to the gym and may lose some of their curves cause then they aren’t going to be what a man is looking for.

Women across focus groups discussed curviness as being an important appearance trait among African American women, but there was a thin line between “curviness” and “obesity.” For instance, *Ana*, a 19-year-old woman, stated:

I think that African American women, if they’re seen as curvy, they’re more beautiful than someone who has, who’s like a size 2, maybe. But then, as, once an African American woman reaches a certain weight or something she’s considered “obese” and she needs to do this and that to maintain this type of body image, so I think that that also plays a role.

Other women discussed this very particular ideal, stating that women should not “exceed 180 pounds” (*Jasmine*, 20), “They want you to be big and curvy, but your weight gotta be in the right places for that too,” (*Michelle*, 25), and “Once you get too thick you start getting fat, so then it’s like, it’s like that thing and so that fine line that what you see” (*Mom*, 24). Overall, although women across focus groups did not adhere to the thin ideal that is seen in predominantly White culture, they endorsed an ideal that was curvy, but not obese.

**Strength.** The strength and personality traits of Black women were often juxtaposed to a perception that White women tend to be more passive (14 quotes). For instance, *Michelle*, a 25-

year-old woman, stated, “We're, we're more argumentative, they're {White women} more passive, we're more yea umm. And I mean, I think we naturally have the way society has put it we end up being more jealous of them or feel like we have to battle with them.” *Cyah*, a 19-year old woman, said, Cause um, I know they would try to say our culture is like, more strong, we're known to be “strong” for what we go through. But we have to do so, I would say...” *Alana*, an 18-year old woman, discussed this expectation in relation to mental illness:

I think that in like, the Black community, any type of disorder is kind of just frowned upon. And I think it's because of like... older generations can't really understand it. Like, anxiety and stuff like that, are really big and our age today, so, and it wasn't before I guess. So, it's just hard to relate to stuff like that, so it's hard to talk to other people and Black women are looked at as “the strong, independent women” of the community...

Overall, strength seemed to be a common expectation among Black women and may affect their overall feelings about themselves and how they cope with stressors such as eating disorders and mental illness in general.

**Skin color.** Some discussion around skin color occurred across focus groups, with 25 quotations being coded under this category across the four focus groups. In general, women across the focus groups perceived that lighter-skinned Black women were perceived differently from darker-skinned Black women. For instance, *Cheetah*, a 19-year old woman, stated that, in terms of healthy body image, “I would say a lot of young African American women, like my sister um, she says her skin tone is part of her body image, and people say her skin tone is dark, so she doesn't you know, fit in with the crowd, with light skin.”

*Michelle*, a 25-year-old woman, discussed her own bias against dark-skinned versus light-skinned Black men, stating:

And I have that same bias against light skin but this is more of again that color you know that color discrimination, when I see a light skin man I think of weakness but when I see a tall dark chocolate man I'm like he is strong (laughs). ... I don't know and that's just a thing ... I have no desire to be with a lighter man.

As for perceptions of dark vs. light-skinned women, several women discussed that dark-skinned women had different personality traits than light-skinned women. For instance, *Mom* (24 years old) said, "Dark skinned women are, are harder, just aggressive."

### **Interpretation of Messages**

Similar to Asian American women's groups, the central phenomenon seen in the development of decisions to seek versus not seek treatment for eating disorders among African American women was the interpretation of messages around body image and eating disorders (40 quotes). *Tribe*, a 26-year-old woman, stated the following:

You want to respect what your parents say, but you probably spend more time with your friends and outside of home so it's hard when you constantly hear someone being negative, and even if they mean it as a compliment it you got to you know, okay if it's a compliment you have to live up to that you know, oh you have a nice shape so you got to do everything you can to keep that shape.

Tribe alludes to the influences of family and friends in the interpretation of messages about body image and the decision to engage in behaviors that retain a certain image. Another participant, *Sarah* (27), discusses that society is another prevalent influence, and having a certain appearance

will lead to more positive outcomes: “I think too we often see or are told depending on how your body looks, you’re more successful you know, depending on how your body is you’ll get further or you’ll do this or you’ll do that.”

The societal influence of White culture in the media seemed to especially affect Black women’s interpretation about messages. The influence of White culture also extended to everyday interactions of African American women within a predominantly White context (e.g., attending a predominantly White school), as was seen in the section on Cultural Comparison.

In addition to the influence of a predominantly White culture, African American women’s own cultures seemed to especially affect interpretations of messages about body image and eating behaviors. For instance, *Terri*, a 19-year-old woman, stated,

When you don’t have it [curviness], at the same time, you kinda ask yourself like, well if it’s normal or natural to have it, then what’s wrong with me? Like, is it something medically wrong? Like, for me personally, I can’t gain weight, I’ve never reached over 100 pounds, it just doesn’t happen no matter how hard I try.

*Jessica*, an 18-year-old woman, said,

Um, uh, like within my family, it’s a lot like, the females are like, curvier and things, so like, growing up, I was like always waiting for that to happen to me, so like I thought, like people who weren’t like that, like not that something was wrong with them. I was like, like the curvier people, they look better. I guess, so.

Overall, it seems as though the influences of a predominantly White culture, Black culture, and especially expectations for Black women, were integral to leading to the central phenomenon of interpreting messages about beauty among Black women.

## **Disordered Behaviors or Adaptation**

Disordered behaviors or adaptation to appearance were potential outcomes from the central phenomenon of interpretation of messages around body image and eating behaviors among African American women. Disordered eating behaviors (40 quotes) were defined broadly in this group. Women recognized eating pathology as encompassing a range of disorders, including binge eating, bingeing and purging, restriction, and even trying an alternative diet that was meant to reduce body weight (e.g., veganism). Non-disordered eating behaviors (11 quotes) included a variety of behaviors that could be considered disordered, but did not involve eating. These behaviors included mentions of “booty shots” (i.e., using collagen fillers in the buttocks), “over-exercising,” and “contouring,” which a participant described as “makeup and highlighting as far as changing your face.”

These outcomes were either suppressed or encouraged via a set of facilitators and barriers. The primary facilitator (i.e., factors that encouraged the development of disordered behaviors) was mental health issues. Intervening conditions (i.e., factors that were more likely to lead to adaptation) included attaining a healthy ideal and support from a significant other.

**Intervening conditions: facilitators.** A subtheme emerging under the category of “facilitators” for disordered behaviors was mental health issues (14 quotes). One of the major “mental health issues” mentioned by participants was the concept of control. For instance, *Kim* (30) discussed how she developed an eating disorder as a result of feeling control issues:

At first it started off as a control issue. Um, personal control issue. ‘Cause a lot of my, things going on in my life was, seemed out of control. Um, then it developed into, I

wanted to be skinny. And maintain a certain weight. And um, that just, it just became out of control.

*Smiley*, a 28-year-old woman, also maintained the belief that control was a major factor in the development of eating disorders:

I see [eating disorders] as a psychological need to control other things in your life, like sometimes people will modify their eating habits, maybe eat excessively as a comfort thing or eat not enough, because that's one thing they do have control over in their life, because they feel like they don't have control over anything else.

Apart from control, some individuals mentioned other mental health issues as integral in the development of negative body image and the subsequent development of eating disorders.

For instance, *Ana* (19) said,

I also think that depression might be a major factor in one's body image especially if it's negative, so a person might have, like constant negative thoughts towards themselves thinking, "Why don't I look like this? What can I do to look better?" And just constantly worrying about their body instead of accepting themselves for who they are.

*Alana* (18) also discussed self-esteem as complicit in the development of disordered eating behaviors, "It could have a lot to do with like your self-esteem and how you perceive yourself. Not only how others perceive you."

**Intervening conditions: barriers.** The two primary barriers to disordered behaviors that emerged in the African American groups were 1) the healthy ideal (12 quotes); and 2) support from a significant other (14 quotes)



The “healthy ideal,” as defined in the Body Project intervention is “the way your unique body looks when you are doing the necessary things to appropriately maximize your physical health, mental health, and overall quality of life” (Stice et al., 2013b). Women discussed trying to attain this healthy ideal as an effective divergence from engaging in disordered behaviors. For instance, *Beyoncé* said, “I eat healthy. I take care of myself, instead of fixating on not being fat, it’s making sure that I eat the right food to nourish my body.” *Mom* discussed attaining the thin ideal as being important in having positive body image develop among her children:

I also remember thinking my mom made nothing but French fries, hot dogs, hamburgers, you know what I mean? Well if she wouldn’t have done that I wouldn’t be around that now, so I make it a point to cook healthy, and buy healthy and stuff like that because it is – you do impact your children.

The other barrier to developing disordered behaviors that became prominent throughout focus groups was having emotional support, mainly in the form of a significant other. *Terri*, age 19, discussed the importance of her partner in maintaining a positive body image:

But, I from personal experience, to find somebody, like a significant other, that can truly make you feel that way, can make you see that you’re beautiful .... So it’s like, just having that [inaudible] from someone else can help you a lot.

*Kim* (30) also discussed how her husband was integral in preventing her from exacerbating her eating disorder, “And um, my husband saw that I was losing weight. And he didn’t understand it. And he saw that I was basically killing myself. And um, he forced me to go see a doctor.”

What Kim and Terri talk about is the presence of an emotional support system that is important not only in preventing eating disorders, but is also important in the decision to seek treatment once an individual develops disordered eating behaviors.

### **Treatment-Seeking**

In general, women spoke of eating disorders and treatment-seeking as they related to other mental health disorders in these groups. Facilitators of treatment-seeking included the presence of available resources and familial support, and barriers to treatment-seeking were three-fold: 1) cultural stigmatization of mental illness, and 2) programs were not culturally appropriate.

**Intervening conditions: facilitators.** Facilitators of treatment-seeking included presence of tangible resources (16 quotes) and familial support (10 quotes). “Tangible support” was mentioned in several forms. For instance, participants discussed the importance of resources such as “finances,” “insurance,” “transportation,” and “time.” These tangible resources all made it possible for a woman to seek treatment for eating and other psychological disorders. *Alyssa*, a 20-year-old woman, discussed the frustration a woman might go through if they do not have time in their schedule for treatment:

If you have a super busy schedule and you’re trying to schedule around it, or you have to reschedule it and then something comes up, you just end up not going to it because you have too many things going on in your life. And ... when you have too many things going on, then you don’t want to stress about that because sometimes you may think that you’re better and that you don’t need it anymore, and then you just leave.

Another facilitator in the decision to seek treatment among African American women was familial support. *Michelle*, a 25-year-old woman discussed how lack of support may prevent an individual from staying in treatment and may even result in relapse:

That she doesn't have the support at home. [Audible Agreement]. You're gonna need friend and family support ... stuff like that, you can't go it alone. You got that support when you're in the facility, but you need that support so you don't fall back into the same cycle that you got yourself in.

Michelle alludes to the importance of having support in the form of family members who encourage a woman with an eating disorder to stay in treatment. *Kim* (30) also talked about the importance of support when she stated, "The support is not there. Um, but then the family, 'cause they don't understand ... you literally have to send them links for them to read so they can better understand what you're going through."

Even though the participants discussed lack of these resources as barriers, I chose the presence of these resources as *facilitators* to treatment-seeking, as it seemed that women would be more motivated to seek treatment for disorders if they had these supports.

**Intervening conditions: barriers.** Primary barriers to treatment-seeking among African American women included: 1) cultural stigmatization of mental illness, and 2) programs are not culturally appropriate.

Overall, there were 24 quotes around cultural stigma of mental illness. *Sarah*, a 27-year-old woman, stated,

And our culture too doesn't often like to, um, acknowledge illnesses like [eating disorders]. I mean, it's getting better now, I feel like, this being acknowledged more and

our children are getting diagnosed if they have different issues, but at one point it was like, why do I need to take my child to the doctor? They don't have anything wrong, they'll grow out of it, or it's nothing a little whooping won't fix.

*Serafina*, a 20-year-old woman, said,

Um, personally growing up in my household, my mom's like, if you got a problem, you don't take it, your problem outside of the household like, what goes on in this house stays in this house. And I guess unlike with White people, if you have a problem, you don't really take it to somebody else, you discuss it with your family or you go to church for it, you don't go outside and tell everybody about the problem.

Both Sarah and Serafina alluded to a coping process in African American culture during which individuals (and particularly parents) may choose to ignore the presence of a mental illness in their child. As opposed to seeking treatment for the child, they would choose to deal with the problem an alternate way.

Another major barrier to seeking treatment among African American women was that programs do not seem to be culturally appropriate among this group (10 quotes). *Kim* (30), drove this point home when she said, "It would be scary for me if I had to go away to a treatment facility. I mostly see that as for the "White" culture." Another participant, *Cyah* (19) gave an anecdote on her experience with treatment:

Um, I had to go seek treatment, but it wasn't for like, eating disorders. And my experience there, it was like, it was, it was like a box. Being in a box, and you just wanna go, it's like they keep you confined and they make you like, I guess, express your feelings ...

Cyah also talked about her experience feeling isolating in that there was only one other girl there that “looked like me.” She emphasized the lack of tailoring when she continued to say,

If there was more people that were like us, and had the same, you know struggles as us, we’d be more open to say what’s wrong. But it’s just like, it was mainly Whites, so. And, I don’t know, I felt like they were treating us like we, like why are we here? Like, basically, so it’s just like, you guys like... I don’t know, it’s just... it was different. It was definitely different.

### **Summary of Study 1**

The purpose of Study 1 was to enhance understanding of body image and eating behaviors among African American and Asian American women in order to develop a 30-minute cultural pre-treatment for Study 2. The process of developing attitudes about body image and eating begins at the individual level (Major Theme 1) and is affected by the contexts of interpersonal (Major Theme 2) and societal influence (Major Theme 3). In the process, women begin to develop attitudes towards body image based on external sources. From focus group discussions, it appears that messages that are perpetuated by societal influences and U.S. cultural media messages. In addition, messages transmitted by immediate family members, extended family members, and peers create thought processes and cognitions which may manifest in a number of different ways. Findings from the focus groups were used to develop the cultural pre-treatment for use in the pilot intervention.

### **Development of Cultural Pre-Treatment**

After completion of the focus groups, the next step was to develop a pre-treatment protocol to accompany the pilot intervention. Given that this research is rooted in both Cognitive

Dissonance Theory and Deep-Structure Cultural Adaptation, it was important to incorporate discussion and activities that adhered to these theoretical perspectives. In addition, the emerging theories of the *Asian American Body Image Evolutionary Model* and the *African American Body Image Evolutionary Model* pinpointed two specific areas for intervention in the development of eating disorders.

The first point of intervention is at the intrapersonal level, before an individual interprets messages about body image and eating behaviors from external influences. Once messages are interpreted, individuals can choose either to engage in disordered behaviors, or to adapt to their appearance and eating habits. The second point of intervention is after an individual chooses to engage in disordered behaviors. At this point, changing an individual's opinions around mental health and eliminating cultural stigma around mental illness is essential to motivating them to seek treatment for any mental problems they may have. The pre-treatment was designed to address issues at these two points of intervention.

The process for developing the pre-treatment involved several steps. First, I took the major themes from the qualitative groups and developed an outline. Next, I took existing protocols for manualized one-session treatments and, along with the outline, created a set of parameters such as time length and number of sections. Finally, I developed rough drafts of the protocols, which were then refined and edited for use with participants.

## **Process**

In the first step, I took major themes from the African American and Asian American groups and developed an outline of major themes to be incorporated for each group. Figure 5 presents the outline for the Asian American group, and Figure 6 presents the outline used

for the African American group.

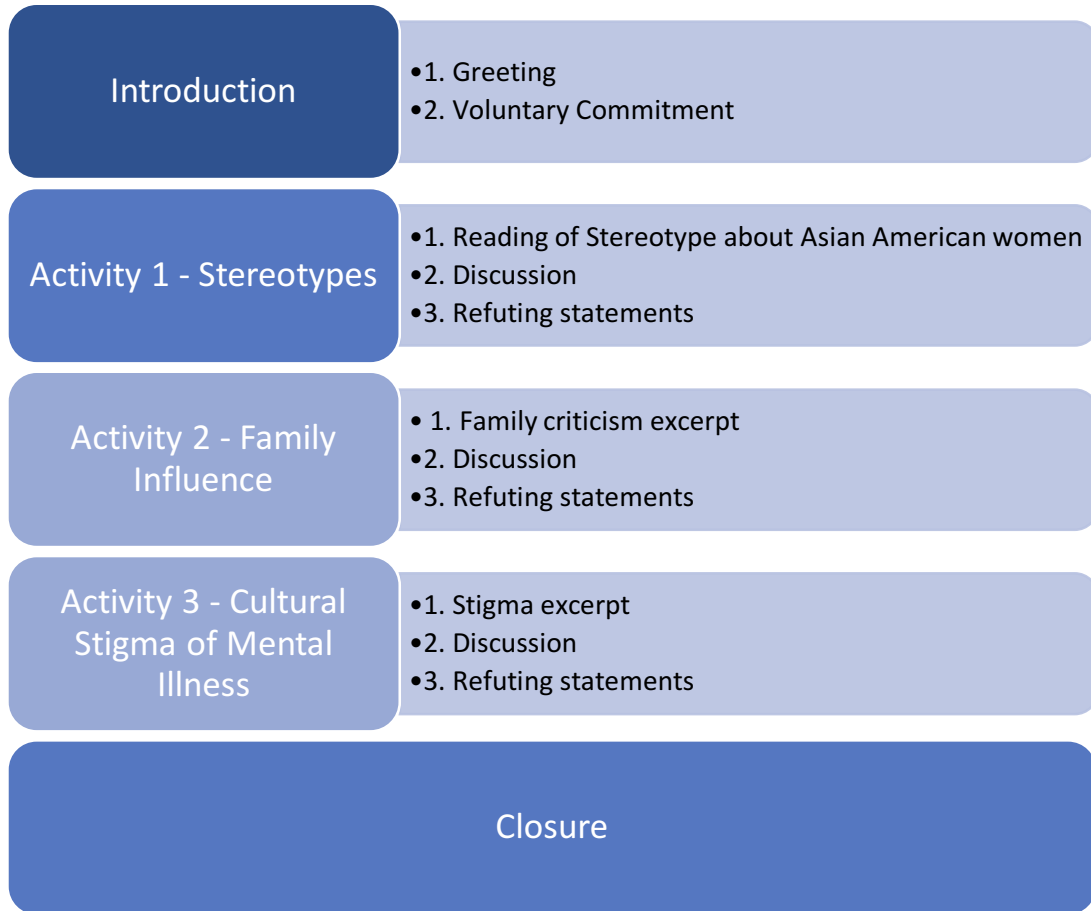
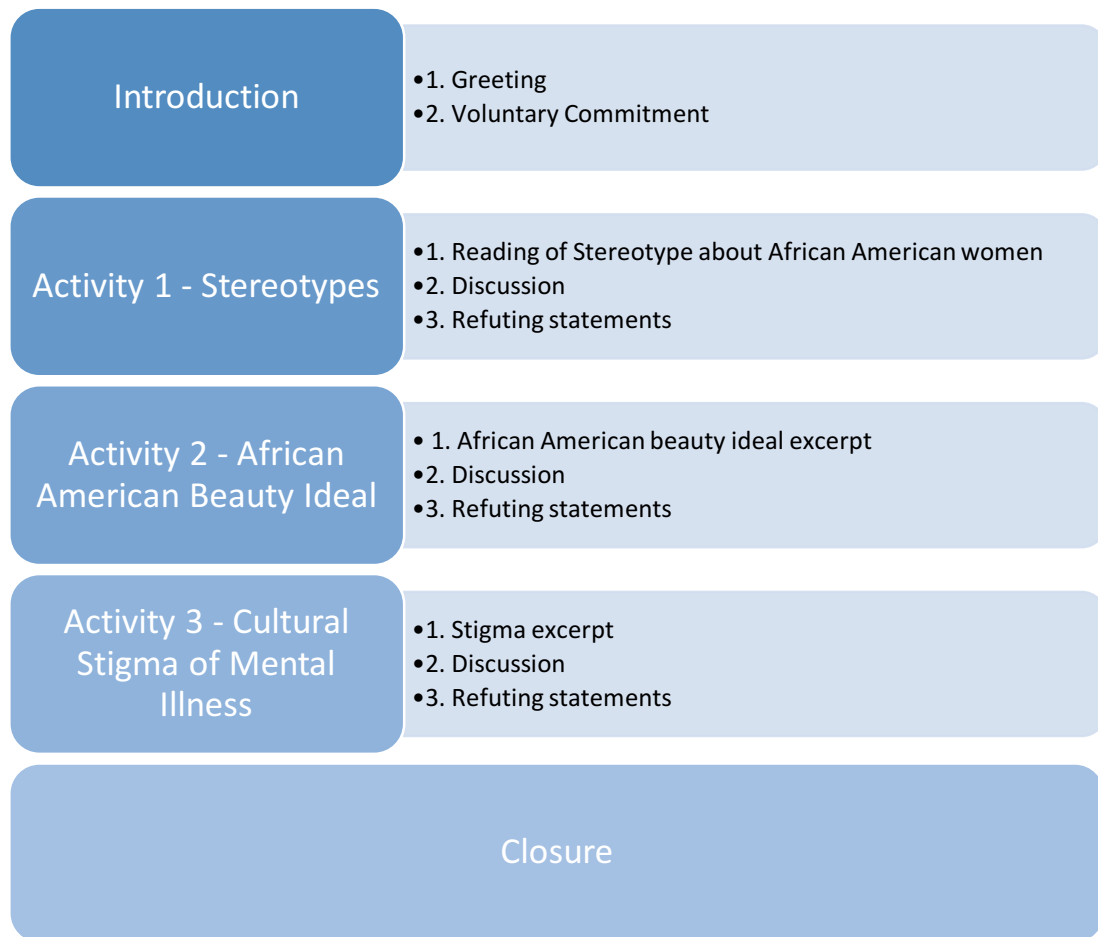


Figure 5. Outline for Asian American pre-treatment protocol



*Figure 6.* Outline for African American pre-treatment protocol

For both groups, it was important to address central themes from the qualitative analysis, but also to condense material in order to retain participant interest and motivate them to return for the intervention sessions. Three discussion topics were created for each population, and addressed overarching themes from the focus groups. Before finalizing protocols, the developed manualized protocols were sent to my graduate advisor and refined.

**Pre-treatment protocol for Asian American group.** For the Asian American groups, the primary categories of societal influence and interpersonal influence were integral in creating attitudes about body image and eating behaviors. From the overarching category of societal influence, Asian women talked about the dichotomies of Asian and mainstream U.S. culture.



They spoke about how they often felt as though these two influences were in direct conflict with one another and how they were influential in developing attitudes about body image. To address this “cultural gap,” the first pre-treatment segment covered stereotypes about Asian American women. The purpose of this “stereotype” activity was to gauge women in discussions around their perceptions of how Asian American women are presented in a dominant White culture. Because there were several subgroups of Asian American women, I researched examples that spanned different ethnic groups for use in this activity. The pre-treatment then became more tailored by these examples according to how women identified their subgroup ethnicity (i.e., from their baseline demographic questionnaire). Quotes used in this activity were obtained from popular media, news articles, and academic books. For instance, the following quote was read to individuals identifying as Eastern Asian (e.g., Chinese or Korean):

*From a Reddit thread about Asian American beauty:* “Ultimately, I don't think many Asians who strive to achieve the strict East Asian beauty standard are trying to look white. They're trying to look pretty, according to their culture's standards of what that is-- they're trying to look like pretty Koreans or pretty Chinese or whatever.” (Reddit, 2017)

After reading a quote about an Asian American stereotype, the participant was then asked to talk about any experience they may have had in hearing that stereotype, or if they had ever experienced discrimination based on their ethnic appearance. Finally, to tap into a participant’s potential subconscious decision to engage in these stereotypes, they were asked to come up with ideas on how to combat stereotypes and then were asked to reaffirm these ideas.

In the second pre-treatment segment, I aimed to address the second overarching influence on body image of interpersonal context. Given that the input of immediate family members and elders were more often quoted in focus groups than the influence of non-immediate-family, this

became the focus for the second segment. The following passage about a family criticism was taken from focus groups and read to participants:

In our culture, there are a lot of gatherings. So when you meet other parents, like other aunts or uncles, they definitely judge based on what you look like. For example, how well you fit into that dress that you're wearing, or what you look like compared to their son or daughter. In general, there's a lot of comparison going on in our culture. My own relatives are a lot more open about criticizing appearance than my friends' relatives. If you put on a little weight, they'll comment on it. They'll also compare my cousins and I to earlier generations back in their own country, saying that people my age are skinny over there while we're so fat over here.

When I came home for Thanksgiving, the first thing my relatives said when they saw me was, "Oh you look different." They were directing that comment towards my weight. I'm like, that's the first you're gonna say? Okay! They didn't even say hi. They just commented that I was skinnier, and basically said, "Keep doing that."

Then, I asked whether they had experienced a similar criticism or interaction within their own family, and then asked them ways in which to combat that type of criticism.

In the final pre-treatment segment, cultural stigma around mental illness was addressed via another quote from focus groups. The quote is seen below:

Um my parents don't believe in mental disorders at all, for some reason. Um, I guess it's not like a prevalent thing there [in India], and there's never anything, like, they never, like, got medication for depression or anxiety, and I'm diagnosed with depression and anxiety, and I had an eating disorder at some point and it was the most difficult thing to deal with, because they're like, "You don't need help, you just need to eat more."

The procedure afterwards followed suit from the first two segments, and participants discussed their experience with this outlook and then brainstormed ways to combat these perspectives.

At closure, participants were asked if they had any questions and were reminded of the time and location of their first intervention session.

**Pre-treatment protocol for African American group.** The format of activities for the African American groups was very similar to that of the Asian American groups, but was personalized based on focus group results for these women. Similar to the Asian groups, a “stereotype” activity was used in the first segment. However, these stereotypes stemmed from focus group perceptions’ of how African American women are portrayed in Western society. Three prominent stereotypes about African American women were used in this segment, and were alluded to during the focus groups. An example of one of these excerpts was:

*From “Decoded” with Franchesca Ramsey: “Meet “The Jezebel.” She’s sexual. She’s aggressive. She just wants it all the time. And while stereotype has persisted throughout TV and film history, today you can usually find the jezebel archetype in music videos and all over reality TV. It also pops up in the policing of black women’s bodies and sexuality. Just ask Rihanna, or Nikki, or Beyoncé.” (Everyday Feminism, 2016)*

These “stereotype” segments included descriptions from popular media and academic books that African American women may be portrayed as overtly sexual, curvy, and may be assumed to have different traits based on the shade of their skin. After stereotypes were read, participants discussed any experience they may have had in hearing these stereotypes, and then brainstormed ideas on how to combat negative stereotypes about African American women.

The second pre-treatment segment addressed expectations that African American women should be “curvy.” I read aloud a short quote about this expectation from the focus group, seen below:

Here in America, I think that African American women, if they’re seen as curvy, they’re more beautiful than someone who has, who’s like a size 2, maybe. But then, as, once an African American woman reaches a certain weight or something she’s considered “obese” and she needs to do this and that to maintain this type of body image, so I think that that also plays a role.

After hearing the quote, participants discussed any experiences they had had pertaining to that ideal. Finally, participants developed ideas on how to refute this ideal and stated these ideas aloud.

In the final pre-treatment segment, cultural stigma against mental illness was addressed once again, as this was a central point of intervention in the *African American Body Image Evolutionary Model*. I read aloud a representative quote from focus groups about stigma, seen below:

Growing up in my household, my mom’s like, if you got a problem, you don’t take it, your problem outside of the household like, what goes on in this house stays in this house. And I guess unlike with White people, if you have a problem, you don’t really take it to somebody else, you discuss it with your family or you go to church for it,. You don’t go outside and tell everybody about the problem.

After reading this excerpt, I then asked the participants if they had experienced this viewpoint either themselves, or within their family. After this brief discussion, participants then stated ways

they could combat this stigma. At the close of the session, they were asked if they had questions and were reminded of their first intervention session.

### **Study 2: Pilot Intervention**

Study 2 involved the implementation of the SATED intervention, including implementation of the cultural pre-treatment to half of the groups. The purpose of this pilot study was to provide evidence for the feasibility and acceptability of SATED. Specific objectives of the pilot study were as follows:

1. To test the feasibility of recruiting women ages 18-30 who identify as African American or Asian American from community and college settings;
2. To test the feasibility of delivering a culturally-adapted version of a peer-led, eating disorder dissonance-based intervention;
3. To assess the fidelity with which the cultural pre-treatment was delivered;
4. To collect preliminary data on recruitment, attrition, and relevant outcome measures to inform parameters of a definitive, future trial;
5. To assess acceptability of the program to Asian American and African American women.

### **Method**

#### **Research Design**

The study utilized a 4-arm randomized controlled trial design with three collection data points at baseline, post-intervention (1 week), and 2 to 3-month follow-up (8-12 weeks). Due to timing and scheduling constraints, the first two African American groups completed follow-up assessments at 3-month follow-up ( $N = 6$ ), and the remaining participants completed follow-up assessments at 2-month follow-up ( $N = 19$ ). The arms of the study included division by ethnicity (i.e., African American or Asian American) and division by intervention condition (i.e., pre-treatment or no pre-treatment). Participants were assigned to 1 of 2 groups after initial eligibility

was verified. Groups, not participants, were randomized using the following method: 4 groups of African American women and 2 groups of Asian American women were enrolled into the pilot intervention. In order to assess the feasibility of the cultural adaptation, an equal number of groups in the intervention and control condition for both the African American and Asian American samples were desired. Thus, a series of 0's and 1's were placed into a random number generator (Random.org, 2017) in order to randomize these conditions, with 0 = no cultural pre-treatment condition; and 1 = cultural pre-treatment condition. From the random-number generator, a list of conditions was generated for each population (See Table 1). Women who participated in the focus groups were not eligible to participate in the pilot intervention.

*Table 1.* Random Assignment of Groups to Control (0) or Intervention (1) Condition

	<b>African American</b>	<b>Asian American</b>
<b>Group 1</b>	0	0
<b>Group 2</b>	0	1
<b>Group 3</b>	1	-
<b>Group 4</b>	1	-

**Process evaluation methods.** Process evaluation methods were used to assess the implementation of the intervention including feasibility, acceptability, and fidelity. Direct observations of program delivery, interviews with the program co-facilitator, and closing discussions with participants were used to assess intervention implementation. More specifically, direct observation by a trained research assistant and closing discussions with participants addressing satisfaction with the session assessed potential contextual influences and how the intervention was received. Direct observations entailed observation of the first session of the intervention for an Asian American group, and observation of the second session for an African American group. Prior to starting these sessions, I introduced the participants to the

research assistant and stated that she would be there to observe the group and take notes. Post-intervention interviews with the co-facilitator also enabled assessment of fidelity of delivery.

**Sample size.** Study 2 was a pilot study and thus, hypothesis testing of key outcomes was not a central part of the design. However, based on samples in extant pilot studies and taking into account an approximated 20% attrition rate, appropriately 30 participants were desired (Valentine & McHugh, 2007). A conservative estimate after accounting for participants who dropped out was  $N = 25$ .

**Inclusion criteria.** Inclusion criteria were the same as for Study 1. Participants were between the ages of 18 and 30, female, and identified as either African American or Asian American. Additionally, participants all reported having some appearance concerns or dissatisfaction with their body during the pre-screening process. This criterion was confirmed by asking the participant to reply to the initial contact e-mail if they reported that they had some body image concerns.

**Exclusion criteria.** Participants were excluded if they were under the age of 18, over the age of 30, or identified as a gender other than female. Males were ineligible for the study because generally females exhibit EDs at higher rates than males and the determinants of EDs differ between genders (Eisenberg, Nicklett, Roeder, & Kirz, 2011).

### **Facilitators**

I was one of the facilitators for these groups, along with another trained psychology graduate student who identified as African American. The rationale for conducting ethnically-homogeneous groups with at least one race-matched facilitator is that research indicates that race-matching is an important component of mental health treatment for both African American

and Asian American populations (Meyer & Zane, 2013). Thus, choosing to race-match may have resulted in better group processes and outcomes than non-race-matching.

Materials for the two-session Body Project intervention were obtained from the on-line facilitator website ([www.bodyprojectsupport.org](http://www.bodyprojectsupport.org)). All intervention materials, including the manualized 2-session script and activities, and sample recruitment materials, were available from the website. In addition, individuals interested in receiving additional help with facilitation could sign up to receive more information about the intervention by providing their e-mail.

Criteria from the Body Project manual specifies that the manual was developed “for school counselors, psychologists, nurses, or teachers” (Stice et al., 2013b). However, the version used in the current study was the Becker and colleagues (2008) peer 2-session version of the intervention (See list of activities for this intervention in Appendix A). In this version, the central criterion was that facilitators be familiar with the 4-session version before being trained on the 2-session materials. The primary facilitator used this resource as well as the facilitator guide developed by Stice and colleagues (2013b) for training. The co-facilitator was trained by the primary facilitator. Both individuals read through the theoretical foundation and guidelines in the 4-session version before reading through the script from the 2-session version. In total, two training sessions were held.

Prior to training the co-facilitator, the primary facilitator read the text of the facilitator guide for the Body Project (Stice et al., 2013b). This book provides an in-depth theoretical background for the Body Project, as well as the rationale for included activities. Training was then held via two different sessions. During the first training session, the facilitator and co-facilitator read through the “Body Acceptance Class Manual – Enhanced Dissonance Version” (available via <http://www.bodyprojectsupport.org/assets/pdf/materials/bps.pdf>). This 4-session



version of the Body Project provides informational sections such as Purpose, Theoretical Foundation, Structure, Common Problems, Therapist Training, Manual Guidelines, and Facilitator Fact Sheet. In this training session, the facilitator and co-facilitator alternated reading these sections, and discussed any parts that were unclear. They then read through the script of the peer-2-session version of the Body Project (also available at the Body Project website at <http://www.bodyprojectsupport.org/assets/pdf/materials/peer2session.pdf>). After each section of this session, they paused to summarize and discuss any questions or concerns.

The second training session was devoted to practicing and refining delivery of the script. During this session, the facilitators went through the script of the peer-2-session version twice. During the first practice round, they practiced each activity to ensure that they knew its contents, as well as how to describe the activity to participants correctly. During the second practice round, the facilitators practiced the script as though it were a “dress rehearsal” for a real intervention session. They held a brief discussion after this training to clarify any last-minute details.

Due to scheduling conflicts, I was the only facilitator for the pre-treatment groups, except for one session at which there was a trained research assistant who observed and took notes.

## **Measures**

Although the current pilot study was not adequately powered to conduct multilevel statistical analyses, participants were given a battery of measures at baseline, post-test, and 2 to 3-month follow-up in order to obtain preliminary results. I also wanted to test the feasibility of the measures and the acceptability of these measures in the populations of interest. Participants in the pre-treatment condition completed the baseline questionnaire prior to the pre-treatment,

and participants in the non-pre-treatment condition completed the baseline questionnaire prior to starting the first intervention session.

***Demographic Questionnaire (Pre).*** Demographic items included ethnicity, age, year in school, educational status, and marital/relationship status. Participants also self-reported weight and height at each time point.

**Measures.** Primary outcome measures including eating disorder behaviors and attitudes towards seeking mental health treatment; these were measured at pre-test, post-test. Retention was measured at post-test and follow-up.

***Eating Disorder Examination Questionnaire (EDEQ; Pre, Post, 2 or 3-month Follow-up).*** The EDE-Q is a self-report version of the EDE that has been used to screen for subthreshold eating disorders. The EDE-Q has yielded good internal consistency among emerging adult women ( $\alpha = 0.78$  to  $0.93$ ) and good consistency in African American ( $\alpha > 0.76$ ) samples (Bardone-Cone & Boyd, 2007). Although there are currently no published results on validation of the EDE-Q among Asian Americans, previous research yielded high internal consistency in this group ( $\alpha = 0.92$ ) (Javier & Belgrave, 2015). In the current study, EDE-Q Global had high internal consistency in both groups (African American women's  $\alpha = 0.95$ ; Asian American women's  $\alpha = 0.95$ ). Reliabilities were also adequate on the Restraint (African American women's  $\alpha = 0.74$ ; Asian American women's  $\alpha = 0.88$ ), Eating Concerns (African American women's  $\alpha = 0.72$ ; Asian American women's  $\alpha = 0.67$ ), Shape Concerns (African American women's  $\alpha = 0.93$ ; Asian American women's  $\alpha = 0.94$ ), and Weight Concerns (African American women's  $\alpha = 0.83$ ; Asian American women's  $\alpha = 0.87$ ) subscales.

***Attitudes Towards Seeking Professional Psychological Help Scale – Short Form (ATSPPH-SF; Pre, Post, 2 or 3-month Follow-up).*** (Fischer & Farina, 2001) The ATSPPH-SF

is a scale that assesses attitudes towards using mental health care. Higher scores on this measure are associated with less treatment-related stigma and greater intentions to seek treatment in the future. Responses range from “0” (Disagree) to “3” (Agree). An example item is, “The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts.” The ATSPPH-SF has yielded high reliability among African American ( $\alpha = 0.83$ ) (Wallace & Constantine, 2005) and Asian American ( $\alpha = 0.85$ ) (Kim & Omizo, 2003) college students. In the current study, reliability was acceptable among both African Americans ( $\alpha = 0.62$ ) and Asian Americans ( $\alpha = 0.80$ ).

***Body Image Assessment Scale – Body Dimensions (BIAS-BD; Pre, Post, 2 or 3-month Follow-up for both Asian American and African American participants).*** (Gardner, Jappe, & Gardner, 2009) The BIAS-BD is a figure-rating scale consisting of 17 female contour-line drawings in which individuals pick the figure that best represents what they believe they look like and the figure that depicts their ideal shape. Scoring this measure involves equating each silhouette to body mass index, which represents a percentage. In order to measure body dissatisfaction, the difference in percentages for the chosen actual and chosen ideal body is calculated. The difference is a measure of body dissatisfaction, with higher percentages representing higher levels of dissatisfaction. The BIAS-BD yielded reliable and valid scores in its initial development in a diverse college sample ( $\alpha = 0.80$ ). In the current study, the BIAS-BD yielded low reliability among African American women ( $\alpha = 0.40$ ), but high reliability among Asian American women ( $\alpha = 0.84$ ).

***Retention.*** Retention was assessed by attendance at post-test and at the 2 or 3-month follow-up session. There were some methods used to increase retention. One included the development of a private Facebook group. Individuals could post articles or messages related to

body positivity. Another method used to retain individuals in the pilot intervention was to text individuals prior to their second session and prior to the follow-up session.

## **Procedure**

**Step 1: Recruitment.** Purposeful convenience sampling was used to recruit participants. Participants were recruited from several sources and outlets, including Craigslist, community groups, word-of-mouth, and the Psychology SONA subject pool. Recruitment occurred from February 2016 to the beginning of February 2017. Once participants expressed interest in participating, they were sent a detailed e-mail which asked them to confirm their eligibility for the study by replying to the initial contact e-mail. The text of this e-mail is seen in Appendix B. After confirming their eligibility (i.e. they met the criteria of identifying as female, either Asian American or African American, between the ages of 18 and 30, and having some body image concerns), they were given 3 to 4 time slots in which they could choose to participate. Once a time slot was chosen, they were scheduled for participation.

Groups consisted of a minimum of three women each. Once scheduled groups were confirmed, I randomized groups to either receive or not receive the pre-treatment via an on-line randomizer (Random.org, 2017). Individuals randomly assigned to the pre-treatment group were then individually scheduled to receive the pre-treatment prior to the first intervention session. Those in Condition 1 received a version of the intervention that was targeted for African American or Asian American women. Participants in Condition 2 completed the Body Project class as a standalone component.

**Step 2: Pre-treatment and pilot study.** Prior to implementation, the cultural pre-treatment protocol was refined based on focus group results (See previous section on the development of this pre-treatment). Due to scheduling conflicts of the African American co-

facilitator, the cultural pre-treatment was implemented by me across both samples. This deviated from the original plan to have the pre-treatment facilitated by an African American woman for African American participants and by me for Asian participants. All intervention sessions were facilitated by both myself and a trained African American graduate student.

Each session lasted approximately 2-3 hours and included all of the activities and homework included in the original 2-session Body Project intervention (Becker, Bull, Schaumberg, Cauble, & Franco, 2008; See Appendix A for list of activities). One session took place per week, with each intervention group participating in the intervention over two weeks and then participating in a follow-up session at two or three months (Becker et al., 2008; Becker, Smith, & Ciao, 2006).

***Condition 1: Pre-treatment condition.*** Half of the groups were randomly assigned to receive a culturally-sensitive pre-treatment (targeted to either Afrocentric or Asian-centric cultures) prior to the DB intervention ( $N = 12$  participants). Prior to beginning the intervention, participants randomized to this condition were told that they would need to complete this pre-treatment prior to the first dissonance-based intervention session. Women in this condition were scheduled to come to a designated private lab space where they completed the pre-treatment in a one-on-one session. They completed the battery of measures prior to this pre-treatment. The cultural pre-treatment session lasted approximately 30-45 minutes. The protocols developed for these conditions were discussed at the end of Study 1 and can be seen in Appendix C.

***Condition 2: No pre-treatment,*** Half of the groups received no pre-treatment and completed the intervention only ( $N = 13$  participants). The Body Project intervention has been found to be the most effective intervention in preventing eating disorders and improving body image among young women (Stice et al., 2013b).

## **Data Analysis**

The aim of this study was to assess the feasibility of a culturally tailored pre-treatment as a modification for an existing dissonance-based intervention to prevent eating disorders. Since an  $N = 30$  was not adequately powered to conduct higher level statistical analyses, descriptive statistics were used to assess change among participants. Means for outcome variables of interest (i.e., attitudes towards seeking help for psychological health, body dissatisfaction, disordered eating) were compared across time points (i.e., pre-test, post-test, and 2 to 3-month-follow-up). In addition, retention was assessed and compared between the non-pre-treatment group and the pre-treatment group, and effect sizes were computed for groups at follow-up. Other evaluation data such as observation notes and participant feedback were triangulated and written as an evaluation report. Finally, an exit interview with the co-facilitator as well as a fidelity check with a trained research assistant were conducted to inform a future, full-scale trial of the intervention.

## **Results for Study 2**

### **Sample and Setting**

Overall, 30 participants were recruited to participate in the study, but only 25 completed questionnaires across all three time points of the intervention. Thus, the final sample for the pilot intervention consisted of 25 participants (16 African American and 9 Asian American women). Two African American participants and one Asian American participant completed both the first and second sessions of the intervention, but did not complete the 2 or 3-month-follow-up session. Thus, retention at the second data collection was 28 out of 30, while retention at follow-up was 25 out of 30 participants.

Demographic characteristics of the study participants are presented in Table 2. Participants ranged in age from 18 to 26 years old. In terms of recruiting from community versus

college, efforts were somewhat successful especially for African American participants. Community outreach included interfacing with community partners (e.g., St. Paul's Baptist Church, Asian American Society of Central Virginia, Indian Society, and Craigslist). College outreach included recruiting via the Psychology SONA research system. The final sample included 16 women recruited from the community (i.e., 2 Asian American women and 14 African American women) and 9 women recruited from the SONA system.

*Table 2. Participant Demographics for Pilot Intervention (N = 25)*

<b>Variable</b>	<b>Pre-Treatment (N = 12)</b>	<b>No Pre-Treatment (N = 13)</b>
<b>Average age (range)</b>	20.42 (18-24)	22.00 (18-26)
<b>Weight<sup>a</sup></b>	166.42 (116-215)	162.54 (105-270)
<b>Height<sup>a</sup></b>	5'4" (5'1"-5'9")	5'4" (5'1"-5'8")
<b>BMI</b>	29.12 (21.04-36.56)	28.50 (19.67-42.18)
	<b>N (%)</b>	
<b>Race/ethnicity</b>	12 (48.0)	13 (52.0)
<b>African American</b>	7 (58.3)	9 (69.2)
<b>Asian American</b>	5 (41.7)	4 (30.8)
<b>Education Level</b>		
<b>Graduated high school/obtained GED</b>	2 (16.7)	2 (15.4)
<b>Some college</b>	8 (66.7)	5 (38.5)
<b>Graduate 2-year college</b>	1 (8.3)	0 (0.0)
<b>Graduate 4-year college</b>	0 (0.0)	2 (15.4)
<b>Some graduate or professional school</b>	0 (0.0)	2 (15.4)
<b>Earned graduate degree</b>	1 (8.3)	2 (15.4)
<b>Employment Status</b>		
<b>Unemployed</b>	3 (25.0)	2 (15.4)
<b>Part-Time</b>	9 (75.0)	6 (46.2)
<b>Full-Time</b>	0 (0.0)	5 (38.5)
<b>Religion</b>		
<b>Christian</b>	9 (75.0)	10 (76.9)
<b>Buddhist</b>	1 (8.3)	0 (0.0)
<b>Hindu</b>	1 (8.3)	0 (0.0)
<b>Other</b>	1 (8.3)	2 (15.4)

a. *Note:* Participants self-reported both weight and height

All pre-treatment and pilot intervention sessions took place in a meeting room at private space in an office building that was associated with the university. The door to the meeting room remained closed during the duration of these sessions.



## **Evaluation of Feasibility of Recruitment (Objective 1)**

The first aim of the pilot intervention was to evaluate the feasibility of recruitment from both college and community settings. The hypothesized reach of the recruitment as listed in the overall study procedure (p. 30) was  $N = 60$ . This hypothesized reach took into account the existing estimates of data stating that anywhere from 50-80% of women in the United States report some concern with their body image (Coker Ross, 2012; Thomas, Heinberg, Altabe, & Tantleff-Dunn, 1999).

Recruitment attempts were made via several outlets, including interfacing with community partners, attendance at festivals, outreach to student group organizations, Craigslist ad postings, and the Psychology SONA subject pool. Overall collective reach from these outlets was approximately  $N = 50$  by the study's end (i.e., 50 women expressed interest in the study). From these 50 individuals, 30 were recruited to participate in the pilot intervention (i.e., 60%), 28 completed baseline and post-test questionnaires (i.e., 56%), and 25 completed baseline, post-test, and 2 to 3-month follow-up questionnaires (i.e., 50%). If we consider that only about half of the 50 individuals reached were hypothesized to have body image concerns, then the success rates of recruitment are much higher at 100% (30 individuals out of 30 hypothesized to be eligible), 93.3% (28 out of 30 finishing baseline and post-test measures), and 83.3% (25 finishing measures at all 3 time points out of 30 hypothesized to be eligible). From these results, recruitment for the intervention appear to be successful overall. However, when one takes into account the number of individuals recruited by subgroups of interest (e.g., African American vs. Asian American), there were some issues that could be addressed in future trials.

When examining the final sample in terms of racial and ethnic breakdown, recruitment efforts were less successful for the Asian American group. Only 9 out of the 25 participants

identified as Asian American, and thus only 2 intervention groups were comprised of Asian American women. The intervention did not seem to generate as much interest among Asian American women as it did among African American women. One problem encountered in the recruitment of Asian American women was the lack of participation from Asian American community partners. I contacted six organizations in the Richmond Metro area that worked with the Asian American community. These included the Asian American Society of Central Virginia, the India Association of Virginia, the Islamic Society of Greater Richmond (ISGR), China Fest, the Hindu Center of Virginia, and the Cultural Center of India. For four of these organizations, initial contact was made via e-mail or a phone call but when I attempted to follow up with the organization to schedule a time for recruitment, my calls and e-mails were not returned. I had two in-person meetings with one of the organizations. At these meetings, the community stakeholders expressed support in helping to recruit women. Then, plans were made to involve me in a multicultural event in May 2016 and a health fair in October 2016. However, after the initial meetings, I was not successful in several attempts to contact the community organization's president and advisory board. In another organization, I was invited to an event that had an estimated reach of 200 individuals from which to recruit. However, upon participation in the event, the only women that expressed interest in participating were outside of the age range of 18-30 and thus no participants were recruited. Apart from working with community partners, one Asian American woman recruited from Craigslist completed the intervention, and one woman recruited from word-of-mouth also participated. The remaining 7 Asian American women were recruited using the SONA system.

Recruitment of African American women from the community was more successful. Three women were recruited from a community partner, 4 women were recruited from

Craigslist, and 7 women were recruited from word-of-mouth. The remaining two African American women were recruited from the SONA system.

### **Evaluation of Overall Feasibility of Pilot Intervention Implementation (Objective 2)**

The feasibility of pilot intervention implementation was assessed by several criteria: (1) fidelity of the pre-treatment and pilot intervention; (2) assessment of preliminary trends on outcomes of interest; and (3) acceptability of the pilot intervention.

**Evaluation of fidelity of pre-treatment and intervention (Objective 3).** Fidelity of both the pre-treatment and pilot intervention was assessed using the observation of a third party who observed a random session for the pre-treatment and the pilot intervention. This third party was a research assistant who was trained in how to take observational notes prior to sitting in on the sessions. The observer was given the pre-treatment protocol and the peer-2-session script prior to sitting in on the sessions. The training entailed instructing the observer to take notes as to whether goals and objectives (as outlined by the intervention script) were attained during the session, whether the participants appeared engaged, whether there was body language in the group that indicated conflict, and whether the facilitator(s) followed the manualized sessions. The research assistant made notes on any deviations and alterations in language and activities on the part of the facilitators.

Overall fidelity was high for both the pre-treatment and intervention sessions. In terms of goals and objectives, the observer for example, noted that goals such as “Defining the thin ideal and exploring its origin” (i.e., an objective outlined in the peer-2-session intervention; Becker et al., 2008) and “Discussing how to challenge our personal body-related concerns” were met during the sessions.

Observation notes indicated that participants appeared enthusiastic and engaged during most of the session, with the exception of a few moments during which others were finishing an activity and some of the participants had to sit quietly. For instance, one observation note was that, “The participants were very engaged at the beginning of the session. They all actively participated in the “perfect” women or thin ideal list-making.” The observer went on to say, “All of the participants were trying to think about the questions and giving great examples, no one was zoning out.”

The observer noted that in terms of the fidelity with which the pre-treatment and intervention sessions were delivered, the facilitators followed the script very closely. After each observational session, a debriefing was held to discuss notes and her perception of the fidelity of the session.

**Preliminary findings (Objective 4).** The distribution of scores on outcomes of interest were investigated using descriptive statistics, which were evaluated over the three time points. Due to the small sample size and possible confounds, a decision was made to not do any preliminary statistical testing, except for calculating effect sizes at follow-up. For example, because of random assignment of groups and not individuals to conditions, the distribution of participants ended up with more African Americans in the non-pretreatment treatment condition and more Asian Americans in the pre-treatment condition.

Table 3 presents preliminary trends on variables of interest, including the EDE-Q global score, EDE-Q subscales of Restraint, Eating Concern, Shape Concern, and Weight Concern, body dissatisfaction, and attitudes towards seeking professional psychological help. Effect sizes were also calculated for each variable at 2 to 3-month follow-up using an online calculator (<http://www.uccs.edu/~lbecker>). According to standard criteria set by Cohen (1977), the effect

sizes were relatively small, ranging from 0.03 on the EDE-Q Global Scale to a medium effect size of 0.50 on the EDE-Q Restraint subscale (See Table 3). This may be partially attributable to the small sample size, and will be discussed in the limitations section.

*Table 3. Preliminary Intervention Outcomes at Baseline, Post-test, and 2 to 3-month follow-up*

Variable	No Pre-TX Group (N = 13)			Pre-TX Group (N = 12)			Effect Size $r^a$
	Baseline M(SD)	Post-Test M(SD)	2-3 Mo F/U M(SD)	Baseline M(SD)	Post-Test M(SD)	2-3 Mo F/U M(SD)	
EDE-Q Restraint (Range: 1-6)	1.46(1.08)	0.87(1.17)	0.69(0.94)	2.07(1.63)	1.35(1.36)	2.16(1.55)	0.50
EDE-Q Eating Concern (Range: 1-6)	1.05(0.95)	0.62(0.76)	0.55(0.77)	1.23(1.14)	0.97(0.92)	0.72(0.85)	0.14
EDE-Q Shape Concern (Range: 1-6)	2.73(1.63)	1.77(1.58)	1.51(1.59)	3.83(1.34)	2.86(1.62)	2.52(1.87)	0.10
EDE-Q Weight Concern (Range: 1-6)	2.22(1.31)	1.21(1.07)	1.19(1.24)	3.32(1.50)	2.82(1.55)	2.42(1.64)	0.12
EDE-Q Global (Range: 1-6)	1.8(1.15)	0.99(1.01)	0.98(1.08)	2.56(1.15)	1.91(1.10)	1.84(1.13)	0.03
Body Dissatisfaction (Range: 1- 100%)	16.67%(14.03)	12.08%(13.05)	13.85%(14.74)	35.42%(14.69)	30.42%(13.39)	38.00%(25.63)	0.18
ATSPPH-SF (Range: 1-40)	28.31(6.51)	30.85(6.18)	30.20(5.68)	28.58(4.46)	30.33(4.87)	30.50(4.11)	0.02

a. Effect sizes were calculated for groups at time point 3 (2 to 3-month follow-up)

**Results from the EDE-Q.** General trends show that both groups exhibited decreases on all subscales of the EDE-Q as well as the EDE-Q Global scale from baseline to post test, with the exception of the EDE-Q Restraint subscale, on which the score for the pre-treatment group *increased* from post-test ( $M = 1.35, SD = 1.36$ ) to 2 to 3-month follow-up ( $M = 2.16, SD = 1.55$ ). There was also a medium effect size between the pre-treatment and no pre-treatment group on the outcome of effect size,  $r = 0.50$ . Additionally, the group that received the pre-treatment had higher scores on all EDE-Q subscales at baseline, compared with the no pre-treatment group. For instance, the average EDE-Q Restraint score for the no pre-treatment group at baseline was  $M = 1.46, SD = 1.08$ , whereas it was  $M = 2.07, SD = 1.63$  at baseline for the pre-treatment group. These means indicate that both in the pre-treatment and no pre-treatment group, eating pathology decreased over time.

There was a trend for decreases in the EDE-Q Global Score from post-test to 2 to 3-month follow-up for both groups. For the no pre-treatment group, EDE-Q Global Score remained relatively steady from post-test ( $M = 0.99, SD = 1.01$ ) to 2 to 3-month follow-up ( $M = 0.98, SD = 1.08$ ). Conversely, in the pre-treatment group, EDE-Q Global Score decreased from post-test ( $M = 1.91, SD = 1.10$ ) to 2 to 3-month follow-up ( $M = 1.84, SD = 1.13$ ).

**Results for the Body Dissatisfaction scale.** Recall that the measure of body dissatisfaction was a percentage difference score between actual and ideal body (i.e., as chosen from a tableau of silhouettes varying in shape by BMI). Higher percentages indicate a higher discrepancy, and thus, higher levels of body dissatisfaction.

In terms of reported body dissatisfaction, the two groups differed at baseline, with the no pre-treatment group's average level of body dissatisfaction at approximately 16.67% ( $SD =$

14.03), while the pre-treatment group's average level of body dissatisfaction was 35.42% ( $SD = 14.69$ ). Both groups exhibited decreases in body dissatisfaction from baseline to post-test. However, both groups' body dissatisfaction slightly increased from post-test to 2 to 3-month follow-up.

**Results for the ATSPPH-SF.** The final variable of interest was for attitudes towards seeking professional psychological help. The scoring system for this scale was a summation score of the 10 scale items, with higher scores indicating more positive attitudes towards seeking psychological help. Scores for both the no pre-treatment ( $M = 28.31$ ,  $SD = 6.51$ ) and pre-treatment group ( $M = 28.58$ ,  $SD = 4.46$ ) were relatively high at baseline, indicating that both groups had generally positive attitudes towards seeking professional psychological help at the beginning of the pilot intervention. These attitudes grew slightly for both groups at post-test ( $M = 30.85$ ,  $SD = 6.18$  for the no pre-treatment group and  $M = 30.33$ ,  $SD = 4.87$  for the pre-treatment group). At 2 to 3-month follow-up, attitudes had slightly decreased for the no pre-treatment group ( $M = 30.20$ ,  $SD = 5.68$ ), but had slightly increased for the pre-treatment group ( $M = 30.50$ ,  $SD = 4.11$ ).

**Evaluation of acceptability of pilot intervention (Objective 5).** Although satisfaction data was not collected from participants, acceptability of the pilot intervention was assessed via three triangulated methods: (1) discussions with participants at the end of the intervention; (2) detailed observations from a third party; and (3) an in-depth exit interview with the co-facilitator.

**Findings from closure discussions.** At the end of each session, participants were asked to discuss the following questions, as part of a closing discussion.



- (1) Can everyone tell me something that “worked for you” in this session, “hit home” or even something that you just liked?
- (2) Can you tell me some of the benefits of body acceptance?
- (3) Did any particular activity really stand out as helpful to you?
- (4) How has this experience changed the way you think and feel about your own body?
- (5) How has your participation in The Body Project changed what you do, or will do in the future, to promote your own body acceptance?
- (6) How has this group changed how you interact with friends, romantic partners or any other people in your life?
- (7) What else have you gotten out of this class?

Although the questions were aimed primarily at the individual’s participation in the Body Project class, several participants mentioned the benefit of talking specifically about body image issues as they relate to minority women. For instance, one African American woman stated it was hard to talk about issues relating to appearance with her White friends. She felt as though her body image concerns may not be understood by them, and felt more comfortable opening up to other women of color on these topics. Other common themes across discussions included: (1) participants enjoyed feeling like they could disclose body image concerns with others and that they did not feel alone in their concerns; (2) women reported that they enjoyed a range of the activities included in the Body Project, including the Mirror Exercise, Writing a Letter to a Younger Girl, and Quick Comebacks to Fat Talk; (3) women stated that they perceived several benefits to body acceptance including that they would feel better about themselves and feel more confident; (4) Women stated that their participation in the project gave them more confidence to

negate fat talking statements, specifically from family members -- this was a central unit among both African American and Asian American women).

Several positive statements were made about the facilitators. For example, women across both groups stated that they liked how the facilitators disclosed personal examples for each activity, and that this helped to make the experience more personable. For instance, in the “Verbal Challenge” exercise in the first session of the intervention, participants are instructed to think of three examples of when they a friend or family member made a comment about either themselves or someone else regarding weight or appearance. While the manual does not explicitly instruct facilitators to disclose a personal experience on this topic, the facilitators had consistent examples for this activity that helped to both clarify the activity for participants as well as to help build a rapport with participants. Overall, women responded positively to participating in the Body Project.

***Findings from third-party observations.*** Detailed notes were taken by a trained research assistant during a random pre-treatment session, a first session of the Body Project, and a second session of the Body Project.

Several behaviors that conveyed engagement and interest from the participant were reported. Some of the observations from the pre-treatment session were: (1) the participant appeared more closed at the beginning of the interaction, but as the session continued, she appeared to become more relaxed and to make more eye contact with the facilitator; (2) the participant seemed to be very candid in responses to questions asked and appeared to be very comfortable answering questions on sensitive topics (e.g., whether they had ever experienced a racial stereotype mentioned); and (3) at the conclusion of the session, the participant made more

eye contact than during the initial portion of the session, and assured the facilitator that she would attend the first session of the intervention.

Some comments from observational notes were: (1) participants appeared very comfortable disclosing what body parts they felt uncomfortable with; (2) participants were very polite and rarely spoke over one another; (3) there was a high degree of consensus among participants on topics such as not promoting fat talk, either consciously or subconsciously; and (4) participants were very attentive towards the facilitators. Overall, individuals participated in each activity and by the end of the sessions, participants seemed generally glad that they had chosen to join the group. These observations were consistent across both the African American and Asian American groups.

After each observation session, I sat with the research assistant to go over her notes and to do a debriefing of her general impression of how the session went. From there, we discussed what was working (e.g., disclosing personal anecdotes with participants as they related to the activities, asking quieter participants if they had something to add to a discussion if they nodded in agreement with someone else). We also discussed what could be altered (e.g., during role plays, having the facilitators continually challenge statements negating fat talk in order to prolong this activity so that participants may get more out of it). In summary, observations were beneficial in providing feedback to improve the implementation of the pre-treatment and the pilot intervention.

***Findings from exit interview with co-facilitator.*** I also conducted an in-depth interview with the co-facilitator to gauge her impression of how the pilot intervention went. Questions and answers from this in-depth interview are below:

(1) What was your overall impression of the intervention and your experience in the intervention? Did you have a positive experience with the intervention or a negative experience?

Co-facilitator's answer: "I had a very positive experience because it wasn't just helpful for the girls, but it was helpful for me. You know, going through each session and sort of reinforcing the positive body image, and so I definitely learned a lot and just really enjoyed hearing from the girls. And to be able to also have dialogue with them and even add things about my own experiences, so. I definitely really enjoyed it and had a very positive experience."

(2) When you think back to before we even started, in terms of training, did you find that the material was easy to understand or were there ways in which I could have improved as a training person that could have help you understand more?

Co-facilitator's answer: "I think at first it seemed very complex and difficult, but when we actually started the sessions and I was actually able to see it, and see the script laid out, and I could see session 1, session 2, it became really easy, because then I realized, 'Oh, okay. There are two sessions and I just have to follow the script.' And so, it became easier for me once we started as opposed to before when we were just kind of talking about the logistics and things."

(3) Do you remember the video chat we had before the intervention [where we went through the script]? Did that help as a component, or do you think that was a session that you could have done without?

Co-facilitator's answer: "That was really helpful, to see the script and go through it before we actually had the sessions and be able to have you ask me if there's anything you feel like we should edit or add or take out. Like, I really enjoyed that and it made it just a lot easier for me to go through it beforehand."

(4) In terms of the actual script content, did you find that we stayed pretty true to the contents of the intervention, or did you think that we improvised and deviated from it?

Co-facilitator's answer: "I think we stayed pretty true to the script, but we definitely added our own type of improvisation at times just to make it seem more casual, rather than reading off of the page and sounding robotic. Um, but I definitely think even in the midst of us improvising, and maybe paraphrasing, we still stayed true to the content."

(5) What were some challenges you saw in terms of how we implemented the intervention and in the groups? Did you see any challenges throughout the experience?

"Um, I think the only real challenge, was that at any point, if the girls seemed disengaged, um, and so it was hard, like, just trying to manage when they seemed kind of like when they were disengaged from the experience and if they weren't talking or tired, or didn't want to talk anymore."

(6) Did you think that we did a good job in trying to combat those challenges?

"I think it was hard because we were bound by the script and we just had to follow the script and just keep moving. It's like, there really wasn't much we could have done apart from *we* stay engaged, and keep moving along the script, and we remain as enthusiastic as possible even if they became disengaged."

(7) Do you think for the most part participants were receptive to the content, or do you think it could have been more tailored to different groups?

"I think for the most part they were. I do think that for the most part, the content did seem to be tailored towards one group or one type of thin ideal. Especially when I think about the comment [from the Fat Talk activity] about the girl having a big butt. I know there are Black women who

love big butts and they don't see that as a problem. But the script made it seem like it was, it was something people don't desire. But I think for the most part they were receptive to it. Even when we went through the perfect woman exercise, I think that was their opportunity to showcase their own opinions.”

(8) How do you think the intervention and how we implemented it could be improved for future groups?

“I like the format of the 2-sessions instead of 4. Maybe there's a way to get it to one session, I think participants might like that. And maybe somehow making it more representative of different ideals. I think those two things.”

The overall interview yielded some key points and insights that could be used to improve future implementations of the intervention. From the co-facilitator's perspective, the experience appeared to be positive for both the facilitators and the participants. The co-facilitator reinforced the fidelity of the intervention, but mentioned at times that improvisation was used in order to make the script less formal. The main challenge reported by the co-facilitator was trying to re-engage participants if they appeared to have lost interest in the discussions or activities. This challenge was addressed by the facilitators staying engaged themselves, remaining enthusiastic, and continuing to elicit feedback from the participants. Finally, the co-facilitator suggested two changes to future implementations of the intervention: (1) Tailoring the activities and/or script to be representative of different types of body ideals; and (2) Condensing the sessions even more, and perhaps even having the intervention take place over one session. These suggestions will be discussed further in the Implications section.

## **Discussion**

Culturally-appropriate programming is essential in increasing positive health outcomes and participant retention in medical treatment (Meyer & Zane, 2013; Rathod et al., 2010). There is a growing body of literature examining problems with the diagnosis and treatment of eating disorders among women of color. I hypothesized that approaching this problem from a Deep-Structure cultural adaptive theoretical framework would result in better outcomes in these groups. This dissertation was the first of its kind (to my knowledge) to test the feasibility of a culturally-appropriate adaption of the Body Project intervention (Stice et al., 2013b) in order to come closer to testing the aforementioned hypothesis. Qualitative findings from Study 1 that women held attitudes rooted in their cultural and familial backgrounds regarding body image and eating behaviors, and were used to develop the cultural pre-treatment for Study 2.

In this discussion, I first provide an overall summary of findings from Study 1. Then, I continue with a discussion of the cultural pre-treatment and Study 2. Following this, I discuss limitations across the two studies and then make recommendations for a future, definitive trial, as well as related future studies.

### **Study 1**

#### **Similarities Between Groups**

Before departing into a discussion of each focus group, I will first discuss similarities across groups. The overarching structure of the evolutionary models were similar in both the Asian American and African American groups. Both models involved a hierarchy of influence as well as the same central phenomenon of interpretation of messages. In addition, while quotes were categorized differently within-groups, there were some similarities in topics mentioned by

participants. For instance, familial comments were integral to both African American and Asian American women in the development of body image and eating behaviors. In addition, both groups discussed the importance of food in family gatherings and the expectation to eat when in a social setting. Also, both groups discussed a cultural stigma around mental illness and how, compared with the predominant White culture, their respective cultures were not as accepting of mental illness as a true phenomenon.

Finally, there were several subtopics which did not have saturated discussions in both groups, but were mentioned by one or two participants within each group. One example of a subtopic mentioned by both African American and Asian American women was skin color. More specifically, skin color appeared to be a determinant of attractiveness in both groups. Another example of a less-frequently mentioned subtopic in both groups was the influence of social media. In particular, Instagram (e.g., Instagram.com) appeared to be a prevalent media outlet in the development of body image ideals, and was mentioned in both groups.

### **Asian American Groups**

The treatment model that developed from Asian American groups is called the *Asian American Body Image Evolutionary Model*. In this model, the primary phenomena that emerged was the interpretation of messages about body image and eating from the influences of 1) society, b) interpersonal relationships, and c) intrapersonal feelings. The theory that was developed is based on the premise that the three aforementioned influences affect an individual's attitudes about body image and eating behaviors, which in turn leads to the central phenomenon of interpreting these messages. From this point, an individual can either choose to reject body negative perceptions and disordered eating behaviors, or accept these expectations. The decision



to *reject* body negativity and disordered eating is called “adaptation” within this model. From this behavioral decision, individuals who do not “adapt” may face a set of facilitating and non-facilitating factors that will either lead them to or prevent them from obtaining treatment for eating disorders. Facilitators of treatment-seeking include the main factors of resources (i.e., both tangible and intangible), endorsing body positive ideals, and peer support. Barriers to treatment seeking were cultural stigmatization around mental illness in general, and lack of tangible and intangible resources.

One prevalent observation from these focus group data is that these influences did not occur in a vacuum and appeared to be interrelated. For instance, several individuals discussed treatment seeking reservations and cultural stigma around mental illness within the context of not only their Asian cultures, but within their families. When discussing family’s beliefs (or lack of beliefs) about mental illness, many women stated that these attitudes were learned from their native Asian culture and permeate present beliefs about mental illness. These viewpoints almost seemed defeatist in some ways, as though individuals perceived that their families are set in their ways and would continue to be a barrier to seeking treatment for mental illness.

Of course, there were some exceptions to this viewpoint. For instance, one Vietnamese individual stated that her father was a doctor and was familiar with psychotherapy and thus was very supportive of mental health treatment practices when she exhibited mental illness as an adolescent. The presence of this intangible support is an example of a facilitator of treatment seeking motivation. For the most part, individuals in the Asian groups perceived that a presence of both tangible (e.g., financial resources) and intangible (e.g., familial support) resources were important in the motivation of women to stay in eating disorder treatment programs.

In general, the influencing factors of society, family and non-family members seem to be inevitable to individuals at this age. Thus, for Asian American women in emerging adulthood, it seems as though the critical point of intervention to prevent any future disordered eating behaviors is at the peer and intrapersonal level. Several women compared and contrasted the body positive views of their peer groups with their more “single-minded” native cultures. Peers appeared to be an integral factor in the decision of women to accept notions of body negativity and engage in non-disordered eating behaviors. It makes sense, then, that the most widely accepted evidence-based prevention intervention among women is conducted among peer groups (Becker et al., 2008). Given these findings, if a researcher was interested in preventing disordered eating behaviors in general, it would be beneficial to include peer teaching and body positivity messages in an evidence-based intervention.

However, when one considers individuals who have already accepted body negative perceptions and may be more likely to engage in disordered eating behaviors, a *different* intervention point needs to be taken into account. This prevention point is for individuals who do not “adapt” to body positive messages and peer support and thus, may be at higher risk for developing these behaviors. That is not to say that these individuals would be considered at subthreshold level for developing eating disorders; these individuals may not be diagnosable under current clinical guidelines and may be ruminating on these body negative messages, and thus more prone to reject the idea of treatment seeking for eating disorders. Within the scope of this grounded theoretical model, Asian American women may largely fit within this category. What makes these individuals different from predominantly White individuals is that they seem to be negotiating ideals from their native Asian cultures, and ideals from a predominantly

Western society. Some women discussed that throughout childhood and/or adolescence, they were exposed to media ideals about beauty within their own native countries. Although these ideals seem to be similar to thin-ideal internalization within Western society, they cannot completely be equated. In addition, some individuals perceived Western society as more accepting of diverse body types than Asian cultures, in which the ideal may be more homogeneous. It is *this* Asian cultural ideal that seems to permeate through the family unit and affect an individual's perceptions of beauty prior to emerging adulthood.

The family unit was seen as a major driving factor in the development of beauty ideals and eating behaviors among Asian American women. It seems as though family members, and especially elders, held onto beauty ideals from their native cultures, as was seen across ethnic subgroups. Women spoke often of comments that were made by elders such as grandparents and parents of how women in their native countries look starkly different from Asian women in the United States. Individuals seemed to take comments from direct family members to heart the most, although indirect family members and close others also seemed to have an effect on the development of attitudes around body image and eating. The family unit permeated not only body image ideals, but also treatment-seeking motivations among Asian American women. In fact, the family seems to be the single most prevalent driving factor in an individual's decisions to both seek out and stay in treatment for an eating disorder. Once again, family influence did not occur in a vacuum, and seems to extend from a cultural stigmatization of mental illness in general. Asian American women in the groups spoke of eating disorders not as standalone mental illnesses, but part of a larger lack of acknowledgment that mental illness exists within the Asian community. It may be that these women were largely in their first and second year of

college, so they do not feel the autonomy to take control of mental health decisions. Thus, the majority of the women spoke about treatment-seeking as not feasible if family support and other tangible resources did not exist. It would be interesting to see if individuals who were in older emerging adulthood and who had their own personal health care addressed these subjects in a different way.

### **African American Groups**

Not surprisingly, the phenomenon of interpretation of messages about eating and appearance differed between African American groups and Asian American groups. These nuances in influences speak to the importance of examining cultural origins when intervening for mental illness among these groups.

Among African American women, the most prevalent influences on the development of attitudes about appearance and eating behaviors were: 1) Cultural influences of White culture and Black culture; 2) Expectations for Black women; and 3) Individual influence. These influences led to the central phenomenon of interpretation, which led to either disordered behaviors or adaptation. Disordered behaviors included both eating and non-eating behaviors, including engaging in non-eating-related body “alterations” (e.g., contouring) and over-exercising. If an individual did choose to engage in disordered eating behaviors, a number of facilitators and barriers affected her decision to seek treatment. Facilitators, or factors that *encouraged* treatment-seeking included the presence of tangible resources and familial support, which were facilitators similarly seen in the Asian groups. Some of the barriers to treatment-seeking were unique to African American women, including programs not being culturally-appropriate for African American women.

Similar to the Asian American groups, the external influences of body image and eating behaviors do not occur singularly, and may be even more closely related. For instance, the overarching theme among this group was the dichotomy of predominantly White culture vs. Black culture. Black culture, in turn, seemed to be directly associated with expectations for Black women. For instance, when participants spoke about the culture of food and Black men as romantic partners, these influences spoke to the expectation that Black women who are curvy are seen as more desirable. In addition, the cultural influences of food and family were very closely interwoven in this group, with several women remarking that food was a central part of family gatherings, and the type of food they were raised with directly related to a more voluptuous body type.

One observation in terms of the development of eating disorders was that, although women defined eating pathology in several ways (e.g., binge eating, anorexia), several held the perspective that eating disorders are not prevalent among African American women. For instance, *Tribe* stated, “African Americans have eating disorders? That’s like, White girl stuff. That’s like the first thing I think that pops into a lot of people’s heads. I think it’s exclusively a “White girl disease” and I think that’s hard.” Participants seemed to acknowledge that eating disorders can exist among African American women, but those problems are overshadowed by cultural beliefs that these women’s eating habits and bodies are “naturally” different. However, several women acknowledged that eating disorders were not simply the result of poor body image, but might be primarily caused among African American women by a feeling of lacking control. This sense of lacking control could then be channeled into an aspect of a woman’s life that she *could* control, including eating.

In terms of treatment-seeking, women discussed both the presence of tangible resources and familial support as integral in their decisions to treatment-seek for eating disorders and other mental illnesses, which appeared to be themes similar in the Asian groups. However, one barrier to treatment-seeking emerged among African American groups that appeared to be unique: that current treatment-seeking programs do not seem to be tailored to African Americans. *Cyah* remarked that when she was in treatment, there was only one other African American woman there, and she felt like an outsider for the most part. In addition, other women stated that mental health treatment seems to be mostly geared towards White women, and they would not feel comfortable pursuing it because of that reason. This lack of cultural tailoring, in conjunction with the tendency to keep problems within the family, might further reduce the likelihood that African American women will enroll in mental health treatment.

### **Pre-treatment**

The pre-treatment that emerged from focus groups was developed to be culturally-tailored towards either African American and Asian American women. Analyses were used to develop a brief 30 to 45-minute session that included quotes from popular media, news articles, and academic books tailored to individual cultures. In addition, quotes were pulled from focus groups for the second and third activities in each pre-treatment session. During the sessions, the theoretical bases of cognitive dissonance theory and deep-seated cultural adaptation were enacted upon via tailoring of quotes, discussion, and subsequent combatting of unrealistic ideals. Overall, the pre-treatment was delivered with fidelity, based on a third-party observation. The participants observed appeared to be engaged and responsive to the facilitator during this session.

## **Study 2**

Overall, the purpose of the pilot intervention (Study 2) can be summarized into five specific objectives, which are re-stated below:

1. To test the feasibility of recruiting women ages 18-30 who identified as African American or Asian American from community and college settings.
2. To test the feasibility of delivering a culturally-adapted version of a peer-led, eating disorder dissonance-based intervention
3. To assess the fidelity with which the cultural pre-treatment was delivered.
4. To collect preliminary data on recruitment, attrition, and relevant outcome measures to inform parameters of a definitive, future trial
5. To assess acceptability of the program among Asian American and African American women.

To determine the overall success of the pilot intervention, each objective will be reviewed, how it was measured, and whether the objective was met based on the findings of the pilot study.

### **Objective 1**

Object 1 was to test the feasibility of recruiting a sample of women for the pilot intervention according to criteria, including that they be from the ages of 18 to 30 and identify as either African American or Asian American. While meeting this objective may be considered successful at face value, there were some limitations that should be addressed in future trials.

The overall success of recruitment was limited by a number of factors. In terms of recruiting by race and ethnicity, it was much more difficult to recruit women who identified as

Asian American from the community. Although I made initial contact with several Asian American community organizations, I only received responses from two. Furthermore, I attended initial meetings convened by one of the organizations; at these meetings members appeared to be interested in collaborating. However, these collaborations did not come to fruition. I also attended a festival hosted by the India Association of Virginia and attempted to recruit women, but no women within the target age range wanted to participate.

Several considerations should be taken to address difficulties in recruiting Asian American community women in future studies. For one, the demographics of Asian American within the community may not have been indicative of the number of Asian American women in attendance at VCU. For instance, a recent census poll indicated that approximately 3% of individuals living in the Richmond metropolitan area and 2% in Richmond City identify as Asian or Asian American (Virginia Commonwealth University's Center on Society and Health, 2016). However, over 12% of students at VCU identify as Asian or Asian American (Virginia Commonwealth University, 2017). The disproportionate number of Asian American students at VCU may have not been a realistic estimate of how many potential community recruits existed within the area. Thus, for future implementations of this intervention, it may be important to take additional measures to recruit from within community and/or to recruit from communities with a higher percentage of Asians. Some potential methods are discussed in the "Future Trials" section.

Recruiting women identifying as African American from the community was an easier process. I worked with community organizations such as St. Paul's Baptist Church. One factor that helped in recruiting from this organization was having a prior relationship with them. I had



recruited women from St. Paul's Baptist Church to participate in my focus groups, and thus had contacts at the organization. In addition, the majority of respondents from Craigslist identified as African American. In general, African American women seemed more enthusiastic about participating in the group than Asian American women, as evidenced by higher response rates from the community and the college. One explanation for the higher rates of African American community respondents might lie in the demographic makeup of Richmond. According to a recent census poll, Richmond City is predominantly African American (i.e., 49% of Richmond City; 30% of Metropolitan Richmond; Virginia Commonwealth University's Center on Society and Health, 2016). A higher percentage of women in the African American community in the metro Richmond area resulted in a larger pool from which participants could be recruited.

Recruitment was also done through the department's SONA subject pool. Also, some university students were recruited from Craigslist, and other university students were recruited via word-of-mouth; women recruited via these methods were grouped into the "community" sample. Overall, approximately 10 women that comprised the "college" sample were recruited via the psychology SONA pool. Women in this group had the option of choosing either to receive a cash incentive or receive course credit for completing the pilot intervention, however all women chose to receive the cash incentive. In terms of general impression, both women in the college sample and the community sample appeared enthusiastic about participating in the intervention.

In summary, recruitment proved more difficult for the Asian American sample than the African American sample. This difference in recruitment rate may be attributable to

demographics in the Richmond area, as well as a higher percentage of Asian students at the university as opposed to within the community.

### **Objectives 2 and 3**

Objective 2 was to test the feasibility of delivering a culturally-adapted version of a peer-led, eating disorder dissonance-based intervention, and objective 3 was to assess the fidelity of the pre-treatment and pilot intervention. Objectives 3, 4, and 5 were all required to meet Objective 2; however, Objectives 4 and 5 will be discussed separately.

Overall feasibility of the pilot intervention was met, and the implementation of both the pre-treatment and intervention was successful. One criterion to determine this feasibility was whether or not the pre-treatment and intervention were delivered with fidelity; that is, delivered true to the manualized versions. As evidenced by a third-party trained observer, the delivery of the pre-treatment was true to the manualized version that was developed.

A third-party observer as well as the co-facilitator indicated that the intervention was also delivered with fidelity, and that the facilitators were successful in staying true to the content of the peer-2-session version of the Body Project (Becker et al., 2008). One caveat to this fidelity check was that the co-facilitator indicated that she and I added interest to the manualized Body Project script (e.g., by adding relevant examples during activities). However, the co-facilitator stated that this was necessary to maintain enthusiasm and interest in the groups. Overall, the delivery of both the pre-treatment and the Body Project remained true to the original manuals, and all scripted activities and discussion prompts were delivered in a consistent manner.

#### **Objective 4**

The fourth objective was to collect preliminary data on recruitment, attrition, and relevant outcome measures that would then inform a future, definitive trial of the pilot intervention. Hypothesized reach of women across community and college outlets was approximately 50 individuals who showed interest in participating. From that number, initial contact via e-mail was made with approximately 30 individuals. From these 30 women, 28 participants attended intervention sessions 1 and 2, but only 25 individuals completed the 2 to 3-month follow-up session. Thus, the total attrition rate from baseline to post-test was 0%, and from post-test to 2 to 3-month follow-up was approximately 1.67%. Conversely, the retention rates for women from baseline to post-test was 100%, and from post-test to 2 to 3-month follow-up was approximately 83.3%. When we examine differences between groups on retention, we see that, at 2 to 3-month follow-up, the retention for the pre-treatment group was 75% (i.e., 9 out of 12 individuals) and for the no pre-treatment group, retention was at 100% (i.e., 13 out of 13 individuals). While the retention of the no pre-treatment group was higher, these percentages still remain relatively high. Perhaps some explanation for the higher rate of retention in the no pre-treatment group include that there were more African American women in this group. An alternate explanation is that women in the no pre-treatment group only had to come in for 3 sessions total as opposed to 3 sessions plus an individual session. Condensing the pre-treatment session into the overall intervention may help to increase retention among women in this condition.

There are several reasons for the high level of retention across the three time points of the study. One method of retention that seemed particularly successful was the creation of a closed Facebook group for each group after meeting for the second session. On these groups,

participants were encouraged to post body-positive quotes or articles, or simply just check in with other members. Members were able to keep in touch with other group members as well as the facilitators for these groups. They might have been more willing to attend a follow-up session as a result of maintaining these relationships. Another method that may have increased retention was text reminders. I found that the most effective way to communicate with women was to send text reminders to them approximately an hour or two before their 2 or 3-month follow-up session. Despite having e-mail available on their phones, participants appeared to be much more receptive to texts rather than e-mails and the response rates from texts were much higher. One final possibility is the nature of the group itself. Women were very eager to discuss concerns about body image with others, and past research has found that small peer discussion groups are effective in changing women's health behaviors (Hoddinott, Allan, Avenell, & Britten, 2010). Women might be much more motivated than men to participate in a group using this format, and may have been doubly motivated to participate with other women from their own racial and ethnic group.

I was also interested in examining preliminary outcome measures such as eating pathology, body dissatisfaction, and attitudes towards seeking treatment among women in the groups. Overall preliminary results indicated that there were not many differences on scores between the two groups across the different variables besides for body dissatisfaction. Surprisingly, the pre-treatment group had higher scores across all measures at baseline. One particularly interesting finding was that the pre-treatment group's body dissatisfaction was more than double than that of the no pre-treatment group across all time points of the intervention. Further, they appeared to have increased in body dissatisfaction from baseline to follow-up, in

contrast with the no-pre-treatment group, whose body dissatisfaction decreased from baseline to follow-up. One potential explanation for this trend may be the time during which pre-treatment groups were run. From the results of the on-line randomizer, pre-treatment sessions for both groups took place later than no-pre-treatment groups (refer to Figure 1). It just so happened that the majority of the 2 to 3-month follow-up sessions for the pre-treatment groups took place after New Year's Day 2017. Thus, women may have been more likely to have made New Year's resolutions relating to weight loss, and their levels of body dissatisfaction may have been elevated at post-test as a result.

Another potential explanation for this difference in body dissatisfaction between the pre-treatment and no pre-treatment group was that there were more African American women enrolled in the pre-treatment group than Asian American women. While there were more African American women in the pre-treatment group (i.e., 7 African American women and 5 Asian American women), there were substantially more in the no pre-treatment group (i.e., 9 African American women to 4 Asian American women). Racial and ethnic differences in overall levels of body dissatisfaction may have been confounded as a result.

One limitation that will be discussed later is that of the small period of time between the post-test and the 2 to 3-month follow-up session; this amount of time may not have been sufficient enough to see sustainable change on these outcomes.

When examining demographic differences between the groups, there were some differences between age and education level which may partially explain these discrepancies. For instance, the average age in the pre-treatment group was 20.42 years of age, as opposed to 22 in the no pre-treatment group. In addition, the no pre-treatment group had a generally higher level

of education than the pre-treatment group, with 6 individuals ranging from having graduated from a 4-year college to having earned a graduate degree. Alternately, in the pre-treatment group, only 1 individual had earned a graduate degree, and the majority of individuals were currently in college ( $N = 8$ ). It may be the case that women who are a. older, and b. more highly educated are more secure in their body image and less prone to engaging in unhealthy eating behaviors. Despite these differences, there were minimal differences in weight and height between the two groups at baseline.

Another dimension on which participants did not differ across the three time points was attitudes towards seeking professional psychological help. Further, participants did not change greatly from baseline to follow-up on this measure. One potential explanation for this steady score across both the pre-treatment and no pre-treatment group is that the intervention did not tap directly into attitudes towards mental health treatment. The script for the Body Project includes one small section in which facilitators mention that internalizing the thin-ideal may lead to poor mental health, depression, and anxiety, but this is the only component of the intervention that discusses this parameter of body image. Future implementations of this pilot intervention may wish to incorporate a module specifically about mental health treatment-seeking.

An alternate explanation for the lack of difference in attitudes is that, while the pre-treatment scripts for both Asian American and African American participants included an activity discussing cultural stigma around mental health, this discussion was not carried over to the intervention itself. Several participants agreed that cultural stigma around mental health existed within their families, and proceeded to discuss ways to combat this stigma during the pre-

treatment. However, this discussion may not have been enough to increase positive attitudes toward mental health treatment over the course of the intervention.

One final potential explanation for this lack of difference in attitudes towards seeking treatment is the sociohistorical context during which the pilot intervention took place. The initial intervention groups started in August 2016 and final data collection occurred in April 2017. During this time, the administration changed from a Democratic presidency to a Republican presidency. Under this president, several minority groups have reported feeling marginalized and have reported increases in depression and anxiety (e.g., Schreiber & Hausenblas, 2017). In addition, mental health legislation is under greater scrutiny under President Trump. A Google search of the term “mental health in the era of trump” yields over 909,000 results, and includes articles with headlines such as “Mental Health Professionals Warn About Trump” (New York Times, 2017) to “America’s Therapists Are Worried About Trump’s Effect on Your Mental Health” (Politico, 2016). Women of color may feel the effects of a changing administration as it affects their intersecting identities as females and racial and ethnic minority individuals. As a result, they may be more willing to seek treatment for psychological help in order to reduce heightened levels of anxiety and depression.

Overall, the preliminary results of the pilot intervention are to be interpreted cautiously, and may need further refinement for a future, definitive trial.

### **Objective 5**

The final objective was to evaluate the acceptability of the pilot intervention among African American and Asian American women. Acceptability was measured via a triangulation of methods, including closure discussions with participants, detailed observation notes from a

trained research assistant, and an in-depth exit interview with the intervention co-facilitator. Across these three methods, it appeared that the implementation of the pre-treatment as well as the intervention was highly acceptable among groups. From closure discussions, participants reported high levels of satisfaction with the content of the intervention (e.g., activities and discussions), as well as engagement from facilitators. Observation notes revealed that body language was mostly positive among both the Asian American and African American groups and there was a high level of enthusiasm and engagement from participants in the pre-treatment and during the intervention sessions. Finally, the interview with the co-facilitator also suggested that participants were, for the most part, interested in the intervention sessions and remained engaged.

Other methods may have further validated the acceptability of the pre-treatment and intervention. These include soliciting anonymous feedback from participants after each session, having an external observer who was not trained by me, and having an external interviewer who did not co-facilitate sessions.

In summary, the acceptability of the pilot intervention was validated via closure discussions, observation notes, and an exit interview with the co-facilitator. All of these methods indicated a high degree of acceptability.

## **Implications**

The current dissertation has several implications for future research, most particularly implications for programs implemented among women of color and for related research.

**Future programs among women of color.** The aim of this study was to test the feasibility of the cultural adaptation of an eating disorder prevention intervention among women of color, namely African American and Asian American women. Focus group findings revealed



that there were culturally specific attitudes for Asian American and African American women that should be considered in programs to reduce body image problems and eating disorders. For example, both groups appeared to be very affected by the opinions of family members when it came to appearance. Thus, future iterations of body acceptance interventions could incorporate family members and how to respond to family members' comments about appearance, perhaps by building interpersonal communication skills. For instance, one potential study design could be to conduct the intervention with women and their mothers to see if there is an interaction of relationship on outcomes of interest.

Although preliminary descriptive findings indicated that levels of body dissatisfaction, eating pathology, and attitudes towards treatment-seeking were either higher or similar to that of the no pre-treatment group at post-test and 2 to 3-month follow-up, these findings merit further investigation. A small sample size prevented a definitive test of program effects. However, overall triangulation of focus group discussions, intervention discussions, third-party observations, and an exit interview with the co-facilitator indicated that women were responsive and enthusiastic about these topics. A future, definitive trial should obtain a sample well-powered enough to examine differences on these measures and related measures.

In addition, these findings suggest that interventions could be culturally adapted for women from other racial and ethnic minority groups. For instance, past research has found that eating disorders are prevalent among Latina women (Marques et al., 2011). Given that Latina women might be affected by cultural expectations of beauty and family ideals around body image and eating behaviors, this intervention should be piloted among this population.

**Future related research.** One of the central findings that emerged from the focus groups was that cultural and interpersonal influences may affect not only the emergence of body image and eating behaviors among women of color, but also the emergence of other mental illnesses. A future program of research would be to see if a cultural adaptation of an existing mental health intervention would increase positive outcomes among ethnic and racial minority women. In addition, programs to train mental health care providers may need to include components of cultural adaptation, and allow the provider to be familiarized with minority groups within their area. A final future direction could be to examine whether an even deeper-seated cultural adaptation would increase mental health treatment-seeking among marginalized groups. For instance, a recent survey conducted by the Virginia Commonwealth University Center on Society and Health found that individuals in a low socioeconomic setting in Richmond perceived several problems that prevented them from seeking treatment for mental health (Virginia Commonwealth University's Center on Society and Health, 2016). These problems included that mental health problems were stigmatized within their communities and that providers did not have good relationships with individuals in the area. Perhaps a program that aimed to increase collaborative efforts within the community via participation from residents, providers, and community partners would help to increase treatment-seeking.

### **Limitations and Lessons Learned**

**Study 1.** Across the conditions of the focus groups, several limitations emerged that could be addressed in a future trial of the SATED intervention.

Overall, the study contains some limitations that may not speak to Asian or African American women in emerging adulthood as a whole in regards to these topics. For instance,

there was much diversity within the Asian American groups, with subgroup ethnicities ranging from Indian to Pakistani to Filipino to Chinese, et cetera. Some individuals mentioned factors that were not mentioned in other subgroups. One memorable example is two Indian women bringing up the cultural expectation that Indian women need to appear as excellent child bearers in order to be suitable contenders for marriage. This sentiment did not necessarily extend to other Asian subgroups. However, the central themes found in the grounded theoretical model seemed to extend across Asian subgroups, so subgroup differences may take a backseat to the larger picture.

Another limitation of the study is with the age range of the sample. This range was small and included only women in early emerging adulthood. Perceptions of the individuals in this age range may not speak to women experiencing other barriers in middle-to-late adulthood. For instance, several individuals mentioned the presence of health care as a motivating factor for a woman to seek out treatment or stay in treatment for eating disorders. Under the current Affordable Care Act, individuals can stay on their parents' health care plans until the age of 26 (Patient Protection and Affordable Care Act, 2010). For women who are able to obtain their own health care after this age, the security of having health care, as well as the autonomy to obtain treatment within the guidelines of their own health care plan, might motivate them to seek treatment for mental illness and eating disorders. However, this is a supposition that cannot be gleaned using the current sample.

A third limitation is that focus groups ranged in size from 3 to 6 women, and there was some variation in how talkative some groups were compared with others. However, themes discussed in this section were highly saturated across groups and were mentioned in at least 4 of

6 focus groups for each theme. Thus, the size of the focus group did not necessarily mean that smaller groups were less talkative than larger groups.

One final limitation is that women in this study were mainly college-educated. Racial and ethnic minority women who are students at a predominantly White university in the United States may have a different perspective when it comes to body image and eating behaviors than non-college-educated women in this age group. Attempts were made to recruit women from the community and not from the university, but these attempts were not successful in the Asian groups. In the African American groups, some community women were recruited, but this sample could be increased in order to further examine potential differences in a future, definitive trial.

**Study 2.** Overall results from the pilot intervention are mixed. Whereas oral feedback from the participants and the co-facilitator, and retention rates suggest that the pilot was a success, preliminary outcomes call for a need to make further adjustments for future trials. Indeed, several limitations existed in this pilot study and should be addressed in a definitive trial.

Probably the largest limitation of the current study was the small sample size. Although some pilot intervention studies include participant pools as small as 10 individuals (e.g., Sohl et al., 2016), these numbers range across different interventions and may include upwards of 50 individuals. Having a relatively small sample of 25 women limited the inability to run statistical tests that had enough power to reveal significant differences between the pre-treatment and no pre-treatment groups. One way in which this lack of power was demonstrated was with the small effect sizes obtained for groups at 2 to 3-month follow-up. Effect sizes ranged from 0.03 to 0.50, which would be considered a medium effect size at best. Additionally, while descriptive statistics

suggested some differences between women in both groups, these differences may have been the result of chance. Alternately, the two groups did not differ on some outcomes (e.g., attitudes towards treatment-seeking), and a larger trial may reveal that there *are* differences on these measures. All in all, any and all findings must be interpreted with caution from a feasibility trial, and the current study was no exception to this rule.

A second limitation is the randomization of the study. While I used an online randomizer, the resulting outcome was that the majority of the pre-treatment condition was conducted at a later stage than the no pre-treatment groups. As a result, there were some differences on outcomes of interest (e.g., body dissatisfaction) that may be partially explainable by the time during which the pre-treatment groups were conducted. In a full-scale trial, it would be important to ensure that there was more variation in the randomization of groups to avoid this confound.

At the recruitment stage, one major limitation was that it was more difficult to recruit women for the Asian American sample. I initially hypothesized that I would be able to get an equal number of women from both the community as well as the university for both the Asian American and African American groups. As recruitment proceeded, however, this was not the case. Despite making initial contact with several Asian American community organizations, these relationships fell through during the duration of the study. One lesson to be learned from this experience is the importance of having an established relationship with these organizations. Upon the initial meeting with the Asian American Society of Central Virginia, one stakeholder told me that they had previously worked with an individual from the university who promised to deliver outcomes from a study using Asian American community members; however, they did not come through with a report. Thus, they were wary of other individuals coming to recruit from

their groups for research purposes. From my experience working with other groups, having had an established relationship prior to this meeting may have helped to ease those fears. Alternately, having an individual who is *already* an established member of the community group may help. This was the case for my African American community sample. I had previously established a relationship with an individual from St. Paul's Baptist Church, and it was this individual who helped me to recruit additional women for the intervention.

In terms of methodology, there were several limitations that merit change in future trials. The first limitation is that participant satisfaction surveys were not conducted after either the pre-treatment or intervention sessions. In order to get a better feel for acceptability of the pilot intervention, it is necessary to administer these surveys in future trials. These satisfaction surveys should ask questions such as: (1) What about the pre-treatment did you like or not like? (2) What about the session did you like or not like? (3) Please provide your rating for the facilitators on a scale of 1-5, with one being dismal and five being wonderful; and (4) Please provide any suggestions for this session. Satisfaction surveys can help to shape future trials so that the intervention improves and becomes better-tailored for the groups.

Another limitation is that member-checking was not used to check that the content of the focus group analyses and the pre-treatment was acceptable to both African American and Asian American women. A future trial should take a draft of the pre-treatment protocol and present it to 1 or 2 of the individuals who participated in the focus groups to see if the protocol was true to the discussion.

A second limitation in method was that participants in the pilot intervention self-reported their weight and height, as opposed to being measured on these parameters by study staff. Past

studies have found that there is a significant difference in self-reported weight and height and actual weight and height (Bowring et al., 2012). This self-report may not have revealed true differences between the pre-treatment and no pre-treatment groups which may have partially explained differences in scores for these individuals on measures such as body dissatisfaction and eating pathology.

Another limitation is that all pre-treatment sessions were convened by me, an Asian American female (due to scheduling conflicts of the African American co-facilitator). Although ethnic minority women may share some commonalities, it would have been preferable to have an African American female deliver the pre-treatment intervention to African American participants. All intervention sessions were co-facilitated by me and an African American graduate student.

A final limitation is the small amount of time between post-test and follow-up, as well as the inconsistency in collecting follow-up data after the same amount of time for each participant. Due to scheduling and time constraints, some participants were contacted for follow-up after only 2 months, and the first two groups of African American women completed follow-up assessments after 3 months. There may be variations in follow-up data between those who completed assessments at 2 months versus 3 months. In studies that attempt to examine change at a very deep level (i.e., cognitive change and deep-seated cultural change), there may need to be a longer period of time between the conclusion of the intervention and follow-up in order to see lasting, sustainable change, and this period of time needs to be consistent throughout groups.

## Conclusion

This dissertation aimed to test the feasibility of the SATED intervention via qualitative focus groups and a pilot intervention. Although results are preliminary, several take-home messages can be gleaned from dissertation findings. Whereas previous research has determined that cultural adaptation is non-essential in changing health behaviors including eating disorders, I have found through this research that there may be much more to the story. Among both African American women and Asian American women, there are a host of unique determinants of body image and eating behaviors. These factors vary by cultural group, and may be integral in the motivation for individuals to seek treatment not only for eating disorders, but for other mental illnesses. Thus, while major grant agencies might be moving towards health interventions that are generalizable to many groups, for certain conditions including mental health, it may be important to take individual nuances into account in order to develop *better* programs for women. It is my hope that researchers in this area and related areas continue to move towards a holistic model of health. Not only should we be concerned with individual factors that determine the development of certain attitudes and health behaviors in individuals, but we should examine this development through several different lenses: social, historical, environmental, and cultural contexts included.



## **List of References**

## List of References

- Abbas, S., Damani, S., Malik, I., Button, E., Aldridge, S., & Palmer, R. L. (2010). A comparative study of South Asian and non- Asian referrals to an eating disorders service in Leicester, UK. *European Eating Disorders Review*, *18*, 404-409. doi:10.1002/erv.1033.
- Adamus-Leach, H. J., Wilson, P. L., O'Connor, D. P., Rhode, P. C., Mama, S. K., & Lee, R. E. (2013). Depression, stress and body fat are associated with binge eating in a community sample of African American and Hispanic women. *Eating and Weight Disorders*, *18*(2), 221-227.
- Adenponle, A. B., Thombs, B. D., Groleau, D., Jarvis, E., & Kirmayer, L. J. (2012). Using the cultural formulation to resolve uncertainty in diagnoses of psychosis among ethnoculturally diverse patients. *Psychiatric Services*, *63*(2), 147-153.
- Agh, T., Kovacs, G., Pawaskar, M., Supina, D., Inotai, A., & Voko, Z. (2015). Epidemiology, health-related quality of life and economic burden of binge eating disorder: A systematic literature review. *Eating and Weight Disorders*, *20*(1), 1-12. doi: 10.1007/s40519-014-0173-9.
- Alegría, M., Chatterji, P., Wells, K., Cao, Z., Chen, C., Takeuchi, D., & Meng, X. (2008). Disparity in depression treatment among racial and ethnic minority populations in the United States. *Psychiatric Services*, *59*, 1264–1272
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.
- Arcelus, J., Mitchell, A. J., Wales, J., & Nielsen, S. (2011). Mortality rates in patients with anorexia nervosa and other eating disorders: A meta-analysis of 36 studies. *Archives of General Psychiatry*, *68*(7), 724-731.
- Ausberger, A., Yeung, A., Dougher, M., & Hahm, H. C. (2015). Factors influencing the underutilization of mental health services among Asian American women with a history of depression and suicide. *BMC Health Services Research*, *15*, 542.

- Avalos, L., Tylka, T. L., & Wood-Barcalow, N. (2005). The Body Appreciation Scale: Development and psychometric evaluation. *Body Image, 2*, 285-297.
- Axsom, D., & Cooper, J. (1981). Reducing weight by reducing dissonance: The role of effort justification in inducing weight loss. In E. Aronson (Ed.), *Readings about the social animal* (3rd ed., pp. 181-196). San Francisco, CA: Freeman.
- Ball, K., Lee, C. (1999). Psychological stress and disordered eating: An exploratory study with young Australian women. *Women and Health, 29*(2), 1-15.
- Bardone-Cone, A. M., & Boyd, C. A. (2007). Psychometric properties of eating disorder instruments in Black and White young women: Internal consistency, temporal stability, and validity. *Psychological Assessment, 19*(3), 356-362.
- Barnett, L. A., Far, J. M., Mauss, A. L., & Miller, J. A. (1996). Changing perceptions of peer norms as a drinking reduction program for college students. *Journal of Alcohol and Drug Education, 41*, 39-62.
- Becker, C. B., Bull, S., Schaumberg, K., Cauble, A., & Franco, A. (2008). Effectiveness of peer-led eating disorders prevention: A replication trial. *Journal of Consulting and Clinical Psychology, 76*(2), 347-354.
- Becker, C. B., Smith, L. M., & Ciao, A. C. (2006). Peer facilitated eating disorders prevention: A randomized effectiveness trial of cognitive dissonance and media advocacy. *Journal of Counseling Psychology, 53*, 550-555.
- Bearman, S. K., Martinez, E., Stice, E., & Presnell, K. (2006). The skinny on body dissatisfaction: A longitudinal study of adolescent girls and boys. *Journal of Youth and Adolescence, 35*(2), 217-229.
- Becker, A. E., Franko, D. L., Speck, A., & Herzog, D. B. (2003). Ethnicity and differential access to care for eating disorder symptoms. *International Journal of Eating Disorders, 33*(2), 205-212.
- Belgrave, F. Z., Reed, M. C., Plybon, L. E., & Corneille, M. (2004). The impact of a culturally enhanced drug prevention program on drug and alcohol refusal efficacy among urban African American girls. *Journal of Drug Education, 34*, 267-279.
- Berg, K. C., Peterson, C. B., Frazier, P., & Crow, S. J. (2012). Psychometric evaluation of the Eating Disorder Examination and Eating Disorder Examination-Questionnaire: A systematic review of the literature. *International Journal of Eating Disorders, 45*(3), 428-438.
- Berry, J. W. (1998). Acculturation and health: Theory and research. In S. S. Kazarian and D. R. Evans (eds.), *Cultural Clinical Psychology: Theory, Research, and Practice* (pp. 39-57). New York, NY: Oxford University Press.

- Blair, I. V., Steiner, J. F., & Havranek, E. P. (2011). Unconscious (implicit) bias and health disparities: Where do we go from here? *The Permanente Journal*, *15*(2), 71-78.
- Bowring, A. L., Peeters, A., Freak-Poli, R., Lim, M. S. C., Gouillou, M., & Hellard, M. (2012). Measuring the accuracy of self-reported height and weight in a community-based sample of young people. *BMC Medical Research Methodology*, *12*, 175.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77-101.
- Broman, C. L. (2012). Race differences in the receipt of mental health services among young adults. *Psychological Services*, *9*(1), 38-48.
- Cachelin, F.M., Veisel, C., Striegel-Moore, R.H., & Barzegarnazari, E. (2000). Disordered eating, acculturation, and treatment seeking in a community sample of Hispanic, Asian, Black, and White women. *Psychology of Women Quarterly*, *24*, 156–165.
- Charmaz, K. (2000). Grounded theory: Objectivist and constructivist methods. In N. K. Denzin & Y.E. Lincoln (Eds). *Handbook of qualitative research*. Thousand Oaks, CA: Sage.
- Charmaz, K. (2005). Grounded theory in the 21st century: A qualitative method for advancing social justice research. In N. K. Denzin & Y. E. Lincoln (Eds.) *Handbook of qualitative research* (3rd ed., pp. 507– 535). Thousand Oaks, CA: Sage.
- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. London: Sage Publications.
- Chentsova-Dutton, Y. E., & Tsai, J. (2009). Understanding depression across cultures. In I. Gotlib & C. Hammen (Eds.), *Handbook of depression* (2<sup>nd</sup> ed.). New York, NY: Guilford Press.
- Cohen, J. (1977). *Statistical Power Analysis for the Behavioral Sciences*. New York, NY: Academic Press.
- Corbin, J., & Strauss, A. (2014). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (4<sup>th</sup> ed.). Thousand Oaks, CA: Sage.
- Cotter, E. W., Kelly, N. R., Mitchell, K. S., & Mazzeo, S. E. (2015). An investigation of body appreciation, ethnic identity, and eating disorder symptoms in Black women. *Journal of Black Psychology*, *41*(1), 3-25.
- Crow, S., Peterson, C., Swanson, S., Raymond, N., Specker, S., Eckert, E. D., & Mitchell, J. (2009). Increased mortality in bulimia nervosa and other eating disorders. *American Journal of Psychiatry*, *166*, 1342–1346.

- Crowder, S., & Broome, M. (2012). A framework to evaluate the cultural appropriateness of intervention research. *Western Journal of Nursing Research*, *34*, 1002-1022.
- Cummins, L. H., & Lehman, J. (2007). Eating disorders and body image concerns in Asian American women: assessment and treatment from a multicultural and feminist perspective. *Eating Disorders*, *15*(3), 217-230.
- Cummins, L. H., Simmons, A. M., & Zane, N. W. (2005). Eating disorders in Asian populations: a critique of current approaches to the study of culture, ethnicity, and eating disorders. *Journal of American Orthopsychiatry*, *75*(4), 553-574.
- Davis, C., Kennedy, S. H., Ravelski, E., & Dionne, M. (1994). The role of physical activity in the development and maintenance of eating disorders. *Psychological Medicine*, *24*(4), 957-967.
- De Braganza, N., & Hausenblas, H. A. (2010). Media exposure of the ideal physique on women's body dissatisfaction and mood: The moderating effects of ethnicity. *Journal of Black Studies*, *40*, 700 – 716.
- Dowling, M. (2008). Atlas.ti (software). In L. Given (Ed.), *The SAGE Encyclopedia of Qualitative Research Methods* (pp. 37-38). Thousand Oaks, CA: Sage.
- Eaton, D. K., Kann, L., Kinchen, S., Shanklin, S. Flint, K. H., Hawkins, J., ... Centers for Disease Control and Prevention (CDC). (2012). Youth risk behavior surveillance – United States, 2011. *MMWR Surveillance Summary*, *61*(4), 1-162.
- Eisenberg, D., Nicklett, E. J., Roeder, K., & Kirz, N. (2011). Eating disorder symptoms among college students: Prevalence, correlates, and treatment-seeking. *Journal of American College Health*, *59*(8), 700-707.
- Everyday Feminism. (2016). 3 damaging stereotypes about black women that need to go. Retrieved from <http://everydayfeminism.com/2016/06/black-female-stereotypes/> on April 17, 2017.
- Fairburn, C. G. (2008). Eating Disorder Examination. In *Cognitive Behavior Therapy and Eating Disorders*. New York, NY: Guilford Press.
- Fairburn, C. G., & Bèglin, S. J. (1994). Assessment of eating disorders: Interview or self-report questionnaire? *International Journal of Eating Disorders*, *16*(4), 363-370.
- Fairburn, C. G., & Cooper, Z. (1993). The Eating Disorder Examination (12<sup>th</sup> ed.). In C. G. Fairburn & G. T. Wilson (eds.). *Binge Eating: Nature, Assessment and Treatment*. (pp. 317-360). New York, NY: Guilford Press.

- Fairburn, C. G., Cooper, Z., Doll, H. A., & Davies, B. A. (2005). Identifying dieters who will develop an eating disorder: A prospective, population-based study. *American Journal of Psychiatry, 162*(12), 2249-2255.
- Fairburn, C. G., Cooper, Z., Doll, H. A., Norman, P., & O'Connor, M. (2000). The natural course of bulimia nervosa and binge eating disorder in young women. *Archives of General Psychiatry, 57*(7), 659-665.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.
- Fischer, C. T. (2009). Bracketing in qualitative research: Conceptual and practical matters. *Psychotherapy Research, 19*(4-5), 583-590.
- Fischer, E., & Farina, A. (2001). Attitudes toward seeking psychological professional help: A shortened form and considerations for research. *Journal of College Student Development, 36*, 368-373.
- Forbes, G. B., & Frederick, D. A. (2008). The UCLA Body Project II: Breast and body dissatisfaction among African, Asian, European, and Hispanic American college women. *Sex Roles, 58*, 449-457.
- Franko, D. L., Becker, A. E., Thomas, J. J., & Herzog, D. B. (2007). Cross-ethnic differences in eating disorder symptoms and related distress. *International Journal of Eating Disorders, 40*(2), 156-164.
- Freijy, T., & Kothe, E. J. (2013). Dissonance-based interventions for health behaviour change: A systematic review. *British Journal of Health Psychology, 18*(2), 310-337.
- Gardner, R. M., Jappe, L. M., & Gardner, L. (2009). Development and validation of a new figural drawing scale for body-image assessment: The BIAS-BD. *Journal of Clinical Psychology, 65*(1), 113-122.
- Garner, D. M., & Garfinkel, P. E. (1979). The Eating Attitudes Test: An index of the symptoms of anorexia nervosa. *Psychological Medicine, 9*, 273-279.
- Garner, D. M., Olmstead, M. P., & Polivy, J. (1983). Development and validation of a multidimensional eating disorder inventory for anorexia nervosa and bulimia. *International Journal of Eating Disorders, 2*(2), 15-34.
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago, IL: Aldine Publishing Company.
- Gordon, K. H., Brattole, M. M., Wingate, L. R., & Joiner, T. E. (2006). The impact of client race on clinician detection of eating disorders. *Behavior Therapy, 37*(4), 319-25.

- Gordon, K. H., Perez, M., & Joiner, T. E. (2002). The impact of racial stereotypes on eating disorder recognition. *International Journal of Eating Disorders, 32*(2), 219-224.
- Grabe, S., & Hyde, J. S. (2006). Ethnicity and body dissatisfaction among women in the United States: a meta-analysis. *Psychological Bulletin, 132*(4), 622-640.
- Gupta, A., Szymanski, D. M., & Leong, F. T. L. (2011). The “model minority myth”: Internalized racism of positive stereotypes as correlates of psychological distress, and attitudes toward help-seeking. *Asian American Journal of Psychology, 2*(2), 101-114.
- Hall, G. N., & Eap, S. (2007). Empirically supported therapies for Asian Americans. In F. T. L. Leong, A. G. Inman, A. Ebreo, L. H. Yang, L. Kinoshita, & M. Fu (Eds.), *Handbook of Asian American psychology* (2<sup>nd</sup> ed., pp. 449-467). Thousand Oaks, CA: Sage.
- Hay, P., & Williams, S. E. (2013). Exploring relationships over time between psychological distress, perceived stress, life events, and immature defense style on disordered eating pathology. *BMC Psychology, 1*(27), 1-8.
- Hoddinott, P., Allan, K., Avenell, A., & Britten, J. (2010). Group interventions to improve health outcomes: A framework for their design and delivery. *BMC Public Health, 10*, 800.
- Hoeffel, E. M., Rastogi, S., Kim, M. O., & Shahid, H. (2012). The Asian Population: 2010. *United States Census Bureau: 2010 Census Briefs*, 1-23.
- Hoek, H. W. (2006). Incidence, prevalence, and mortality of anorexia nervosa and other eating disorders. *Current Opinion in Psychiatry, 19*(4), 389-394.
- Hoek, H. W., & van Hoeken, D. (2003). Review of the prevalence and incidence of eating disorders. *International Journal of Eating Disorders, 34*(4), 383-396.
- Hudson, J. I., Hiripi, E., Pope, H. G., & Kessler, R. C. (2007). The prevalence and correlates of eating disorders in the National Comorbidity Survey Replication. *Biological Psychiatry, 61*, 348-358.
- Iwamoto, D. (2010). The impact of racial identity, ethnic identity, Asian values, and race related stress on Asian Americans and Asian international college students' psychological well-being. *Journal of Counseling Psychology, 57*(1), 79-91.
- Jackson-Gilfort, A., Liddle, H. A., Tejada, M. J., & Dakof, G. A. (2001). Facilitating engagement of African male adolescents in family therapy: A cultural theme process study. *Journal of Black Psychology, 27*, 321-340.
- Javier, S. J., & Belgrave, F. Z. (2015). An examination of influences on body dissatisfaction among Asian American college females: Do family, media, or peers play a role? *Journal of American College Health*. doi: 10.1080/07448481.2015.1031240.

- Javier, S. J., Moore, M. P., & Belgrave, F. Z. (2016). Racial comparisons in perceptions of maternal and peer attitudes, body dissatisfaction, and eating disorders among African American and White women. *Women & Health, 56*(6), 615-633. doi: 10.2015.1118721.
- Johnson, F., & Wardle, J. (2005). Dietary restraint, body dissatisfaction, and psychological distress: A prospective analysis. *Journal of Abnormal Psychology, 114*(1), 119-125.
- Johnson, J. G., Cohen, P., Kasen, S., & Brook, J. S. (2002). Eating disorders during adolescence and the risk for physical and mental disorders during early adulthood. *Archives of General Psychiatry, 59*(6), 545-552.
- Keery, H., van den Berg, P., & Thompson, J. K. (2004). An evaluation of the Tripartite Influence Model of body dissatisfaction and eating disturbance with adolescent girls. *Body Image, 1*(3), 237-251.
- Kelly, N. R., Mitchell, K. S., Gow, R. W., Trace, S. E., Lydecker, J. A., Bair, C. E., & Mazzeo, S. (2012). An evaluation of the reliability and construct validity of eating disorder measures in white and black women. *Psychological Assessment, 24*(3), 608-617.
- Killen, J. D. (1985). Prevention of adolescent tobacco smoking: The social pressure resistance training approach. *Journal of Child Psychology and Psychiatry, 26*(1), 7-15.
- Kim, B. S. K., & Omizo, M. M. (2003). Asian cultural values, attitudes toward seeing professional psychological help and willingness to see a counselor. *The Counseling Psychologist, 31*, 343-361.
- Kreuter, M., Lukwago, S., Bucholtz, D., Clark, E., & Sanders-Thompson, V. (2003). Achieving cultural appropriateness in health promotion programs: Targeted and tailored approaches. *Health Education Behavior, 30*, 133-146.
- Kroon Van Diest, A. M., Tartakovsky, M., Stachon, C., Pettit, J. W., & Perez, M. (2014). The relationship between acculturative stress and eating disorder symptoms: Is it unique from general life stress? *Journal of Behavioral Medicine, 37*(3), 445-457.
- Kulis, S., Dustman, P. A., Brown, E. F., & Martinez, M. (2013). Expanding urban American Indian youths' repertoire of drug resistance skills: Pilot results from a culturally adapted prevention program. *American Indian and Alaska Native Mental Health Research, 20*(1), 35-54.
- Lee-Winn, A., Mendelson, T., & Mojtabai, R. (2014). Racial/ethnic disparities in binge eating: disorder prevalence, symptom presentation, and help-seeking among Asian Americans and non-Latino Whites. *American Journal of Public Health, 104*(7), 1263-1265. doi: 10.2105/AJPH.2014.301932.



- Leong, F. T., & Lee, S. H. (2006). A cultural accommodation model for cross-cultural psychotherapy: Illustrated with the case of Asian Americans. *Psychotherapy, 43*(4), 410-423.
- Lin, K. M., & Cheung, F. (1999). Mental health issues for Asian Americans. *Psychiatric Services, 50*(6), 774-780.
- Mama, S. K., Schembre, S. M., O'Connor, D. P., Kaplan, C. D., Bode, S., & Lee, R. E. (2015). Effectiveness of lifestyle interventions to reduce binge eating symptoms in African American and Hispanic women. *Appetite, 16*(95), 269-274. doi: 10.1016/j.appet.2015.07.015.
- Marques, L., Alegria, M., Becker, A. E., Chen, C., Fang, A., Chosak, A., & Belo Diniz, J. (2011). Comparative prevalence, correlates of impairment, and service utilization for eating disorders across US ethnic groups: Implications for reducing ethnic disparities in healthcare access for eating disorders. *International Journal of Eating Disorders, 44*, 412-420.
- McKnight Investigators. (2003). Risk factors for the onset of eating disorders in adolescent girls: results of the McKnight longitudinal risk factor study. *American Journal of Psychiatry, 160*(2), 248-254.
- Mehler, P. S., & Krantz, M. (2003). Anorexia nervosa medical issues. *Journal of Women's Health (Larchmont), 12*(4), 331-340.
- Meyer, O. L., & Zane, N. (2013). The influence of race and ethnicity in clients' experiences of mental health treatment. *Journal of Community Psychology, 41*(7), 884-901.
- Meyer, O. L., Zane, N., Cho, Y. I., & Takeuchi, D. T. (2009). Use of specialty mental health services by Asian Americans with psychiatric disorders. *Journal of Consulting and Clinical Psychology, 77*(5), 1000-1005.
- Millward, L. J. (2000). Focus groups. In G. M. Breakwell, S. Hammond, & C. Fife-Schaw (Eds.), *Research methods in psychology* (2<sup>nd</sup> ed., pp. 303-324). Thousand Oaks, CA: Sage.
- Mond, J. M., Hay, P. J., Rodgers, B., Owen, C., & Beumont, P. J. (2004). Temporal stability of the Eating Disorder Examination Questionnaire. *International Journal of Eating Disorders, 36*(2), 195-203.
- National Institute of Mental Health. (2014). *Eating disorders: About more than food*, NIH Publication No. TR 14-4901. Bethesda, MD: National Institute of Mental Health.
- National Institute of Mental Health. (2015). NIMH Strategic Plan for Research: Strategic Objective 4. Retrieved from <http://www.nimh.nih.gov/about/strategic-planning-reports/strategic-objective-4.shtml> on August 25, 2015.

- New York Times. (2017). Mental health professionals warn about Trump. Retrieved from <https://www.nytimes.com/2017/02/13/opinion/mental-health-professionals-warn-about-trump.html> on April 17, 2017.
- Nguyen, A. B., Belgrave, F. Z., Sholley, B. K. (2011). Development of a breast and cervical cancer screening approach for Vietnamese American women: A community-based participatory approach. *Health Promotion Practice, 12*(6), 876-886.
- Nielsen, S. (2001). Epidemiology and mortality of eating disorders. *Psychiatric Clinics of North America, 24*(2), 201-214.
- Ogden, C. L., Lamb, M. M., Carroll, M. D., & Flegal, K. M. (2010). Obesity and socioeconomic status in adults: United States, 2005-2008. *National Health Statistics Data Brief, 50*, 1-7.
- Okamoto, S. K., Kulis, S., Marsiglia, F. F., Holleran Steiker, L. K., & Dustman, P. (2014). A continuum of approaches toward developing culturally focused prevention interventions: From adaptation to grounding. *Journal of Primary Prevention, 35*(2), 103-112. doi: 10.1007/s10935-013-0334-z.
- Patient Protection and Affordable Care Act, 42 U.S.C. § 18001 (2010).
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Pérez-Stable, E. J., Marín, G., & Posner, S. F. (1998). Ethnic comparison of attitudes and beliefs about cigarette smoking. *Journal of General Internal Medicine, 13*, 167-174.
- Pike, K. M., Dohm, F. A., Striegel-Moore, R. H., Wilfley, D. E., & Fairburn, C. G. (2001). A comparison of Black and White women with binge eating disorder. *American Journal of Psychiatry, 158*(9), 1455-1460.
- Politico. (2016). America's therapists are worried about Trump's effect on your mental health. Retrieved from <http://www.politico.com/magazine/story/2016/10/donald-trump-2016-therapists-214333> on April 17, 2017.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers, 36*, 717-731.
- Pulvers, K. M., Lee, R. E., Kaur, H., Mayo, M. S., Fitzgibbon, M. L., Jeffries, S. K. ... & Ahluwalia, J. S. (2004). Development of a culturally relevant body image instrument among urban African Americans. *Obesity, 12*(10), 1641-1651.
- Random.org. (2017). Random.org. Retrieved from <https://www.random.org/> on April 17, 2017.

- Rastogi, S., Johnson, T. D., Hoeffel, E. M., & Drewery, M. P. (2011). The Black population: 2010. *The United States Census Bureau: 2010 Census Briefs*, 1-20.
- Rathod, S., Kingdon, D., Phiri, P., & Gobbi, M. (2010). Developing culturally sensitive cognitive behavior therapy for psychosis for ethnic minority patients by exploration and incorporation of service users' and health professionals' views and opinions. *Behavioral Cognitive Psychotherapy*, 38, 511-533.
- Reddit. (2017). /R/Asianfeminism. Retrieved from [https://www.reddit.com/r/asianfeminism/comments/3tr4m8/why\\_they\\_arent\\_completely\\_wrong\\_when\\_they\\_say/](https://www.reddit.com/r/asianfeminism/comments/3tr4m8/why_they_arent_completely_wrong_when_they_say/) on April 17, 2017.
- Regan, P. C., & Cachelin, F. M. (2006). Binge eating and purging in a multi-ethnic community sample. *International Journal of Eating Disorders*, 39, 523-526.
- Roberts, A. Cash, T., Feingold, A., & Johnson, B. T. (2006). Are Black-White differences in females' body dissatisfaction decreasing? A meta-analytic review. *Journal of Consulting and Clinical Psychology*, 74(6), 1121-1131.
- Roberts, R. E., Deleger, S., Strawbridge, W. J., & Kaplan, G. A. (2003). Prospective association between obesity and depression: Evidence from the Alameda County Study. *International Journal of Obesity Related Metabolic Disorders*, 27(4), 514-521.
- Rodriguez, R., Marchand, E., Ng, J., & Stice, E. (2008). Effects of a cognitive dissonance-based eating disorder prevention program are similar for Asian American, Hispanic, and White participants. *International Journal of Eating Disorders*, 41(7), 618-625.
- Root, M. (1990). Disordered eating in women of color. *Sex Roles*, 22(7/8), 525-536.
- Schreiber, K., & Hausenblas, H. (2017). How would Trumpcare affect mental health care? Retrieved from <https://www.psychologytoday.com/blog/the-truth-about-exercise-addiction/201703/how-would-trumpcare-affect-mental-health-care> on April 17, 2017.
- Shaw, H., Ramirez, L., Trost, A., Randall, P., & Stice, E. (2004). Body image and eating disturbances across ethnic groups: more similarities than differences. *Psychology of Addictive Behaviors*, 18(1), 12-18.
- Shisslak, C. M., Crago, M., McKnight, K. M., Estes, L. S., Gray, N., & Parnaby, O. (1998). Potential risk factors associated with weight control behaviors in elementary and middle school girls. *Journal of Psychosomatic Research*, 44, 301-313.
- Shuttlesworth, M. E., & Zotter, D. (2011). Disordered eating in African American and Caucasian women: the role of ethnic identity. *Journal of Black Studies*, 42(6), 906-922.
- Sinha, S., & Warfa, N. (2013). Treatment of eating disorders among ethnic minorities in western settings: a systematic review. *Psychiatra Danubia*, 25(Suppl. 2), S295-S299.

- Slane, J. D., Klump, K. L., McGue, M., & Iacono, W. G. (2014). Developmental trajectories of disordered eating from early adolescence to young adulthood: A longitudinal study. *International Journal of Eating Disorders, 47*(7), 793-801. doi: 10.1002/eat.22329.
- Smolak, L. (2011). Body image development in childhood. In T. Cash & L. Smolak (Eds.), *Body image: A handbook of science, practice, and prevention* (2nd ed.). New York, NY: Guilford.
- Sohl, S. J., Danhauer, S. C., Birdee, G. S., Nicklas, B. J., Yacoub, G., Aklilu, M., & Avis, N. E. (2016). A brief yoga intervention implemented during chemotherapy: A randomized controlled pilot study. *Complementary Therapies in Medicine, 25*, 139-142.
- Stice, E. (1994). Review of the evidence for a sociocultural model of bulimia nervosa and an exploration of the mechanisms of action. *Clinical Psychology Review, 14*(7), 633-661.
- Stice, E. (2001). A prospective test of the dual-pathway model of bulimic pathology: Mediating effects of dieting and negative affect. *Journal of Abnormal Psychology, 110*(1), 124-135.
- Stice, E., Cameron, R. P., Killen, J. D., Hayward, C., & Taylor, C. B. (1999). Naturalistic weight-reduction efforts prospectively predict growth in relative weight and onset of obesity among female adolescents. *Journal of Consulting and Clinical Psychology, 67*(6), 967-974.
- Stice, E., Davis, K., Miller, N. P., & Marti, C. N. (2008a). Fasting increases risk for onset of binge eating and bulimic pathology: a 5-year prospective study. *Journal of Abnormal Psychology, 117*(4), 941-946.
- Stice, E., Marti, C. N., & Cheng, Z. H. (2014). Effectiveness of a dissonance-based eating disorder prevention program for ethnic groups in two randomized controlled trials. *Behaviour Research and Therapy, 55*, 54-64.
- Stice, E., Marti, C. N., & Durant, S. (2011). Risk factors for onset eating disorders: Evidence of multiple risk pathways from an 8-year prospective study. *Behaviour Research and Therapy, 49*(10), 622-627.
- Stice, E., Marti, C. N., Spoor, S., Presnell, K., & Shaw, H. (2008b). Dissonance and healthy weight eating disorder prevention programs: Long-term effects from a randomized efficacy trial. *Journal of Consulting and Clinical Psychology, 76*(2), 329-340.
- Stice, E., Marti, C.N., & Rohde, P. (2013a). Prevalence, incidence, impairment, and course of the proposed DSM-5 eating disorder diagnoses in an 8-year prospective community study of young women. *Journal of Abnormal Psychology, 122*, 445-457. <http://dx.doi.org/10.1037/a0030679>.
- Stice, E., Rohde, P., & Shaw, H. (2013b). *The body project: A dissonance-based eating*

- disorder prevention intervention* (2<sup>nd</sup> ed.). New York, NY: Oxford University Press.
- Stice, E., Rohde, P., Gau, J., & Shaw, H. (2009). An effectiveness trial of a dissonance-based eating disorder prevention program for high-risk adolescent girls. *Journal of Consulting and Clinical Psychology, 77*(5), 825-834.
- Stone, J., Aronson, E., Craing, A. L., Winslow, M. P., & Fried, C. B. (1994). Inducing hypocrisy as a means of encouraging young adults to use condoms. *Personality and Social Psychology Bulletin, 20*, 116–128.
- Strauss, A. L., & Corbin, J. M. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Thousand Oaks, CA: Sage.
- Striegel-Moore, R. H., Dohm, F. A., Kraemer, H. C., Taylor, C. B., Daniels, S., Crawford, P. B., & Schreiber, G. B. (2003). Eating disorders in white and black women. *American Journal of Psychiatry, 160*(7), 1326-1331.
- Striegel-Moore, R. H., Pike, K. M., Wilfley, D. E., Dohm, F. A., & Fairburn, C. G. (2000). Recurrent binge eating in Black American women. *Archives of Family Medicine, 9*, 83-87.
- Striegel-Moore, R. H., Rosselli, F., Perrin, N., DeBar, L., Wilson, G. T., May, A., & Kraemer, H. C. (2009). Gender difference in the prevalence of eating disorder symptoms. *International Journal of Eating Disorders, 42*(5), 471-474.
- Swami, V., Airs, N., Chouhan, B., Leon, M. A. P., & Towell, T. (2009). Are there ethnic differences in positive body image among female British undergraduates? *European Psychologist, 14*(4), 288-296.
- Substance Abuse and Mental Health Services Administration. (2014). *Results from the 2013 National Survey on Drug Use and Health: Mental health findings*, NSDUH Series H-49, HHS Publication No. (SMA) 14-4887. Rockville, MD: Substance Abuse and Mental Health Services Administration.
- Talleyrand, R. M. (2006). Potential stressors contributing to eating disorder symptoms in African American women: Implications for mental health counselors. *Journal of Mental Health Counseling, 28*, 338-352.
- Thompson, J. K., Heinberg, L. J., Altabe, M., & Tantleff-Dunn, S. (1999). *Exacting Beauty: Theory, assessment, and treatment of body image disturbance*. Washington, DC: American Psychological Association.
- Thompson-Brenner, H., Franko, D. L., Thompson, D. R., Grilo, C. M., Boisseau, C. L., Roehrig, J. P., ..., & Wilson, G. T. (2013). Race/ethnicity, education, and treatment parameters as moderators and predictors of outcomes in binge eating disorder. *Journal of Consulting and Clinical Psychology, 81*(4), 710-721.

- Ting, J. Y., & Hwang, W. (2007). Eating disorders in Asian American women: Integrating multiculturalism and feminism. *Women and Therapy, 30*, 145-160.
- Tsai, G., & Gray, J. (2000). Eating Disorders Inventory among Asian American college women. *The Journal of Social Psychology, 140*(4), 527–529.
- Valentine, J. C., & McHugh, C. M. (2007). The effects of attrition on baseline comparability in randomized experiments in education: A meta-analysis. *Psychological Methods, 12*, 268-282.
- Virginia Commonwealth University. (2017). Facts and rankings. Retrieved from <https://www.vcu.edu/about/facts-and-rankings.html> on April 17, 2017.
- Virginia Commonwealth University's Center on Society and Health. (2016). Health equity in Richmond, Virginia. Retrieved from <http://societyhealth.vcu.edu/media/society-health/pdf/RVAHealthEquityFINAL.pdf> on April 17, 2017.
- Wade, T. D., Keski-Rahkonen A., & Hudson J. (2011). Epidemiology of eating disorders. In M. Tsuang and M. Tohen (Eds.), *Textbook in psychiatric epidemiology* (3rd ed.) (pp. 343-360). New York: Wiley.
- Wallace, B. C., & Constantine, M. G. (2005). Africentric cultural values, psychological help-seeking attitudes, and self-concealment in African American college students. *Journal of Black Psychology, 31*(4), 369-385.
- Waller, G., Schmidt, U., Treasure, J., Emanuelli, F., Alenya, J., Crockett, J., & Murray, K. (2009). Ethnic origins of patients attending specialist eating disorders services in a multiethnic urban catchment area in the United Kingdom. *International Journal of Eating Disorders, 42*(5), 459-463.
- Ward, E. C., Wilshire, J. C., Detry, M. A., & Brown, R. L. (2013). African American men and women's attitude towards mental illness, perceptions of stigma, and preferred coping behaviors. *Nursing Research, 62*(3), 185-194.
- Webb, J. B., Butler-Ajibade, P., & Robinson, S. A. (2014). Considering an affect regulation framework for examining the association between body dissatisfaction and positive body image in Black older adolescent females: Does body mass index matter? *Body Image, 11*, 426-437. doi: 10.1016/j.bodyim.2014.07.002
- Wildes, J., Emery, R., & Simons, A. (2001). The roles of ethnicity and culture in the development of eating disturbance and body dissatisfaction: A meta-analytic review. *Clinical Psychology Review, 21*, 521–551.
- Wonderlich, S. A., Joiner, T. E., Keel, P. K., Williamson, D. A., & Crosby, R. D. (2007). Eating disorder diagnoses: Empirical approaches to classification. *American Psychologist, 62*(3), 167-180.

- Yager, J., & Andersen, K. (2005). Clinical practice: Anorexia nervosa. *New England Journal of Medicine*, 353(14), 1481-1488.
- Yates, A., Edman, J., & Aruguete, M. (2004). Ethnic differences in BMI and body/self-dissatisfaction among Whites, Asian subgroups, Pacific Islanders, and African-Americans. *Journal of Adolescent Health*, 34(4), 300-307.
- Yokoyama, K. (2007). The double binds of our bodies: Multiculturally-informed feminist therapy considerations for body image and eating disorders among Asian American women. *Women & Therapy*, 30(3-4), 177-192.

## **Appendix A**

### **List of Activities from the Body Project (2-Session) (Becker et al., 2006, 2008)**

#### SESSION 1

- I. Introduction
- II. Voluntary Commitment and Overview
- III. Definition and Origin of the Thin ideal
- IV. Costs Associated with Pursuing the Thin ideal
- V. Engage participants in the Verbal Challenge
- VI. Explore Fat Talk
- VII. Behavioral Challenge
- VIII. Home Exercises

#### SESSION 2

- I. Reinforcing voluntary commitment
- II. Letter Recording/Debriefing
- III. Mirror Exercise Debriefing
- IV. Behavioral Challenge Debriefing
- V. Role Play: Discourage Pursuit of the Thin-ideal
- VI. Body Activism
- VII. Future Pressures to be Thin
- VIII. Quick Comebacks
- IX. Discussion of Benefits of the Group
- X. Self-Affirmation Exercise
- XI. Home Exercises
- XII Closure



## Appendix B

### Email Script for Initial Participant Contact

#### **(For Focus Group Participants)**

Hello **(Insert Potential Participant's Name)**,

My name is Sarah Javier and I am a doctoral student in the Psychology Department at Virginia Commonwealth University. You are receiving this email because you expressed interest about participating in my focus group.

If you report some body image concerns and you choose to participate, you will be scheduled to be in a group with 5 or 6 other women. During this group session, you will be asked about cultural issues surrounding body image and eating behaviors.

Participation in this study will take approximately an hour of your time. In appreciation of your time commitment, you will receive \$20.00 in cash immediately following the focus group session.

This study has been approved by the Institutional Review Board at Virginia Commonwealth University. If you are still interested in participating, please contact me at (804)828-6261 and leave a message if I am not available. Alternately, you may email me at javiersj@vcu.edu and I will schedule you for a session.

Thank you so much for your interest and I look forward to hearing from you soon!

Best,

Sarah Javier, M.S.

Health Psychology Doctoral Student

Department of Psychology

Virginia Commonwealth University

---

#### **(For Intervention Participants)**

Hello **(Insert Potential Participant's Name)**,

My name is Sarah Javier and I am a doctoral student in the Psychology Department at Virginia Commonwealth University. You are receiving this email because you expressed interest about participating in the Body Project.

If you report some body image concerns and you choose to participate, you will may be asked to attend a 30-minute pre-intervention session. You will then participate in two 2.5-hour in-person sessions with a group of 9-11 women, and a 30-minute follow-up session after 2 months. During the course of these sessions, you will participate in activities such as role playing games about thin-ideal internalization, discussion around body image and eating behaviors, sociocultural

expectations of beauty, and individual writing assignments. After 3-months, you will be contacted by one of the researchers to come in for a brief 30-minute session. During this follow-up session, you will be asked if you have used any of the lessons you learned during the Body Project over the past three months.

You will be asked to complete a battery of self-report questionnaires at the first intervention session, after the second intervention session, and at 3-month follow-up. These questionnaires will ask you about your demographic information including ethnicity, weight, and height, body image, eating behaviors, attitudes towards treatment seeking, and weight and shape attitudes. These questionnaires should take approximately 20-30 minutes to complete.

Participation in this study will take approximately two 2.5-hour sessions and a 30-minute follow-up session after 3 months. Some participants will be asked to attend a 30-minute pre-intervention session. You will be compensated up to \$60.00 if you participate in this study.

This study has been approved by the Institutional Review Board at Virginia Commonwealth University. If you are still interested in participating, please contact me at (804)828-6261 and leave a message if I am not available. Alternately, you may email me at [javiersj@vcu.edu](mailto:javiersj@vcu.edu) and I will schedule you for a session.

Thank you so much for your interest and I look forward to hearing from you soon!

Best,

Sarah Javier, M.S.

Health Psychology Doctoral Student

Department of Psychology

Virginia Commonwealth University

## **Appendix C**

### **Manualized Pre-Treatments**

## ASIAN AMERICAN MANUALIZED PRE-TREATMENT

This manual is meant to be used as an accompaniment to the Body Project. This pre-treatment should take approximately 30 minutes, from beginning to end. In addition, the individual administering this pre-treatment should meet the following additional criteria:

- (1) Identifies as an ethnic minority woman *or* is familiar with beauty and appearance-challenges that are faced by Asian American women
- (2) Has been trained on the Body Project protocol

### Overview of Pre-Treatment

- A. Introduction (2 minutes)
- B. Voluntary Commitment (2 minutes)
- C. Reading of Stereotypes About Asian American Women (2 minutes)
- D. Refuting Stereotypes About Asian Women Activity (5 minutes)
- E. Reading of Hypothetical Woman's Family Criticism (2 minutes)
- F. Brief Discussion About Familial Expectations of Appearance (5 minutes)
- G. Overview of Facts About Mental Illness (2 minutes)
- H. Brainstorm of Ways to Combat Cultural Stigmatization Against MI (5 minutes)
- I. Closure (2 minutes)

### Procedure

#### A. INTRODUCTION (2 MINUTES)

Hello [Insert Participant's Name Here], and thank you for meeting with me briefly today before beginning the Body Project class. My name is [Facilitator Name], and today we will be chatting briefly about Asian American women and appearance. I will be referring to this script throughout this brief session to ensure that everything is covered. Before we begin, can you tell me a little bit more about yourself?

Solicit some personal information from the participant. This may include asking year in school (if they are still in school), personal hobbies, or job/occupation. The facilitator can feel free to share personal information about herself as well. This introduction is meant to quickly build a rapport between the participant and the facilitator.

#### B. VOLUNTARY COMMITMENT (2 MINUTES)

The purpose of this session is to discuss Asian American beauty ideals, including stereotypes about Asian American women, family expectations, and cultural stigma around mental illness, before starting the Body Project class. It is important to note that participation is voluntary. You may get the most out of this session if you actively participate. Are you willing to actively participate in this session?

### **C. READING OF STEREOTYPES ABOUT ASIAN WOMEN (2 MINUTES)**

First, I'm going to read some statements about Asian women. These statements were obtained from on-line forums, Facebook comments, popular magazine articles, books, and celebrity Twitter accounts. Some of these statements may be offensive, so please let me know at any time if you feel uncomfortable and wish for me to stop reading them.

It is important that the facilitator verifies the ethnic identification of the participant at the outset and reads the stereotypes that best fit with this identification:

East Asian (i.e., Japanese, Chinese, Korean, Taiwanese, etc.)

*From a Reddit thread about Asian American beauty:* "Ultimately, I don't think many Asians who strive to achieve the strict East Asian beauty standard are trying to look white. They're trying to look pretty, according to their culture's standards of what that is--they're trying to look like pretty Koreans or pretty Chinese or whatever."

*From writer Jessica Hagedorn, who wrote "Asian Women in Film: No Joy, No Luck":* "Good" Asian women are portrayed as being "childlike, submissive, silent, and eager for sex."

*Sheridan Prasso, author of "The Asian Mystique" notes often, Asian women in Hollywood are portrayed as sexy Geishas, femme fatales and Kung Fu fighting seductresses in place of what she calls "ethnically neutral roles".*

Southeast Asian (i.e., Filipina, Vietnamese, Thai, etc.)

*From a listicle titled, "You May Be Married to a Filipina If":* "...You are pretty proud of yourself because you think that you snagged up for yourself some unique, rare tropical goddess type until you go to the Philippines and can't tell her apart from anyone else in the whole country."

*From Urban Dictionary:* "Also, if you can see, all Vietnamese women have their eyebrows done the same as their friends. If you look afar at a group of Viet girls, you could've sworn they were sisters."

*From a man who made a blog about dating Thai women:* "We're immediately drawn to their petite, slender figures, their long, shiny dark hair and their oh so soft delicate feminine features. The clichéd golden tanned skin and large almond eyes get us every time. And the non-confrontational attitude is a breath of fresh air

compared to the combative, increasingly masculine-like women we've slowly become used to in the West.”

South Asian (i.e., Indian/Pakistani/Bangladeshi, etc.):

*Lakshmi (1999), quoting an Indian feminist Brinda Karat in an article says, “In India, the sexuality of a woman is always linked to ‘marriage and morals’.” According to her, this “is in keeping with the global image of a woman, wherein besides being independent and expressive about her feelings, she is also bound by the ‘family values’ framework.”*

*From the Single Dude Travel Blog: “Unfortunately the Bollywood beautiful women myth is completely false. In fact, nothing could be farther from the truth. I was in India for two weeks and I did not see a single, truly hot Indian chick the entire time I was there.”*

*From a VICE article: “One of Maria Qamar's older pieces shows a woman trapped inside a bubblegum pink tube of Fair and Lovely skin lightening cream. The image is a pop art parody of what many South Asian girls experience—being told to avoid the sun and smother yourself in bleaching products. It's a problem rooted in anti-blackness. After all, as so many girls are told: no one will marry you if you're dark.”*

The facilitator should gauge the response of the participant while they are reading these stereotypes.

#### **D. REFUTING STEREOTYPES ABOUT ASIAN WOMEN ACTIVITY (5 MINUTES)**

How did hearing these stereotypes make you feel?

Have you ever experienced or heard any of these stereotypes? [If Yes] How did that experience make you feel?

Encourage the participant to focus on stereotypes about appearance, rather than more general appearance. Ask for more details if necessary.

Do you think that these stereotypes can be harmful to women? How so?

Let's brainstorm ideas to combat these types of stereotypes about women. What can be done in media to combat these stereotypes? What can a woman do at the individual level to combat these negative stereotypes?

The facilitator should go through and list examples of what women can do at each level to combat negative stereotypes about Asian American women. Some examples are listed below.

Media: Cast women in TV shows that are contrary to Asian American stereotypes, more activism on Facebook/Reddit/Twitter that constructively calls out individuals that engage in stereotyping Asian females

Individual level: Actively negate the opinion of individuals who endorse these stereotypes, correct friends and family who may endorse these stereotypes.

#### **E. READING OF HYPOTHETICAL WOMAN’S FAMILY CRITICISM (2 MINUTES)**

Now, I’m going to read a short passage from a student with whom I have discussed beauty stereotypes about Asian American women.

“In our culture, there are a lot of gatherings. So when you meet other parents, like other aunts or uncles, they definitely judge based on what you look like. For example, how well you fit into that dress that you’re wearing, or what you look like compared to their son or daughter. In general, there’s a lot of comparison going on in our culture. My own relatives are a lot more open about criticizing appearance than my friends’ relatives. If you put on a little weight, they’ll comment on it. They’ll also compare my cousins and I to earlier generations back in their own country, saying that people my age are skinny over there while we’re so fat over here.

When I came home for Thanksgiving, the first thing my relatives said when they saw me was, “Oh you look different.” They were directing that comment towards my weight. I’m like, that’s the first you’re gonna say? Okay! They didn’t even say hi. They just commented that I was skinnier, and basically said, “Keep doing that.”

#### **F. BRIEF DISCUSSION ABOUT FAMILIAL EXPECTATIONS OF APPEARANCE (5 MINUTES)**

What was your initial impression of the passage? Have you ever had an experience that was similar? [If Yes] How did that experience make you feel? [If No] How would that experience make you feel?

The facilitator should feel free to provide a personal example if the participant is hesitant to respond or if they have not experienced something similar.

If something like this were to happen to you, what are some ways in which you can politely negate the family friend or relative?

### **G. OVERVIEW OF FACTS ABOUT MENTAL ILLNESS (2 MINUTES)**

Some research has found that body image problems and pressure from media and family can be associated with depression and mental health problems among Asian and Asian American women. I'm going to read a short quote from an Asian American woman about mental health:

“Um my parents don't believe in mental disorders at all, for some reason. Um, I guess it's not like a prevalent thing there [in India], and there's never anything, like, they never, like, got medication for depression or anxiety, and I'm diagnosed with depression and anxiety, and I had an eating disorder at some point and it was the most difficult thing to deal with, because they're like, “You don't need help, you just need to eat more.”

### **H. BRAINSTORM OF WAYS TO COMBAT CULTURAL STIGMATIZATION AGAINST MENTAL ILLNESS (5 MINUTES)**

What do you think about this statement? Have you had a similar or dissimilar experience?

Participant responds.

What are some ways in which Asian American women can combat stigma against mental illness?

### **I. CLOSURE (2 MINUTES)**

That wraps up our brief session. Do you have any questions?

Answer questions.

Thank you so much, and I will see you at the first session of the Body Project class!



## AFRICAN AMERICAN MANUALIZED PRE-TREATMENT

This manual is meant to be used as an accompaniment to the Body Project. This pre-treatment should take approximately 30 minutes, from beginning to end. In addition, the individual administering this pre-treatment should meet the following additional criteria:

- (3) Identifies as an ethnic minority woman *or* is familiar with beauty and appearance-challenges that are faced by African American women
- (4) Has been trained on the Body Project protocol

### Overview of Pre-Treatment

- J. Introduction (2 minutes)
- K. Voluntary Commitment (2 minutes)
- L. Reading of Stereotypes About African American Women (2 minutes)
- M. Refuting Stereotypes About African American Women Activity (5 minutes)
- N. Reading of Hypothetical Woman's Family Criticism (2 minutes)
- O. Brief Discussion About Familial Expectations of Appearance (5 minutes)
- P. Brainstorm of Ways to Combat Cultural Stigmatization Against MI (5 minutes)
- Q. Closure (2 minutes)

### Procedure

#### B. INTRODUCTION (2 MINUTES)

Hello [Insert Participant's Name Here], and thank you for meeting with me briefly today before beginning the Body Project class. My name is [Facilitator Name], and today we will be chatting briefly about African American women and appearance. I will be referring to this script throughout this brief session to ensure that everything is covered. Before we begin, can you tell me a little bit more about yourself?

Solicit some personal information from the participant. This may include asking year in school (if they are still in school), personal hobbies, or job/occupation. The facilitator can feel free to share personal information about herself as well. This introduction is meant to quickly build a rapport between the participant and the facilitator.

#### B. VOLUNTARY COMMITMENT (2 MINUTES)

The purpose of this session is to discuss African American beauty ideals, including stereotypes about African American women, family expectations, and cultural stigma around mental illness, before starting the Body Project class. It is important to note that participation is voluntary. You may get the most out of this session if you actively participate. Are you willing to actively participate in this session?

### **C. READING OF STEREOTYPES ABOUT BLACK WOMEN (2 MINUTES)**

First, I'm going to read some statements about Black women. These statements were obtained from popular media television shows, popular magazine articles, and academic books. Some of these statements may be offensive, so please let me know at any time if you feel uncomfortable and wish for me to stop reading them.

It is important that the facilitator verifies the ethnic identification of the participant at the outset and reads the stereotypes that best fit with this identification:

*From "Decoded" with Franchesca Ramsey: "Meet "The Jezebel." She's sexual. She's aggressive. She just wants it all the time. And while stereotype has persisted throughout TV and film history, today you can usually find the jezebel archetype in music videos and all over reality TV. It also pops up in the policing of black women's bodies and sexuality. Just ask Rihanna, or Nikki, or Beyoncé."*

*From "Mammy, Jezebel, Sapphire, and Their Homegirls" by Dr. Carolyn West: "The Mammy image, which originated in the South after slavery, is one of the most pervasive images of Black women. Christian (1980) described her as, 'black in color as well as race and fat with enormous breasts that are full enough to nourish all the children in the world; her head is perpetually covered with her trademark kerchief to hide the kinky hair that marks her as ugly.'"*

*From the Atlanta Black Star: "Past studies have outlined the risks faced by Black girls, who are over-disciplined and six times more likely to be suspended than white girls due to racial stereotyping and gender-based punishments. After all, Black girls are described as untrustworthy, "ignorant," "ghetto," "loud" and "rowdy." "*

The facilitator should gauge the response of the participant while they are reading these stereotypes.

### **D. REFUTING STEREOTYPES ABOUT BLACK WOMEN ACTIVITY (5 MINUTES)**

How did hearing these stereotypes make you feel?

Have you ever experienced or heard any of these stereotypes? [If Yes] How did that experience make you feel?

Encourage the participant to focus on stereotypes about appearance, rather than more general appearance. Ask for more details if necessary.

Do you think that these stereotypes can be harmful to women? How so?  
Let's brainstorm ideas to combat these types of stereotypes about women. What can be done in media to combat these stereotypes? What can a woman do at the individual level to combat these negative stereotypes?

The facilitator should go through and list examples of what women can do at each level to combat negative stereotypes about African American women. Some examples are listed below.

Media: Cast women in TV shows that are contrary to African American stereotypes, more activism on Facebook/Reddit/Twitter that constructively calls out individuals that engage in stereotyping Black females

Individual level: Actively negate the opinion of individuals who endorse these stereotypes, correct friends and family who may endorse these stereotypes.

#### **E. READING OF HYPOTHETICAL WOMAN'S IDEAL DISCREPANCY (2 MINUTES)**

Now, I'm going to read a short passage from a student with whom I have discussed beauty stereotypes about African American women.

"Here in America, I think that African American women, if they're seen as curvy, they're more beautiful than someone who has, who's like a size 2, maybe. But then, as, once an African American woman reaches a certain weight or something she's considered "obese" and she needs to do this and that to maintain this type of body image, so I think that that also plays a role."

#### **F. BRIEF DISCUSSION ABOUT EXPECTATIONS OF APPEARANCE FOR BLACK WOMEN (5 MINUTES)**

What was your initial impression of the passage? Have you ever had an experience that was similar? [If Yes] How did that experience make you feel? [If No] How would that experience make you feel?

The facilitator should feel free to provide a personal example if the participant is hesitant to respond or if they have not experienced something similar.

What are some ways in which you can combat what may be an unrealistic ideal like this?

### **G. BRAINSTORM OF WAYS TO COMBAT CULTURAL STIGMATIZATION AGAINST MENTAL ILLNESS (5 MINUTES)**

Some research has found that body image problems and pressure from media and family can be associated with depression and mental health problems among African American women. However, there may be a misconception that African Americans are less prone to mental health problems or should not seek treatment for them.

I spoke with one young African American woman that stated, “Growing up in my household, my mom’s like, if you got a problem, you don’t take it, your problem outside of the household like, what goes on in this house stays in this house. And I guess unlike with White people, if you have a problem, you don’t really take it to somebody else, you discuss it with your family or you go to church for it, you don’t go outside and tell everybody about the problem.”

What do you think about this statement? Have you had a similar or dissimilar experience?

Participant responds.

What are some ways in which African American women can combat stigma against mental illness?

Have discussions around mental illness with close family and friends, correct stereotypes about mentally ill individuals in the media, correct stereotypes that African Americans cannot get mental illness.

### **H. CLOSURE (2 MINUTES)**

That wraps up our brief session. Do you have any questions?

Answer questions.

Thank you so much, and I will see you at the first session of the Body Project class on [DATE] and [TIME].

## Vita

Sarah Jane Javier was born on September 17, 1988 in Pensacola, Florida. She graduated from the International Baccalaureate program at Pensacola High School in 2007. She received a Bachelor of Science in Psychology from Tulane University, New Orleans, Louisiana in 2010. In 2013, she received a Master of Science in Psychology from Virginia Commonwealth University.