SELF-DETERMINED NON-CONFORMITY, FEMININE GENDER ROLES, AND FEMINIST IDEALS AS RESISTANCE FACTORS AGAINST INTERNALIZATION OF THE THIN IDEAL BODY AND BODY DISSATISFACTION

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SELF-DETERMINED NON-CONFORMITY, FEMININE GENDER ROLES, AND FEMINIST IDEALS AS RESISTANCE FACTORS AGAINST INTERNALIZATION OF THE THIN IDEAL BODY AND BODY DISSATISFACTION

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ABSTRACT

The relationship between body dissatisfaction and the development of disordered eating has been widely studied in psychology (e.g., Steiner-Adair, 1986; Streigel-Moore, Silberstein, & Rodin, 1986). This research has documented the apparent link between sociocultural pressures (from media and interpersonal relationships) and eating pathology. Stice (1994) developed the Sociocultural Model of Bulimia (SMB), positing that this relationship would be mediated by internalization of the thin ideal body presented in U.S. culture, and body dissatisfaction. Stice and other researchers hypothesized that some factors may interrupt this link at different points within the SMB. However, this literature has, to a large extent, neglected to examine potential resistance factors that women can actively learn and use to resist internalization and/or body dissatisfaction (Twamley & Davis, 1999). The studies that did address the role of active resistance factors within the SMB had two major problems: defining and measuring these resistance factors.

The present study used the SMB as a foundation to investigate three potential resistance factors that may moderate relationships within the SMB: self-determined non-conformity, rejection of traditional feminine gender roles, and endorsement of feminist ideals. This study was designed to improve upon the work of previous studies by using more appropriate measures of these factors and clarifying their potential moderating roles within the SMB. Two hundred fifty-seven women from a wide range of ages and
backgrounds provided questionnaire data and demographic information. Hierarchical multiple regression analyses were used to establish whether or not these three factors moderated the relationship between sociocultural pressures and internalization and/or the relationship between internalization and body dissatisfaction within the SMB, and to test gender roles as a mediator of the relationship between sociocultural pressures and internalization. Results indicated that self-determined non-conformity, rejection of tradition feminine gender roles, and endorsement of feminist ideals do not act as moderators in the relationship between sociocultural pressures and internalization, or in the relationship between internalization and body dissatisfaction. Gender roles were found to partially mediate the relationship between sociocultural pressures and internalization. Implications, limitations, and directions for future research are discussed.
DEDICATION

This dissertation is dedicated to the memory my grandparents, Irene and Fredrick Kowalski. They didn’t get very far in school, but instilled the importance of education in their children. They would have sat up front at my graduation.
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CHAPTER I
INTRODUCTION

The Problem

With the addition of bulimia nervosa and anorexia nervosa to the 3rd edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III; American Psychiatric Association) in 1980, disordered eating became part of the realm of clinical treatment in psychology. Disordered eating treatment has become a specialization within counseling and clinical psychology over the past two decades for the relatively small number of individuals who develop clinical eating disorders. In addition, a much larger number of women internalize a thin body ideal (i.e., they aspire to a “perfect” female body that is very thin and often presented as the ideal in U.S. culture) and experience body dissatisfaction (Smolak, 1996; Spitzer, Henderson, & Zivian, 1999). Given the overwhelming frequency with which internalization and body dissatisfaction are reported by girls and women, it is essential that women be better prepared to face the sociocultural pressures they experience on a daily basis, and for clinicians to be able to assist women in doing so. Previous research has focused on finding factors that may be advantageous for women to possess in order to resist internalizing a thin ideal body and developing body dissatisfaction and subsequent disordered eating symptoms. However, this body of research has focused heavily on protective factors that are relatively stable and immutable.
(e.g., demographic factors such as race/ethnicity). Researchers have yet to uncover factors or strategies that can be readily learned and actively employed to resist internalizing a thin body ideal and developing body dissatisfaction.

Thus, the goal of the current project is to take a theory-driven approach to investigating three possible resistance factors that may interrupt the process and development of thin-ideal internalization and/or body dissatisfaction. These are: self-determined non-conformity, rejection of traditional feminine gender roles, and endorsement of feminist ideals. The following overview of the relevant literature is organized into these sections: (1) an overview of body dissatisfaction and disordered eating, (2) a review of theoretical perspectives on disordered eating, including the Sociocultural Model of Bulimia (SMB, Stice, 1994), and the research evidence on the SMB, (3) a summary of the research on the proposed resistance factors, (4) a statement of general purpose of the study, (5) the research questions and hypotheses, (6) the significance of the study, and (7) a summary.

Body Dissatisfaction and Disordered Eating

It has been more than twenty-five years since body dissatisfaction and disordered eating symptomology first became a major focus of the psychology of women. This new awareness was spurred by the emergence of Bulimia Nervosa and Anorexia Nervosa as new diagnoses in the DMS-III (American Psychiatric Association, 3rd edition, 1980). Initially, body dissatisfaction and disordered eating were seen as problems that exclusively affected privileged White women, but they were later recognized as impacting girls and women of all backgrounds in the United States (McLaren & Kuh, 2004; Rubin, Fitts, & Becker, 2003). Recent estimates indicate that approximately 80%
of women now experience some degree of body dissatisfaction (Smolak, 1996; Spitzer et al., 1999), although it is difficult to determine what percentage of body-dissatisfied women go on to develop disordered eating behaviors. However, there is evidence that disordered eating has increased in recent decades and that body dissatisfaction and disordered eating are occurring at much younger ages than in the past (Murnen, Smolak, Mills, & Good, 2003).

A review of early disordered eating research (pre-1986) revealed possible influences and causes of body dissatisfaction and disordered eating. The vast majority of these factors were related to the impact of social situations and exchanges, and media exposure (Steiner-Adair, 1986; Streigel-Moore et al., 1986). Steiner-Adair (1986) and Streigel-Moore et al. (1986) concluded that women were being inundated with more pressure from interpersonal relationships (e.g., family relationships, peer relationships, etc.) and media sources (television, advertising, etc.) than in the past, and that these sociocultural pressures were causing them to internalize a thin ideal body, leading to negative psychological consequences (e.g., depression, disordered eating). The empirical literature also gave support to the idea that women were becoming increasingly sexualized and objectified and were increasingly vulnerable to sociocultural pressures (Streigel-Moore et al., 1986). These findings led many subsequent researchers to examine multiple dimensions of body dissatisfaction and their relation to disordered eating, resulting in the development of theories about the origins and preceding factors of eating disorders.
Theoretical Perspectives

In this section, the theoretical perspectives that captured the problem of disordered eating and led to the development of theories of disordered eating.

*Early Disordered Eating Literature and Sociocultural Theory*

A review of early disordered eating literature led to the development of theoretical models describing the causes and antecedents of disordered eating. The most influential of these, Sociocultural Theory (Steiner-Adair, 1986; Streigel-Moore et al., 1986), linked the increases in body dissatisfaction and disordered eating with increases in sociocultural pressures and cultural trends emphasizing the importance of meeting the thin ideal for women. This work demonstrated that the thin ideal was becoming increasingly thinner and had become more prevalent in certain populations (e.g., college women). The general ideas of Sociocultural Theory were expanded by several more specific and comprehensive explanatory models (Heatherton & Polivy, 1992; McCarthy, 1990; Stice, 1994). The most influential of these is the Sociocultural Model of Bulimia (SMB; Stice, 1994).

*The Sociocultural Model of Bulimia*

Stice (1994) drew from early models of Sociocultural Theory (i.e., McCarthy, 1990; Heatherton & Polivy, 1992) and the early disordered eating literature (e.g., Steiner-Adair, 1986; Streigel-Moore et al., 1986) to develop the Sociocultural Model of Bulimia (SMB). The SMB was built upon the relationship between sociocultural factors and disordered eating proposed by the Sociocultural Theory, offering a more comprehensive explanation of how this relationship between the two factors may occur. The SMB is posited as a mediational model, wherein the relationship between sociocultural pressures
and the development of bulimia nervosa is partially mediated by thin ideal internalization, body dissatisfaction, restrained eating, and negative affect (see Figure 1).

![Sociocultural Model of Bulimia](image)

**Figure 1: Stice’s (1994) Sociocultural Model of Bulimia**

The SMB further assumes that the idea of the thin-ideal body is present in Western culture, and that there are pressures to meet the thin ideal because of the social advantages that may be gained through meeting this ideal (e.g., more attractive offers of employment and dating partners; Stice, 1994). These sociocultural pressures (from media sources and interpersonal relationships) may lead women to internalize the thin ideal, although the thin-ideal body is clearly not achievable for the great majority of women. When women are unable to meet the thin ideal, it may cause them to become dissatisfied with their bodies, leading to weight control strategies (e.g., restrained eating) and negative emotions (e.g., sadness, frustration, worthlessness). Purging behavior, the hallmark of bulimia, may result as an attempt to relieve distressing emotions and control weight. Thus, the relationship between sociocultural pressures and bulimic behaviors is indirect, mediated by internalization of the thin ideal, body dissatisfaction, and restrained eating and negative affect.

Although the original SMB presented a potentially useful theoretical framework for understanding the relationship between sociocultural pressures and disordered eating,
Stice (1994) recognized that the model did not adequately account for the many women who were exposed to sociocultural pressures but did not develop body dissatisfaction and/or symptoms of disordered eating. He additionally proposed the existence of six possible protective factors that might moderate the relationships between some of the key constructs within the SMB. Specifically, Stice posited that the relationship between sociocultural pressures and internalization may be moderated by individual difference variables such as self-esteem and identity confusion. Stice also hypothesized that the relationship between internalization and body dissatisfaction may be moderated by individual body weight. Additionally, he posited that the relationship between restrained eating and bulimia may be moderated by impulsivity and the modeling of restrained eating by sociocultural influences (e.g., family, peers, media). Finally, Stice predicted that the relationship between negative affect and bulimia may be moderated by the use of certain coping skills (e.g., tendency to seek social support and use of stress-reduction skills).

**Empirical Support for the SMB**

The SMB garnered a great deal of attention and was tested extensively by Stice and his colleagues following its inception. Overall, there appears to be support for the structure of the SMB as posited by Stice (1994). Stice, Schupak-Neuberg, Shaw, and Stein (1994) initially explored the indirect relationship between media exposure (part of sociocultural pressures) and disordered eating, which Stice proposed would be mediated by internalization and body dissatisfaction. Results found support for the hypothesized indirect relationship between media exposure and disordered eating; internalization and body dissatisfaction were partial mediators of this relationship (Stice et al., 1994). A
follow-up study conducted by the same set of authors further demonstrated that the amount of time spent consuming media was positively and significantly related to the development of disordered eating symptoms. A longitudinal study conducted by Stice (2001) further demonstrated that the SMB is temporal, in that each factor in the model happens in time and affects the next factor. The study also provided further support for the major posited relationships within the SMB, as well as its mediational nature. Together, these results indicated that body dissatisfaction may be an important factor in predicting future disordered eating and that a woman with higher levels of perceived sociocultural pressures and internalization might be at higher risk of dieting and developing symptoms of disordered eating.

*Stice’s Proposed Moderators*

Three of Stice’s (1994) proposed moderators of the SMB have also been explored in the empirical literature: self-esteem, initial weight/body mass index (BMI; CDC, 2006), and social support. To date, the evidence bearing on their posited moderating effects has been mixed and limited. Fingeret and Gleaves (2004) tested self-esteem as a potential moderator of the relationship between sociocultural pressures and internalization and found that self-esteem was not a moderator of that relationship, but that it may have an indirect effect on body dissatisfaction via internalization. Twamley and Davis (1999) examined self-esteem as a moderator of the relationship between internalization and body dissatisfaction and the relationship between body dissatisfaction and bulimic symptomology. Their results indicated that self-esteem was a moderator of the relationship between body dissatisfaction and bulimic symptomology, but *not* a moderator of the relationship between internalization and body dissatisfaction.
Twamley and Davis (1999) also examined body mass index and body fat percentage as moderators of the relationship between internalization and body dissatisfaction. Neither proposed moderator was found to reduce the development of body dissatisfaction, instead suggesting that greater satisfaction with one’s perceived (rather than actual) weight and shape was a more important protective factor than were actual measurements of body mass and fat percentages. Stice, Spangler, and Agras (2001) examined social support as a potential moderating factor of the relationship between internalization and body dissatisfaction and found that lack of social support made participants more vulnerable to increased body dissatisfaction, dieting, and bulimic symptomology.

**Summary**

Overall, the extant evidence supports the SMB as a framework for understanding the development of body dissatisfaction and disordered eating. There is support for the major paths of the model as described by Stice (1994), as well as for the mediation of the model by internalization and body dissatisfaction. Although generalizability is limited at this time, the model has been shown to be appropriate for the sample of interest (women aged 18 years and older) for the present study. Stice’s proposed moderators of the SMB (e.g., BMI, and social support) have only been examined in a limited way at this time, and the extant literature has yielded limited support for social support as a possible moderating factor (Stice et al., 2001). There has been some limited evidence for self-esteem as a moderator of the relationship between body dissatisfaction and eating pathology, but not within the paths of interest in this study (Fingeret & Gleaves, 2004; Twamley & Davis, 1999). Thus, it seems important to extend the search for potential
moderating factors of key relationships within the SMB, particularly the links between sociocultural pressures and internalization, and internalization and body dissatisfaction.

Extension of the SMB

In the following section, the factors that may extend the SMB further and create a more comprehensive model of disordered eating, such as those proposed by Stice (1994), will be discussed.

Proposing New Moderating Factors

Twamley and Davis (1999) agreed with Stice’s (1994) proposition that moderating factors must operate within the framework of the SMB, as most women exposed to sociocultural pressures do not develop disordered eating symptoms. In an effort to extend Stice’s theorizing, Twamley and Davis sought to identify additional factors that might decrease the influences of sociocultural pressures and internalization within the framework of the SMB. They gathered from the assumptions of Stice’s (1994) original SMB that women could be protected by individual and environmental factors that help them to resist internalization of the thin ideal. Specifically, Twamley and Davis predicted that women who tend to disregard social norms might be protected from the potential negative effects of sociocultural pressures (i.e., internalization, body dissatisfaction, and disordered eating pathology). They argued that women who are generally non-conforming would likely hold non-conformist beliefs in others areas, such as endorsing feminist beliefs and rejecting traditional feminine gender roles. Thus, they hypothesized that these three factors would moderate the relationship between sociocultural pressures and internalization (Twamley & Davis, 1999).
Interestingly, Twamley and Davis (1999) did not choose to examine the effects of these three factors on the relationship between internalization and body dissatisfaction. There is evidence indicating that girls may internalize the thin ideal and develop body dissatisfaction as early as the age of 6 years (Murnen et al., 2003). It makes little sense to only examine how to reduce the internalization of sociocultural pressures when most have already internalized them in childhood. Additionally, the qualitative work of Rubin, Nemeroff, and Russo (2004) suggests that some women do develop strategies to try to reduce the effects of internalization (i.e., body dissatisfaction). This gives reason to expect that it may be useful to examine the aforementioned resistance factors as possible moderators of the relationship between internalization and body dissatisfaction. If internalization can occur in girls at such a young age, it may be very useful to understand how women can learn to reduce internalization and fight against the effects of internalization.

Twamley and Davis’ (1999) “new” moderators represented somewhat of a departure from those proposed by Stice (1994) and other scholars (e.g., Allan, Mayo, & Michel, 1993; Reboussin et al., 2000) in that they are potential protective factors that are learned via socialization and thus can be unlearned or otherwise modified. For example, through counseling or some other intervention, women could learn and choose to endorse these non-conformist beliefs and learn useful strategies for avoiding the consequences of internalizing the thin ideal. With this possibility comes the potential of developing new and effective interventions for women clients who experience body dissatisfaction and disordered eating. In the sections to follow, I will review the research evidence on each of the three protective factors posited by Twamley and Davis (1999).
Non-Conformity

A small number of studies have explored the hypothesized protective role of non-conformity in women’s experience of thin-ideal internalization and body dissatisfaction. For example, Twamley and Davis (1999) examined the effect of general non-conformity on the relationship between sociocultural pressures and internalization. Their results indicated that general non-conformity moderated the relationship between sociocultural pressures and internalization, such that having more non-conformist beliefs appeared to decrease internalization of the thin ideal. Although significant results were found, general non-conformity was assessed with a personality trait measure (i.e., Jackson Personality Inventory Conformity Subscale; Jackson, 1996), rather than a measure of learned beliefs or values. As it is generally accepted that personality is fairly stable and largely heritable (McCrae & Costa, 1996), the results of this study may not reflect the modifiable nature of non-conformist beliefs, leaving unanswered questions about the potential protective effect of non-conformist beliefs on the relationship between sociocultural pressures and internalization.

Pelletier, Dion, and Levesque (2004) took the concept of non-conformity a step further. They posited that it might be important to look not only at non-conformist behavior, but also at the motivation behind the behavior (i.e., self-initiated vs. reactive). Non-conformity that reflected true beliefs and values rather than a reaction to an outside source (such as wanting to appear “non-conformist” to fit into a group) was termed self-determined non-conformity. The authors hypothesized that women with higher levels of self-determined non-conformity would have lower levels of internalization and disordered eating. Their results, in a study of 300 Canadian female graduate and
undergraduate women (aged 17-50), indicated that self-determined non-conformity predicted perceived sociocultural pressures, internalization, and bulimic symptomology, suggesting that women with higher levels of self-determined non-conformity may be less vulnerable to internalization and the development of body dissatisfaction. Additional evidence has supported the idea that non-conformist attitudes can be taught, with a subsequent decrease in internalization and body dissatisfaction (Paquette & Raine, 2004; Stice, Mazotti, Weibel, & Agras, 2000).

Thus, non-conformity appears to be a promising potential resistance factor against internalization and body dissatisfaction. Some evidence suggests that it may be important to examine the motivation behind non-conformity, and that non-conformity may not be accurately assessed by personality trait measures (Pelletier et al., 2005). Given that only one study to date (Twamley & Davis, 1999), using a global, trait-like measure of non-conformity, has directly tested Twamley and Davis’ (1999) hypothesis that non-conformity moderates the relation between the experience of sociocultural pressures and the internalization of the thin ideal, future research on this relation is warranted.

Rejection of Traditional Feminine Gender Roles

Twamley and Davis (1999) also examined the potential role of feminine gender role adherence as a protective factor against internalization. Their results indicated that the degree to which women adhered to feminine gender roles did not moderate the relationship between sociocultural pressures and internalization. However, the measure of feminine gender roles used (Personality Attributes Questionnaire: PAQ, Spence, Helmreich, & Stapp, 1974) has been determined to be a measure of expressiveness, a
global personality trait, rather than conformity to feminine gender roles (Spence, 1983). As with non-conformity, for the purpose of this study, it is important to examine feminine gender role adherence as a potentially malleable factor that women may change as they learn and adopt new values and beliefs.

Accurately measuring adherence to gender roles has proven to be difficult over the past four decades. The empirical literature was plagued by the argument concerning whether gender roles reflect stable personality traits or are socially constructed, and questioned how adherence to gender roles should be best measured (Levant, 1996). To date, there is support for the notion that gender roles are socially constructed and modifiable entities that may be useful in predicting the negative consequences of body dissatisfaction and disordered eating (Snyder & Hasbrouk, 1996; Thomas & Pleck, 1995). Thus, future research should revisit the hypothesized protective (i.e., moderating) role of the rejection of the traditional feminine gender roles using a valid measure of gender roles as socially constructed and modifiable entities.

**Endorsing Feminist Ideals**

Twamley and Davis (1999) also examined whether and how endorsing feminist ideals moderated the relationship between sociocultural pressures and thin-ideal internalization. Results indicated that endorsement of feminist ideals did not act as a moderating factor, although the authors chose to use the Attitudes Toward Women Scale (AWS; Spence, Helmreich, & Stapp, 1973, an outdated measure that has been documented as a better assessment of sexist attitudes than feminist ideals (Attitudes Toward Women Scale; Spence, Helmreich, & Stapp, 1973; Swim & Cohen, 1997; Swim, Mallett, Russo-Devosa, & Stangor, 2005).
Fingeret and Gleaves (2004) used multiple measures of feminist ideals endorsement and found similar results, indicating that endorsement of feminism did not moderate the relationship between internalization and body dissatisfaction. However, the authors did not include among their multiple measures of feminist ideals a measure of active feminist behavior/advocacy (i.e., engaging in activities that seek to change the world’s view of feminist issues and women). There is some qualitative work (McKinley, 2004; Rubin et al., 2004) that suggests that women who are aware of and constantly negotiating messages about the thin ideal, and are actively working to change it, appear to experience a buffering effect against internalization and/or body dissatisfaction. Thus, one reason previous studies have not shown support for the hypothesized moderating role of feminist ideals in the SMB may be the use of feminist ideals measures that do not accurately capture active social advocacy against the thin ideal. Future studies of feminist ideals endorsement as a protective factor against thin-ideal internalization and/or body dissatisfaction should use measures that tap the full range of feminist identity, which would likely coincide with awareness and negotiation of (i.e., exploring how to handle) sociocultural pressures.

General Purpose of the Study

To date, the disordered eating literature has explored only a limited number of factors that might protect women from internalizing a thin-ideal body and developing body dissatisfaction. The protective factors that have been uncovered (e.g., demographic factors, self-esteem, body mass) offer limited utility with respect to preventing internalization and body dissatisfaction, in that these factors are relatively stable and cannot be easily modified by choice to buffer the impact of sociocultural pressures and
internalization on body image for women. Although there has been some support for self-esteem as a moderating factor, this has been found to only effect the relationship between body dissatisfaction and eating pathology (Fingeret & Gleaves, 2004; Twamley & Davis, 1999), which is outside the scope of this study. The SMB (Stice, 1994) appears to provide a meaningful framework for examining the process of internalization and development of body dissatisfaction. Thus, this study seeks to examine three factors that may potentially allow women to resist internalizing the thin ideal and developing body dissatisfaction and which can be learned and/or actively chosen. These factors (self-determined non-conformity, rejection of traditional feminine gender roles, and feminist ideals) have been termed resistance factors (Twamley & Davis, 1999). Although resistance factors have been minimally explored in the past (e.g., Fingeret & Gleaves, 2004; Twamley & Davis, 1999), previous research has been largely flawed. Major limitations include the questionable conceptualization and corresponding measurement of the resistance factors of interest: self-determined non-conformity, rejection of traditional gender roles, and endorsing feminist ideals.

Extending and improving upon previous studies, the present investigation is an attempt to augment the existing literature by building on earlier contributions from Sociocultural Theory (Steiner-Adair, 1986; Stice, 1994; Streigel-Moore et al., 1986). The current research examines the posited (Twamley & Davis, 1999) but largely unsubstantiated (e.g., Fingeret & Gleaves, 2004; Paquette & Raine, 2004; Paxton & Sculthorpe, 1991; Pelletier et al., 2004; Rubin et al., 2004; Stice et al., 1994; Stice et al., 2000) effects of self-determined non-conformity, rejection of traditional feminine gender roles, and endorsement of feminist ideals on the relationship between sociocultural
pressures and internalization of the thin ideal. It also considers effects of these resistance factors on the relationship between internalization of the thin ideal and body dissatisfaction. It is hypothesized that higher levels of self-determined non-conformity, greater rejection of traditional feminine gender roles, and greater endorsement of feminist ideals will moderate the relationship between sociocultural pressures and internalization by decreasing the effect of sociocultural pressures on internalization. Further, it is hypothesized that higher levels of self-determined non-conformity, greater rejection of traditional feminine gender roles, and greater endorsement of feminist ideals will moderate the relationship between internalization and body dissatisfaction by decreasing the effect of internalization on body dissatisfaction.

Significance of the Study

An enormous number of women experience high levels of internalization of the thin ideal and body dissatisfaction, yet experience symptoms of disordered eating at a non-clinical level (Smolak, 1996; Spitzer et al., 1999). At this level, the previously uncovered protective factors (e.g., demographic factors, body mass) can do little to help prevent the escalation of internalization and body dissatisfaction into disordered eating, as well as the negative consequences that may precede or coincide with the onset of disordered eating (e.g., depression, dieting, low self-esteem; Fredrickson & Roberts, 1997; McKinley, 1990). The proposed study presents a vehicle for further examination of several potential resistance factors as possible protective agents against women’s internalization of the thin-ideal and body dissatisfaction (i.e., self-determined non-conformist attitudes, feminist attitudes, rejection of traditional feminine gender roles). This study will allow for the expansion of knowledge regarding factors that may lead to
women’s development and maintenance of a healthier body image, and guide practitioners to develop more effective treatments for women who suffer from poor body image. In order to provide the groundwork for this study, the present review will consider a model that may be useful in exploring resistance factors. I will examine the literature on the development, structure, and mediating factors of the SMB (Stice, 1994). Then I will then review the factors that may interrupt women’s cycle of body dissatisfaction development, including self-determined non-conformity, feminist ideals, and rejection of feminine gender roles.

Summary

A great deal of research has explored the importance of body dissatisfaction and disordered eating within the sub-field of the psychology of women. Researchers have focused heavily on static factors that may protect women from internalizing the thin ideal and developing body dissatisfaction. However, researchers have yet to determine specific resistance factors that may help women to actively resist internalization of the thin ideal and the development of body dissatisfaction. The limited research that has examined potential resistance factors has yielded inconsistent findings and been marred by methodological limitations. Consequently, using the SMB as an empirically supported theoretical framework, the present study will attempt to improve on the extant literature’s methodological shortcomings and explore the effects of self-determined non-conformity, rejection of traditional feminine gender roles, and endorsing feminist ideals on the relationship between sociocultural pressures and internalization and the relationship between internalization and body dissatisfaction. In order to provide the groundwork for this study, I will examine the literature on the development, structure,
and mediating factors of the SMB (Stice, 1994). Then I will then review the factors that may interrupt women’s cycle of body dissatisfaction development, including self-determined non-conformity, feminist ideals, and rejection of feminine gender roles.
CHAPTER II
REVIEW OF THE LITERATURE

This study explores the roles of non-conformity, endorsement of feminist ideals, and traditional feminine gender role adherence in helping women to resist internalizing a thin body ideal and developing body dissatisfaction in women. The goal of this research was to use the framework of the SMB (Stice, 1994) to investigate these factors as moderating elements in the relation between sociocultural pressures and the internalization of the thin ideal, and in the relation between internalization of the thin ideal and body dissatisfaction. Therefore, the review of the literature is organized into the following sections: (1) an overview of the current state of body dissatisfaction literature regarding body dissatisfaction resistance, (2) an overview of the SMB and its accompanying research, (3) an overview of the research regarding moderating (i.e., resistance) factors of the SMB, and (4) conclusions and recommendations.

Body Dissatisfaction Resistance

Although the idea of a psychology of women was virtually unknown thirty years ago (Enns, 2000), women’s mental health is now a primary concern in the field of Counseling Psychology (Fassinger & Richie, 1997; Gilbert, 1992; Gilbert & Scher, 1999). Within this now broad field, Gilbert’s (1992) review of gender-related issues found that portrayals of women, particularly in the media, that concurred with cultural beauty ideals and stereotypes had become a mental health risk factor for women.
Cultural and media views of women as objects to be looked at, objectified, and sexualized by society appear to be an underlying factor in the development of a disproportionate amount of body image dissatisfaction among American women. This objectifying view may, in turn, increase the risk of the development of disordered eating behaviors among women, as well as many other negative mental health consequences (e.g., depression, anxiety; Fredrickson & Roberts, 1997).

In recent years, research on body image and body dissatisfaction has become commonplace in psychological literature (Davis, 1995; Gilbert, 1992). These studies of body image have most often examined the negative views that women take regarding their bodies. Specifically, they have explored the factors that are thought to cause body dissatisfaction in women with poor body images along with the possible consequences of body dissatisfaction (e.g., depression, disordered eating, extreme exercise). Although the topic of body dissatisfaction has been studied many times over, little attention has been paid to how some women manage to resist body dissatisfaction (Davis, 1995).

Researchers who concentrate their work in the area of body dissatisfaction continue to focus almost entirely on women with negative body images to the exclusion of all others (Rubin et al., 2003). Given that 80% of women in the United States are dissatisfied with their appearance (Smolak, 1996; Spitzer, Henderson, & Zivian, 1999), this focus is certainly appropriate and understandable. However, women who have managed to create and maintain a positive body image, at least in part, have only recently been examined in a limited way (McKinley, 2004; Rubin et al., 2003; Rubin et al., 2004). This virtually untapped population presents a possible avenue to explore the factors and strategies that allow some women to “opt out” of the system and resist body dissatisfaction.
Body dissatisfaction has been shown to be an important construct in the understanding of women’s mental health and well-being. By extension, it follows that other related constructs, such as factors that allow women to resist body dissatisfaction (i.e., non-conformity), will help researchers to develop a more comprehensive understanding of women’s mental health. The majority of the theoretical underpinnings and empirical findings in the body image and body dissatisfaction area have thus far only succeeded in uncovering a small number of protective factors (Rubin et al., 2004). These tend to be stable factors (e.g., personality, race/ethnicity; Falconer & Neville, 2000; Poran, 2002) that have been related to the likelihood of body dissatisfaction. The focus on these types of factors presents a potential limitation to developing a more comprehensive understanding of how women actively negotiate all the messages they receive on a daily basis about the ideal female body. These protective factors are often fixed traits that cannot be easily altered. They most often have to do with circumstance; that is, they are factors that are not under the control of the woman in question and just happen to be that way. For example, although heterosexual White women may have many privileges socially, they cannot access the degree of protection from body dissatisfaction reportedly available to women in close-knit Black communities or lesbian women (e.g., Allan, Mayo, & Michel, 1993; Reboussin et al., 2000).

Unfortunately, this knowledge does little to inform possible strategies or interventions to prevent or limit body dissatisfaction. It is not likely that those protective factors will be readily available to women in the near future. Thus, the focus on demographic and other types of fixed factors presents a potential limitation to developing a more comprehensive understanding of how women actively negotiate the messages they
receive on a daily basis about the ideal female body. Women cannot actively choose to use many of the currently identified protective factors.

A better understanding of the ways that women actively disengage from the thin ideal through refusal to conform to cultural norms, thereby discouraging the development of body dissatisfaction, will effectively empower women to actively engage in making choices about how they experience their bodies and their lives. Rubin et al. (2004) hypothesized that when women develop a critical awareness of the presence and harmfulness of the cultural thin body ideal, they can actively choose to engage in strategies that may counteract the messages they receive regarding the thin ideal. These strategies, in turn, may help to reduce body dissatisfaction.

Consistent with Rubin and colleagues’ (2004) hypothesis, feminist scholars have called for further investigation of the self-protective factors (i.e., resistance factors) that women may learn or acquire that may enable them to better resist societal pressures to adhere to the thin ideal of White, heterosexual majority culture. For example, Davis (1995) noted that when researchers write about objectification of the female body, they fail to take into account the agency of the individual, assuming that women blindly adopt societal norms about body image. As noted by Davis (1995), “feminist researchers have important roles to play in investigating women’s strategies for negotiating – resisting, subverting, or otherwise navigating – body image concerns within the constraints of a culture that objectifies women’s bodies” (p.49).

There is a clear gap in the literature regarding how women’s refusal to conform to cultural norms may be a possible strategy for resisting body dissatisfaction. Consistent with the calls within the field to respect women’s capacity for agency and to examine
strengths and resiliency in the face of adverse and unhealthy influences (e.g., Davis, 1995; Rubin et al., 2004), it seems reasonable to explore further the active resistance strategies that women may use to resist body dissatisfaction. Despite factors that appear to draw most women toward body dissatisfaction, there is substantial evidence that a sizeable percentage of women are satisfied and even happy with their bodies at least some of the time (Smolak, 1996; Spitzer et al., 1999). A strengths-based, positive psychology approach consistent with the traditions of counseling psychology asks that researchers examine how these women effectively fight against the societal trends that bring so many down – and manage to triumph (e.g., Ryaff & Singer 1998; Seligman, 2002; Seligman & Czikszentmihalyi, 2000). The body of literature regarding body dissatisfaction is poised to further illuminate active resistance strategies that women may use to defend against the internalization of the cultural thin body ideal and its associated negative consequences (i.e., body dissatisfaction, disordered eating).

The Sociocultural Model of Bulimia

Over the past twenty-five years, several theories have been developed to help understand and explain the roots of disordered eating behaviors, including sociocultural theory (Steiner-Adair, 1986; Stice, 1994; Streigel-Moore et al., 1986), social comparison theory (Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999), and developmental transitions theory (Levine & Smolak, 1992). Of these theories, sociocultural theory has evolved into a parsimonious and potentially useful framework for understanding the possible role of resistance factors against body dissatisfaction. Therefore, within the context of the present study, this theory and the model developed from it warrant further review.
Sociocultural Theory

Specifically, sociocultural theory links the prevalence of body dissatisfaction and eating disorders with an increase in sociocultural factors and cultural trends that emphasize a thin ideal as a central component of attractiveness for women (Streigel-Moore et al., 1986). Sociocultural theory was developed by several researchers who worked to integrate the early literature regarding eating disorders, including the works of Streigel-Moore et al. (1986), and Steiner-Adair (1986). Bulimia nervosa first received notice in the media and within psychological research beginning in the early 1980s with its addition to the DSM-III in 1980 (American Psychiatric Association, 1980). In 1986, Streigel-Moore et al. attempted to draw together early eating disorders research to understand the risk factors and etiology of bulimia. A review of the literature suggested that the socialization of girls in Western culture and our sociocultural values regarding thinness and attractiveness are major contributors to the development of disordered eating.

Striegel-Moore and colleagues (1986) highlighted research examining possible explanations for why disordered eating, specifically bulimia, was increasingly prevalent in women and why bulimia had become so commonplace at this point in time in Western culture. After reviewing the available research, they concluded that obesity has become highly stigmatized in modern Western culture and that society highly values attractiveness and thinness. They found that the empirical literature clearly demonstrated that the value of thinness and attractiveness was embraced by people of all ages and was applied more strongly to women than men (Streigel-Moore et al., 1986). Bulimic women within these studies both aspired to thinner ideal body sizes and reported greater
acceptance of these cultural values and ideals. Acceptance of and adherence to the thin ideal were more common and more intense in women of higher socioeconomic status and in young women who lived in groups (e.g., dorms). The authors conjectured that greater acceptance of and adherence to the thin ideal were due to greater pressures to follow clothing fashions, increased competition, pressure from peers to be thin, and pressure to date within these communal living arrangements. Data also began to emerge suggesting that women who spent part of their lives in subcultures that blatantly emphasized weight and size (e.g., dancers, models, athletes, etc.) appeared to be more prone to the development of eating disorders (Streigel-Moore et al., 1986).

This early research (Streigel Moore et al., 1986) also began to document that women’s desire for thinness and their adherence to traditional feminine gender roles appeared to be linked. Thinness was hypothesized as a personal accomplishment for some women, a matter of identity as a woman, and another way to compete against men (i.e., a woman can do everything a man can do within the work world and look beautiful and be feminine doing it). In addition, those who did not conform to the thin ideal were conceptualized as flouting traditional female roles. This conceptualization may mark the beginning of disordered eating literature that explores the impact of feminist attitudes and gender roles on resisting societal messages regarding the thin idea (Streigel-Moore et al., 1986).

Streigel-Moore et al.’s (1986) review of the empirical literature revealed that sociocultural pressures from family, friends, peers, and media to meet the thin ideal seemed to be increasing. Families, media, teachers and peers were placing greater emphasis on appearance for girls in childhood than in previous decades. Research
revealed an increase in thin images of models/actresses in the media, marketed crash diets, and increased preoccupation/obsession with fitness, along with an increase in the belief that the thin-ideal body is achievable by any woman willing to work for it.

Steiner-Adair (1986) supported the discussion regarding the sociocultural influences on disordered eating by exploring the relationship between the development of disordered eating and the concept of internalization of cultural ideals for women. Examining research from both the disordered eating and adolescent developmental literatures, the author concluded that it is developmentally normal for young women to be socialized to be unaccepting of their bodily imperfections and it is “normal and socially adaptive for girls to diet” (Steiner-Adair, 1986, p. 96), despite the fact that these behaviors are proposed to lead to disordered eating.

Steiner-Adair (1986) tested the hypothesized link between adherence to sociocultural values and disordered eating within a sample of thirty-two female participants (aged 14-18) from a private girls’ school in New York State. The participants completed a semi-structured interview focusing on perceptions of cultural values and cultural and individual images of women. As part of the interview, they were questioned regarding their understanding and acceptance of a modern societal ideal for women, which included career and family roles and desired appearance. Three weeks later they completed diagnostic eating disorder measures.

Sixty percent of the interview respondents were categorized as “Wise Women” (Steiner-Adair, 1986), who were characterized as clearly cognizant of society’s image of the ideal woman (i.e., traditionally beautiful; well-groomed; successful and powerful in her career; and handling a career, family, and romantic relationship with balance and
ease). However, further questioning revealed that these young women had not internalized these societal ideals as their own (Steiner-Adair, 1986), reflecting an awareness of societal ideals without a personal acceptance of those ideals. Forty percent of the sample was categorized as “Super Woman,” reflecting women who both recognized society’s image of the ideal women and accepted and internalized this ideal as their own. Those who identified more strongly with the “Super Woman” values (i.e., had internalized the thin-ideal and traditional feminine gender roles) were at greater risk for developing eating disorders. These women reported more concern with weight, engagement in dieting behavior, and concern about appearance than the “Wise Women” (Steiner-Adair, 1986). Upon examining these results, Steiner-Adair (1986) posited that some young women (i.e., the “Wise Women”) are able to acknowledge the thin ideal along with other cultural ideals in a way that does not put them at risk for developing eating disorders. Steiner-Adair (1986) suggested that the “Wise Women” were more concerned about their weight for psychosocial and relational reasons (e.g., dating and fitting in socially), while the “Super Women” associated thinness with autonomy, success, and independence. Thus, those who related thinness with personal identity were more likely to develop body dissatisfaction and disordered eating behaviors. Importantly, Steiner-Adair’s findings suggest that some women may be exposed to sociocultural pressures, yet are able to refrain from internalizing them in ways that lead to the development of body dissatisfaction.

*Early Sociocultural Models of Disordered Eating*

Two disordered eating models (McCarthy, 1990; Polivy & Heatherton, 1992) grew out of the disordered eating literature (e.g., Steiner-Adair, 1986; Striegel-Moore et
al., 1986) and proved highly influential in the development of the Sociocultural Model of Bulimia (SMB; Stice, 1994). McCarthy proposed that the cultural ideal of thinness for women leads to body dissatisfaction, which then leads to depression when they are not able to achieve the thin-ideal body. She coined and defined the “thin ideal” as “the standard of beauty presented in the fashion media” (McCarthy, 1990, p. 205). Further, she hypothesized that body dissatisfaction develops due to the importance placed on meeting the thin ideal. In other words, body dissatisfaction does not develop unless appearance is important to the individual. This leads to a negative triad, including negative feelings about self, the future, and the world, along with low self-esteem and dieting behaviors, as described by Beck (1973). These negative feelings and self-evaluation, in turn, lead to depression. According to McCarthy (1990), depression may also be experienced when women perceive that body size is something they should be able to control, and believe that they are failing to control their bodies when they do not meet the thin ideal (see Figure 2).

McCarthy (1990) argued that women might develop eating disorders because of this depression, or in an attempt to stave off depression. She proposed that eating disorders are on the increase because the thin ideal continues to get thinner while women are getting heavier. This general growing discrepancy between the ideal female body and the actual female body in Western society leads to more depression and thus more eating pathology.

Heatherton & Polivy (1992) examined the relationship between dieting and the development of eating disorders, as posited by their spiral model. Their examination of the literature led them to conclude that the decision to diet comes from several factors:
body-image dissatisfaction brought on by failure to match the thin ideal, personality and adjustment factors (e.g., self-esteem, neuroticism, stress), and responses to dieting efforts (e.g., weight fluctuation, chronic dieting). Bingeing (i.e., disinhibited eating) may occur due to cognitive overload from trying to control eating or as a masking tool – the dieter sabotages her diet when something goes wrong in life so that she can be upset about ruining her diet rather than the actual problem. Bingeing may also follow periods of diminished self-awareness that lower inhibitions (Heatherton & Polivy, 1992), for
example, after consuming alcohol. They proposed that while diets may begin with low self-esteem, depression and negative affect, and cognitive factors (e.g., ignoring internal sensations of hunger), these same factors may also become the consequences of dieting. This may lead to a spiral pattern of dieting, bingeing and psychological consequences leading to more dieting, more bingeing, and more consequences. With repetition and over time, dieting may become a habit that develops into a clinical eating disorder. This occurs “further down the spiral” (Heatherton & Polivy, 1992, p. 148; see Figure 3). Stice

Figure 3: Heatherton and Polivy’s (1992) Spiral Model
(1994) drew from the work of Streigel-Moore et al. (1986) and Steiner-Adair (1986), as well as the works of McCarthy (1990) and Heatherton and Polivy (1992) to develop the SMB.

The Sociocultural Model of Bulimia

The Sociocultural Model of Bulimia (SMB; Stice, 1994) integrates the main hypotheses of others (e.g., McCarthy, 1990; Polivy & Heatherton, 1992; Streigel-Moore et al., 1986; Steiner-Adair, 1986) about the influence of sociocultural factors on disordered eating. In addition, Stice endeavored to create a framework that allowed for a more comprehensive understanding of the forces, including possible resistance factors, that may affect the relationship between the internalization of sociocultural factors regarding the thin ideal and the development of disordered eating symptomology. The result of Stice’s work, the SMB, has received a great deal of attention and empirical support since its publication in 1994. According to this model (see Figure 1), increased pressures to have an unrealistically thin body are responsible for an increase in eating disorders, specifically bulimia nervosa. The SMB describes a mediational model, wherein the relationship between sociocultural pressures and the development of bulimia nervosa is partially mediated by internalization of the ideal body, body dissatisfaction, restrained eating, and negative affect.

The SMB additionally theorizes that: (a) The thin body ideal is present in Western culture for women and there are pressures to conform to the thin ideal. Within this culture, adherence to the thin ideal is important to achieve in order for women to gain social success (e.g., dating, friendships, employment) and conform to female gender roles. Research supports the prediction that more traditionally attractive and thin women
are more likely to date, marry, develop support networks, and be successfully employed than are less attractive women (Stice, 1994). Pressures to meet the thin ideal (e.g., from family, peers, and the media) lead women to internalize a thin ideal body shape. This may occur through teasing and comments from important people in a female’s life or through exposure to media endorsing the thin ideal (Stice, 1994). Family and friends who are cognizant of the cultural importance of conforming to the thin-ideal may pressure a woman in an attempt to help her fit in and become more successful in her environment. (b) The thin ideal is not a realistic or achievable goal for most women. Thus, internalization usually leads to body dissatisfaction when a woman’s body does not match her desired ideal body shape. Less than 1% of women are able to meet the current average measurements of the “average” fashion model (Stice, 1994). (c) Body dissatisfaction is a known risk factor for eating disorders, and may lead women to engage in weight control strategies, namely restrained eating behavior. It may also lead women to engage in affect-regulation, a process by which women engage in harmful behavior in an attempt to relieve distressing emotions (e.g., purging to relieve feelings of body dissatisfaction or guilt regarding food consumption). There is evidence that body dissatisfaction leads to depression (Fredrickson & Roberts, 1997) and that bulimia may be an affect-regulation strategy that is used to control negative emotions. (d) Restrained eating behavior and negative affect may both lead to the development of bulimia, as the disorder is an extreme form of restrained eating and subsequent bingeing. According to Stice (1994), these patterns are thought to regulate affective states for those who engage in the behavior (i.e., some women purge to receive relief from feelings of guilt after eating or bingeing). Thus, according to the SMB, the relationship between sociocultural
pressures to adhere to the thin ideal and eating pathology is an indirect one, mediated by internalization of the thin ideal, body dissatisfaction, and restrained eating and negative affect (Stice, 1994).

Stice (1994) acknowledged that a serious limitation of the model is that it does not explain or account for the women who do not develop body dissatisfaction or eating pathology. Some women do not assimilate the thin ideal into their cultural values or may do so in more adaptive ways (Steiner-Adair, 1986). In an attempt to account for women’s differential experiences, Stice (1994) hypothesized that certain individual difference variables (e.g., self-esteem, identity confusion, BMI, coping skills) may moderate the relationships between the variables that mediate the experience of sociocultural pressures leading to eating pathology. Other moderating protective factors also may be present for some women (i.e., personality and biological influences). Stice (1994) defines a moderating variable as “a variable that affects the direction and/or strength of the relation between two variables” (p. 645). He posited that relationships between additional variable pairs in the model may also have moderators; for example:

a.) The relationship between Sociocultural Influences and Internalization may be moderated by individual self-esteem and identity confusion, as women with low self-esteem and weak self-identities may be more likely to adopt the thin ideal;

b.) The relationship between Internalization and Body Dissatisfaction may be moderated by individual body weight, with women who have a heavier body weight being more prone to the development of body dissatisfaction;

c.) The relationship between Restrained eating and Bulimia may be moderated by the modeling of restrained eating by family, peers, and the media. Impulsivity and lack
of coping skills may also moderate this relationship. Specifically, the ways in which women react to not meeting the thin ideal may be influenced by observing the ways in which other women cope with exposure to the thin ideal (e.g., witnessing mother dieting or reading about eating disordered celebrities bingeing and purging).

d.) The relationship between Negative Affect and Bulimia may also be moderated by the use of specific individual coping skills, such as tendency to seek social support and stress reduction.

_Empirical Support for the Sociocultural Model Of Bulimia_

The SMB has been subjected to a number of empirical examinations since its inception in 1994. The following section will describe the empirical literature that addresses the SMB’s ability to predict bulimic eating behavior and the appropriateness of the proposed relationships within the model (i.e., relationships between Sociocultural Pressures, Internalization of the Thin-Ideal, Body Dissatisfaction, Dietary Restraint, Negative Affect, and Bulimia). Specifically, the direct and mediational relationships proposed by Stice (1994) within the SMB will be explored. In addition to these relationships, the importance of the role of vulnerability in the development of internalization will be examined, along with the current findings regarding the generalizability and proposed directionality of the SMB. A review of this literature and brief summary will demonstrate the usefulness of the SMB as framework for exploring factors that may offer protection from internalizing sociocultural pressures to meet the thin ideal and developing body dissatisfaction.
Tests of model-data fit for the Sociocultural Model of Bulimia

Research conducted by Stice and his colleagues has provided substantial support for the SMB. In 1994, Stice et al. conducted a preliminary cross-sectional study of the SMB to evaluate the hypothesized relationship between media exposure and disordered eating symptoms, mediated by thin-ideal body internalization and body dissatisfaction. They predicted that media exposure (a source of sociocultural pressures) would indirectly predict eating pathology via internalization of the thin ideal and body dissatisfaction. They also proposed and tested three additional paths. First, they proposed that media exposure could be directly related to eating pathology, as bingeing and purging may be a form of weight control learned directly from media exposure. The direct path from media exposure to eating pathology was not explicitly stated in Stice’s (1994) representation of the SMB. Second, they anticipated that internalization might also lead directly to eating pathology, such that women who are satisfied with their bodies might still engage in disordered eating in order to maintain their current satisfactory weight (Stice et al., 1994). Third, they proposed that a new mediating factor, gender-role endorsement, would effect the relationship between media exposure and eating pathology. They hypothesized that this new variable would be sequenced in the SMB between media exposure and internalization.

Two hundred and thirty-eight undergraduate women (mean age = 20) completed measures assessing media exposure, ideal-body stereotype internalization, body dissatisfaction, and eating disorder symptomology (Stice et al., 1994). Media exposure was measured using a 6-item scale created by the authors that asked participants to indicate the number of magazines they had looked at in the past month and the number of
hours of television they had watched over the past month (not including news/educational programming or magazines). Internalization was assessed with another measure created for this study that asked participants to indicate their level of agreement with statements reflecting stereotypes of the thin ideal female body. Body dissatisfaction was measured using the Body Satisfaction subscale of the Eating Disorders Inventory (Garner, Olmsted, & Polivy, 1983). Disordered eating was assessed with the Eating Attitudes Tests (Garner, Olmsted, Bohr, & Garfinkel, 1982). Gender role adherence was also assessed as an additional possible mediating factor in the relation between media exposure and eating pathology, specifically placed between media exposure and internalization, and was assessed using the Attitudes Toward Women Scale (Spence, Helmreich, & Strapp, 1973) and Attitudes Toward the Male Role Scale (Doyle & Moore, 1978).

The results of structural equation modeling indicated that the a priori model had good fit (TLI and CFI >.90) and that the model would not be significantly improved by the addition of other paths (Stice et al., 1994). The SMB accounted for 43.5% of the variance in eating disorder symptoms, 13.3% of the variance in internalization, and 2.8% of the variance in body dissatisfaction.

Media exposure was significantly and directly related to eating disorder symptoms ($\beta = .30, p < .001$). The direct relationship between media exposure and thin-ideal internalization was found to be non-significant. However, tests of the mediational pathways in the SMB indicated that media exposure was indirectly related to thin-ideal internalization via gender-role endorsement ($\beta = .08$). Gender-role endorsement was indirectly related to both body dissatisfaction via internalization ($\beta = .06$) and eating disorder symptoms via internalization and body dissatisfaction ($\beta = .04$). Additionally,
internalization was indirectly related to disordered eating via body dissatisfaction ($\beta = .10$). These mediational effects suggest that internalization of the thin ideal and body dissatisfaction are important partial mediators of the effects of sociocultural pressures on the development of disordered eating. These findings support the hypothesized indirect relationship between media exposure and eating disorder symptoms.

The results of the Stice et al. (1994) study appear to provide preliminary support for nearly all of the major pathways posited by the SMB. However, the study did present some limitations. The measure of media pressure, a six-item self-report scale created by the authors for the study, assessed the number of magazines participants read over a month-long period and the number of hours they spent watching TV. Although this measure had appropriate test-retest reliability ($r = .76$), it may not have captured all influences that the media may put forth that promoted the thin ideal. For example, the types of magazines and television shows viewed may change the amount of media endorsing the thin ideal (e.g., a sitcom with female main characters may contain more thin-ideal images and female-image focused commercials during the time slot than does a football game), and other media exposure (e.g., movies, billboards, etc.) was not measured. Internalization was also assessed by an author-created measure and may have suffered from the same problems as the media pressure measure. In addition, this study looked at all types of eating disorder symptomology rather than dividing the assessment of symptoms in bulimia and anorexia. This is particularly unusual as the SMB is proposed to specifically explain the development of bulimic symptomology. It is possible that the somewhat general focus of this preliminary study did not capture the exact nature of the cycle that results in bulimic symptomology. In summary, these
findings indicate that the development of body dissatisfaction and bulimic symptoms was only partially explained by the proposed model.

Stice and colleagues (1994) then conducted a study that examined whether the amount of time spent consuming media made a difference in the development of body dissatisfaction and eating pathology. They also tested the SMB assumption that repeated exposure to thin-ideal images in the media would lead women to internalize the thin ideal. This would, in turn, lead to body dissatisfaction and eating pathology. In this cross-sectional study, 238 undergraduate men and women were given measures assessing media exposure, gender-role endorsement, ideal-body stereotype internalization, body dissatisfaction, and eating disorder symptomology (Stice et al., 1994). Media exposure was measured by a questionnaire created by the authors for this study that assessed the amount of time interacting with media – specifically magazine, movies, and television. Thin-ideal internalization was also measured by a test created for the study that consisted of the degree to which participants agreed with stereotypes for the ideal female body.

Results of Stice et al.’s (1994) analysis demonstrated that the amount of media exposure was significantly and positively related to eating disorder symptomology and gender-role endorsement, and was indirectly related to thin-ideal internalization through gender role endorsement. This was the first research to establish a positive relationship between the amount of time spent consuming media and the development of eating disorder symptomology. Assessing media consumption in this way provided a more real-world view of the way in which women interact with media and the thin-ideal images that media often contains. As the SMB is considered a developmental model, these results also provided support for role of repeated exposure to thin-ideal images over time in the
SMB. However, this study also used author-generated measures that may have not provided adequate measurement of media exposure and internalization.

Stice (2001) took another step toward examining the SMB more thoroughly by conducting a longitudinal study of the model’s ability to predict bulimia. He argued that a test of a developmental mediational model of bulimia has never been attempted because “longitudinal studies that investigated mediation models may not have been able to provide evidence of temporal precedence for each of the constituent pathways in the multivariate models” (p. 124). The SMB is proposed as a developmental model that functions within time. In other words, the factors are more than related – they occur in the order specified as a result of causal relationships. Thus, he proposed using a random regression growth curve model in an attempt to meet Baron and Kenny’s (1986) criteria for mediation. Stice stated that:

There is no accepted test of mediation that generates . . . evidence for each of the criteria proposed by Baron and Kenny (1986), specifically that (a) the independent variable predicts the mediator, (b) the mediator predicts the dependent variable, and (c) a significant relation between the independent and dependent variable becomes weaker when the effect of the mediator is controlled statistically (p. 124).

It was Stice’s intention to use the random regression growth curve analyses to meet these criteria and provide support for causal relationships within the SMB. Stice aimed to use this study to test the assumptions of the SMB and predicted that the relationships within the model would behave as proposed in the initial description of SMB.

Stice (2001) recruited a diverse population of 231 young women between the ages of 13-17 years from private high schools. Participants completed self-report measures assessing seven key constructs within the model at three intervals: baseline, after 10
months, and after 20 months. These constructs included perceived pressure to be thin, internalization of the thin ideal, body dissatisfaction, restrained eating, negative affect, body mass, and bulimic symptoms (Stice, 2001). Perceived pressure to be thin was assessed by the Perceived Sociocultural Pressure Scale (Stice & Agras, 1998), internalization was assessed with the Ideal-Body Stereotype Scale-Revised (Stice & Agras, 1998), and body dissatisfaction was measured by the Satisfaction and Dissatisfaction with Body Parts Scale (Berscheid, Walster, & Bohrnstedt, 1973). Restrained eating was measured by the Dutch Restrained Eating Scale (DRES; van Strien, Frijters, van Staveren, Defares, & Deurenberg, 1986), negative affect was assessed using Buss and Plomin’s (1984) Emotionality Scale, and The Eating Disorder Examination-Questionnaire (Fairburn & Cooper, 1993) was used to assess bulimic symptomology.

Stice’s analysis demonstrated an overall increase in observed bulimic symptoms over the 20-month period for participants. He also found that initial pressure to be thin and thin-ideal internalization were positively and significantly related to subsequent growth in body dissatisfaction (Stice, 2001). These latter findings provided support for some of the posited temporal relationships within the model. After controlling for baseline levels of all possible outcome variables (i.e., internalization, body dissatisfaction, restrained eating, negative affect, and bulimic symptoms) seven of the eight mediational links of the SMB examined (e.g., pressure to be thin leading to restrained eating via its effect on body dissatisfaction) supported the posited mediational nature of the SMB.
The results of another random regression model indicated that body dissatisfaction predicted growth in dieting and negative affect over time, again providing support for the supposition that the SMB evidences causal links (Stice, 2001). Additionally, initial levels of dieting behavior and negative affect predicted growth in bulimic symptoms over time. Initial dieting predicted only marginally significant growth in negative affect (Stice, 2001). The relationship between sociocultural pressure and bulimia was then examined for meditational effects by controlling for the mediating factors’ change over time. Results indicated that there were meditational effects within the model. The relationship between pressure to be thin and restrained eating was weakened when the effects of body dissatisfaction were controlled, indicating that body dissatisfaction accounted for 25% of the total effect (Stice, 2001). Similarly, body dissatisfaction accounted for 50% of the total effect between pressure to be thin and negative affect, and 35% of the total effect between internalization and dieting. Body dissatisfaction was found to be an important factor in predicting future disordered eating behaviors and mediating several of the relations posited by the SMB. Thus, pressure to be thin is directly and indirectly (via body dissatisfaction) related to restrained eating, and internalization is directly and indirectly (via body dissatisfaction) related to restrained eating. These results provide strong evidence for the meditational nature of the relationships among the key constructs within the SMB.

As a result, Stice (2001) concluded that the results provided prospective support for the criteria of a mediated model. Stice also found that all of the factors within the SMB were also directly related to future weight gain. These results suggest that the SMB is specific to bulimia rather than anorexic symptoms because a model of anorexia would
predict future weight loss. The full model accounted for 23% of the variance of growth of bulimic symptoms after controlling for baseline levels of bulimia.

Although supportive of the SMB, the accuracy of Stice’s (2001) data may have been compromised by the use of self-report measures with teenagers. Furthermore, initial data presented in this study gave little information about the generalizability of the SMB for use with a clinical bulimic population or a population with lower (or even average) socioeconomic status. Nevertheless, the results of Stice’s (2001) longitudinal study give some prospective evidence for the validity of the SMB, thus warranting further and more specific tests of its validity.

*The Relation of Vulnerability to Internalization in the SMB*

Vulnerability to internalization is a common thread throughout the research on the SMB. Specifically, it seems that some factors may make women more vulnerable to the effects of sociocultural pressures and internalization. A study by Lokken, Worthy, and Trautman (2004) considered the links among the number of magazines read, magazine preference, awareness and internalization of the thin ideal, and presence of disordered eating symptoms. Their results indicated that women who preferred to read health and fitness magazines were more motivated to reach the thin ideal. Awareness and internalization were significant and positive predictors of body dissatisfaction and drive for thinness, accounting for most of the variance in those factors and predicting above and beyond quantity of magazine exposure and magazine preference. These results suggest that the degree to which a woman is aware of and has internalized the thin ideal is more important than the amount of media exposure and the type of media exposure.
This study gave evidence that previous exposure and vulnerability (evidenced by awareness and internalization of the sociocultural thin-ideal) mattered more than quantity of magazines read and magazine preference (Lokken et al., 2004). This suggests that awareness and internalization are extremely important mediating factors within the SMB that may help to account for why some women do not develop disordered eating behaviors following media exposure – perhaps these women internalize the media to a lesser extent.

Stice, Spangler, and Agras (2001) demonstrated support for the role of initial vulnerability in the development of body dissatisfaction and bulimic symptoms. They conducted the first longitudinal experimental study of the effects of long-term exposure to thin-ideal media images. The authors hypothesized that elevated body dissatisfaction, lack of social support, and elevated perceived pressure to be thin would predict an increase in negative consequences (i.e., body dissatisfaction and the development of disordered eating) following exposure to the thin ideal. This study was an attempt to replicate exposure in the natural environment and examine the factors that are proposed to mediate the relationship between sociocultural pressure and bulimic symptoms in the SMB.

A diverse sample of two hundred and nineteen teenage girls (aged 13-17) from a private West Coast high school was randomly assigned to a 15-month fashion magazine subscription condition or a “no subscription” condition. Body mass, perceived pressure to be thin, social support, internalization, body dissatisfaction, dieting, negative affect, and bulimic symptoms were assessed. The results indicated that long-term exposure had no effect on internalization, body dissatisfaction, dieting, negative affect, or bulimia.
Mediating relationships were not assessed because the authors failed to find any significant main effects over time.

However, among those who were initially vulnerable (i.e., had initial elevations in perceived pressure to be thin, higher body mass, and deficits in social support), increased negative affect, body dissatisfaction, dieting, and bulimic symptoms developed when these participants did not have adequate social support (Stice et al., 2001). This study supports the notion that media exposure to thin-ideal images may not have long-term adverse effects unless the consumer of these images is already vulnerable regarding initial body dissatisfaction, lack of social support, and higher perceived pressure to be thin. This may explain why so few women develop eating disorders, despite the overwhelming presence of body dissatisfaction (Stice et al., 2001). It may be that most women do not have these factors that make them particularly vulnerable or that a particular combination or number of vulnerability factors is required before a women becomes at-risk for body dissatisfaction and bulimia symptomology. However, it is interesting to note that the participants of this study were already in their teen years. It may have been that vulnerability to sociocultural pressures may already have been exploited by this time and led to internalization. There is evidence that girls internalize the thin ideal and express body dissatisfaction and weight concerns as young as 6 years of age (Murnen et al., 2003). This makes it difficult to know what effect one magazine subscription might have on teenaged girls, even with a measurement of baseline awareness and internalization of these images. Additionally, the authors were not able to control the participants’ extraneous media exposure outside of the study. It is unknown if the participants in the “no subscription” condition received the magazine subscription
independently or subscribed to other fashion/beauty magazines that may have confounded the study.

**Generalizability of the Sociocultural Model of Bulimia**

Although the framework and factors of the SMB have been explored in great detail, the majority of the research evidence is based upon participants who were young women aged 13-22, recruited from non-clinical high school and college populations. This is generally an appropriate sample given that it represents a population at high risk for developing disordered eating. However, the literature is largely lacking in information regarding the generalizability of the model. One study stands out in this regard. Stice, Ziemba, Margolis, and Flick (1996b) performed an early test of the SMB’s applicability to a population with clinically significant levels of bulimic symptoms. The authors sought to examine whether there were differences between participants with bulimia and control participants on the variables of the SMB. They also wanted to assess whether the variables of the SMB could discriminate between clinical and non-clinical levels of bulimia among participants, and whether the SMB provided support for the continuity hypothesis of disordered eating. The continuity hypothesis states that non-clinical symptoms of bulimia and clinical levels of bulimia are simply on two different ends of the same disordered eating continuum (Stice et al., 1996b). They hypothesized that the SMB variables would be able to discriminate bulimics from controls and those with clinical bulimia from those with non-clinical bulimia. Stice and colleagues further hypothesized that the SMB would provide evidence for the continuity hypothesis through evidence that the same factors that discriminate control participants from participants with sub-clinical levels of bulimia would also discriminate participants with sub-clinical
levels of bulimia from participants with clinical levels of bulimia. Support for this hypothesis would support the use of the SMB with both clinical and non-clinical bulimic populations.

Participants were 117 high school students and 117 college students from a larger sample who reported bulimic symptoms (Stice et al., 1996b). The sample was divided into two groups with either clinical or subclinical levels of disordered eating, and a control group. BMI, perceived sociocultural pressure, ideal-body internalization, body dissatisfaction, dietary restraint, and negative affect were assessed. BMI was calculated based on self-reported height and weight (CDC, 2006). Perceived sociocultural pressure was assessed with a measure created by the authors for this study. The participants indicated the amount of pressure they perceived from interpersonal relationships and media to meet the thin ideal on a 7-point Likert scale (Stice et al., 1996b). Internalization was measured using an adapted form of the Ideal-Body Stereotype Scale (Stice et al., 1994). Body dissatisfaction was assessed using an adapted form of the Satisfaction and Dissatisfaction With Body Parts Scale (Berscheid, Walster, & Bohrnstedt, 1973), while dietary restraint was measured with the restrained eating scale of the Dutch Eating Behavior Scale (van Strien, Frijters, van Staveren, Defares, & Deurenberg, 1986). Negative affect was assessed using the Positive Affect and Negative Affect Scale-Revised (PANAS-X; Watson & Cark, 1992).

Consistent with expectations, overall perceived pressure to be thin, partner pressure, media pressure, ideal-body internalization, dietary restraint, and negative affect significantly differentiated between controls, sub-clinical bulimics, and clinical bulimics (Stice et al., 1996b). Participants in the clinical group scored significantly higher than
both of the other groups on all but one of the measured variables (body mass; Stice et al., 1996b). Perceived pressure from family and friends, body dissatisfaction, and anxiety did not reliably discriminate between sub-clinical and clinical bulimics, but did separate controls from sub-clinical levels of bulimia. This indicates that some factors of the SMB predict bulimic symptoms for both clinical and non-clinical populations, while other factors only discriminate between the presence and absence of bulimic symptoms. These results provide qualified support for the continuity perspective (Stice et al., 1996b). Although this research is somewhat limited by use of self-report measures and its cross-sectional nature, it provides some evidence for the usefulness of the SMB with both clinical and sub-clinical bulimic populations.

Thus, early research regarding the generalizability of the SMB appears to provide some support for the usefulness of this model with clinical and non-clinical bulimic samples. This area of research regarding the SMB is sorely lacking and greatly in need of further study and expansion to fully understand the efficacy of using this model with other populations, such as women of different ages and ethnic backgrounds.

Evidence for directionality of the Sociocultural Model of Bulimia

Stice and Agras (1998) examined the factors of the SMB (social pressure to be thin, internalization, body dissatisfaction, negative affect, and dietary restraint) as risk factors that influence the onset and cessation of bulimic symptomology using a longitudinal design. They additionally examined BMI as a possible mediating factor in the relationship between sociocultural pressures and disordered eating. The authors hypothesized that elevated sociocultural pressures, BMI, internalization, body
dissatisfaction, dieting, and negative affect would predict the onset of bulimic symptoms in adolescents who were symptom-free at the beginning of the study.

The sample was composed of 218 adolescent females, aged 16-18 years old. Body Mass Index, perceived sociocultural pressure, internalization, body dissatisfaction, dietary restraint, affect, and bulimic symptoms were assessed at the beginning and end of a 9-month period. Body Mass Index was assessed using self-reported height and weight (Stice & Agras, 1998). The Perceived Sociocultural Pressure Scale (Stice, Numeroff, & Shaw, 1996) was used to measures perceived sociocultural pressure, while internalization was assessed using the Ideal-Body Stereotype Scale-Revised (Stice et al., 1996b). Body dissatisfaction was measured using the Satisfaction and Dissatisfaction with Body Parts Scale (Berscheid et al., 1973). The Dutch Restrained Eating Scale (van Strien, et al., 1986) was used to assess restrained eating. Negative affect was measured using the PANAS-X global negative affect scale (Watson & Clark, 1992). Bulimic symptoms were assessed using the Bulimia Test Revised (BULIT-R; Thelen, Farmer, Wonderlich, & Smith, 1991) and the bulimia subscale of the Eating Attitudes Test (EAT-26; Garner, Olmstead, Bohr, & Garfinkel, 1982).

First, the participants were grouped based on bulimic symptoms or lack thereof. Analyses of the prediction of the onset of bulimic behaviors using repeated measures analyses of variance (ANOVAs) indicated that greater perceived social pressure, internalization, and body dissatisfaction at Time 1 predicted the onset of binge eating (Stice & Agras, 1998). Higher initial dieting and negative affect also predicted the onset of binge eating, but higher BMIs did not. Discriminant analysis indicated that the factors of the SMB also differentiated between the symptom-free and bulimic symptom groups.
Lower levels of internalization and body dissatisfaction at time Time1 predicted the cessation of bingeing among binge eaters at Time 2. BMI, perceived pressure to be thin, dieting, and negative affect levels at Time 1 did not predict the cessation of binge eating at Time 2.

The data in Stice and Agras’ (1998) study provided important information regarding the directionality of the model. This is supported by the onset of bulimic behavior among initially symptom-free individuals; the flow goes from sociocultural pressures through mediating factors to bulimia. There was no evidence for a reciprocal or circular model, meaning that women do not cycle through the model. Additionally, lower levels of some factors (i.e., internalization and body dissatisfaction) predicted cessation of bulimic symptoms, indicating that the SMB appears to work as described by Stice (1994). Potential limitations of this study include exclusive reliance on self-report data, and a relatively short time span between Time 1 and Time 2.

**Summary and Conclusions**

The SMB presents a comprehensive and relatively succinct picture of the development of body dissatisfaction and bulimic symptomology. There appears to be general support for the SMB overall and the mediating role of internalization and body dissatisfaction within the relationship between sociocultural pressures and the development of disordered eating. The empirical literature also provides support for the SMB’s ability to assess the entire continuum of disordered eating and distinguish between clinical and non-clinical populations (Stice et al., 1996b). Additionally, Stice and Agras (1998) demonstrated evidence that the SMB does function in the order originally proposed by the SMB.
Interestingly, there is some evidence that being “vulnerable” to internalizing sociocultural pressures and the extent of internalization appear to be more important in the development of body dissatisfaction and disordered eating than the amount or type of media exposure experienced (Lokken et al, 2004). Further, Stice et al. (2001) present evidence that long-term exposure to media does not have an impact if the person exposed is not initially vulnerable to internalizing these sociocultural pressures and developing body dissatisfaction. This finding lends support to the possibility that resistance factors – factors that can be actively cultivated to reduce that vulnerability – can be used to buffer the negative effects of sociocultural pressures. The proposed dissertation intends to utilize a cross-sectional design for an initial exploration of possible resistance factors, specifically self-determined non-conformity, feminist ideals, and rejection of feminine gender roles.

Extending the Sociocultural Model of Bulimia

Since its inception in 1994, the SMB has gone through various incarnations. The SMB was acknowledged early on as a useful framework for understanding the development of disordered eating. However, Stice (1994) posited that moderating factors must exist within the framework of the model, since not all women exposed to sociocultural pressures end up developing disordered eating symptoms. Following the development of the SMB, numerous researchers suggested factors that had the potential to alter (specifically, decrease) the development of internalization, body dissatisfaction, and/or disordered eating by moderating some of the key paths of the SMB. This may be termed a search for resistance factors, which is also the focus of this dissertation. This study will examine some of the posited moderators of the sociocultural pressures to
internalization and internalization to body dissatisfaction paths, specifically self-determined non-conformity, endorsement of feminist ideals, and rejection of traditional feminine gender roles.

As previously stated, women’s vulnerability to sociocultural pressures can have serious consequences in the form of higher levels of internalization of sociocultural pressures, leading to increased body dissatisfaction and disordered eating. It therefore seems very important to study resistance factors that may moderate the relationship between sociocultural pressures and internalization. It is also possible that it may not be easy to alter levels of internalization once a female reaches her teenage or adult years. Research suggests that women may internalize sociocultural pressures at such a young age that it is difficult to alter the relationship between sociocultural pressures and internalization later on in a women’s lives (Murnen et al., 2003). Therefore, it also makes sense to examine resistance factors in the path between internalization and body dissatisfaction. In the section to follow, I will examine the research evidence bearing on three potential moderators (self-determined non-conformity, endorsement of feminist ideals, rejection of traditional feminine gender roles) by reviewing research that has suggested, at least indirectly, how these factors may moderate the relations of interest.

Twamley and Davis (1999)

Twamley and Davis (1999) examined general non-conformity, gender roles, and feminist ideals as possible moderating factors of the SMB. Their research provides a starting point for exploring factors that may moderate the relationship between sociocultural pressures and internalization. The authors attempted to replicate a simplified version of the SMB and extend our understanding of the SMB by examining
the potential influences of nonconformity, self-esteem, perceived shape, and social influence of the family as moderators of the links between sociocultural pressures, internalization, body dissatisfaction, and eating pathology. Specifically, they explored the possible moderating role of different types of non-conformity (i.e., general non-conformity, rejection of traditional gender roles, and feminist ideals) in the relationship between sociocultural pressures and internalization. They hypothesized that these non-conformist factors would act as protectors against the development of body dissatisfaction, and later bulimic pathology. The authors interpreted that “based on the sociocultural model [SMB], women should be protected by individual and environmental factors that make them resistant to adopting the culturally valued thin ideal as their own” (Twamley & Davis, 1999, p 469). From Stice’s (1994) original theory, the authors extrapolated that one potential protective factor might be a tendency to disregard social norms or convention (Marlowe & Gergen, 1968). This implied that “women who are generally non-conforming should be less likely to apply society’s rules to themselves, and therefore less likely to internalize the thin-ideal than women who are generally conforming” (Twamley & Davis, 1999, p. 469).

Twamley and Davis (1999) posited that the relationship between sociocultural pressures and thin-ideal internalization would be affected by the degree to which women resisted adopting the thin ideal. They reasoned that this would make general non-conformity, endorsement of feminist values, and rejection of traditional feminine gender roles possible protective factors. They argued that women who are generally non-conforming should also hold non-conformist beliefs with regard to more specific issues, such as appearance and weight ideals. Previous research has demonstrated that
internalization of the thin ideal and adherence to feminine gender roles are positively correlated (Twamley & Davis, 1999). Additionally, women who endorse feminist values may be more likely to reject traditional cultural ideals of feminity, and there is some evidence that a feminist orientation may act as a protective factor against the development of eating pathology (Brown, Cross, & Nelson, 1990). Twamley and Davis (1999) posited that this protection may occur by blocking some internalization of sociocultural pressures to meet the thin ideal.

The authors hypothesized that the relationship between thin-ideal internalization and body dissatisfaction would be moderated by weight and self-esteem, assuming that women may not become dissatisfied with their bodies if they feel they are “thin enough,” whether in reality or because they feel good about themselves in general (Twamley & Davis, 1999). It was additionally proposed that the relation between body dissatisfaction and eating pathology would be affected by perceived control over weight/shape, and self-esteem. Specifically, women experiencing body dissatisfaction would be less likely to develop disordered eating behaviors if they perceived higher levels of control over their weight/shape and had high levels of self-esteem.

In their study, Twamley & Davis (1999) first sought to validate a simplified version of Stice’s (1994) model (see Figure 4) using a non-clinical sample of 249 women aged 18-30. The participants completed a series of questionnaires (Twamley & Davis,

\[\text{Awareness of Sociocultural Thinness Norms} \rightarrow \text{Thin-Ideal Internalization} \rightarrow \text{Body Dissatisfaction} \rightarrow \text{Eating Pathology}\]

*Figure 4:* Twamley and Davis’ (1999) simplified version of Stice’s (1994) Sociocultural Model of Bulimia
General non-conformity was assessed using the Jackson Personality Inventory Conformity Subscale (Jackson, 1976), which measures conventionality and conformity to group norms. The Masculinity-Femininity Scale of the Personality Attributes Questionnaire (PAQ; Spence et al., 1974) was used to measure adherence to feminine gender roles, while feminist attitudes were measured using the Attitudes Toward Women Scale – Short From (Spence, Helmreich, & Stapp, 1974). Family and peer influences, perceived shape, perceived control over weight and shape, locus of control, weight locus of control, and self-esteem were also assessed.

After confirming the viability of the simplified model, Twamley and Davis (1999) worked to extend the SMB by examining the potential moderating role of general non-conformity, adherence to feminine gender roles, and feminist orientation in the relationship between awareness of sociocultural thinness norms and thin-ideal internalization. The moderating influences of the above factors on the simplified model were evaluated through a series of regressions (Twamley & Davis, 1999). Results indicated that high levels of general nonconformity acted as a protective factor against internalization of the thin ideal.

Interestingly, adherence to traditional feminine gender roles, endorsement of feminist attitudes, peer influences, weight, and perceived control over weight/shape did not result in significant moderating effects on the model (Twamley & Davis, 1999). In fact, only general non-conformity moderated the relationship between awareness of thinness norms and internalization of the thin ideal. However, specific types of non-conformity, namely feminism and lesser degrees of adherence to traditional feminine gender roles, did not act as moderating factors, despite previous support. Indeed, Stice et
al. (1994) found that adherence to feminine gender roles might be a *mediating* factor (rather than a moderating factor as described by Twamley and Davis [1999]), fitting into the SMB between sociocultural pressures and internalization.

One possible explanation for this paradoxical set of findings may lie within an analysis of the measures used within this study. They measured feminine gender roles with the Personality Attributes Questionnaire (PAQ). Spence (1983), the co-creator of the PAQ, acknowledged that the PAQ lacks construct validity to accurately assess feminine gender roles. She noted that the PAQ assesses adherence to gender traits (personality traits appropriate for men and women) rather than gender roles. Similarly, Snyder and Hasbrouk (1996) and Levant (1996) both asserted that personality traits are mostly biological and stable, while adherence to gender roles may be modified. Therefore, Twamley and Davis (1999) mostly likely did not measure the construct they set out to measure. Additionally, if researchers are to measure a possible resistance factor that women can actively choose to utilize, it would be more appropriate to measure gender roles rather than gender traits, as gender roles may be modified.

Snyder and Hasbrouk (1996) also found that the PAQ (a measure of gender traits) was not correlated with a popular and well-validated measure of disturbed eating, the Eating Disorder Inventory (Garner, Olmstead, & Polivy, 1983). This suggests that adherence to feminine traits is not predictive of disordered eating, while adherence to traditional feminine gender roles is predictive of the development of body dissatisfaction and disordered eating. A more recently developed measure, the Conformity to Feminist Norms Inventory (CFNI; Mahalik, Morray, Coonerty-Femiano, Ludlow, Slattery, &
Smiler, 2005), may measure gender roles more efficiently, as this measure was specifically designed to measure adherence to non-traditional feminine gender roles.

Twamley and Davis (1999) also chose to measure general non-conformity using the Jackson Personality Inventory Conformity Subscale (Jackson, 1976), and found that non-conformity did moderate the relation of interest. This is another measure of personality traits rather than beliefs or values. While this measure of non-conformity did moderate the relations of interest, measures of personality constructs are thought to be fairly stable and immutable. The focus of this dissertation is to revisit a promising theory and work to clarify the roles of moderators that may be actively changed to alter the effect of sociocultural pressures on internalization of the thin ideal and the effect of internalization on body dissatisfaction. Given this concentration on active and mutable choice in resisting internalization and body dissatisfaction, personality measures may not be especially useful. Additionally, it is unclear how much of the non-conformity measured by the Jackson Personality Inventory Conformity Subscale (Jackson, 1976) is contemplated and self-initiated, rather than an individual’s reaction to their environment. Pelletier, Blanchard, Sharp, Otis, and Amiot’s (2005) measure of global self-determination may be a better choice to determine the origination of non-conformist behavior, allowing for a better understanding of women’s active choice to engage in non-conformist behavior.

Further, the authors used the Attitudes Toward Women Scale (AWS; Spence, Helmreich, & Stapp, 1973) to measure feminist attitudes. This scale was published in 1973 and may not capture current non-conformist attitudes toward women’s roles. Additionally, there is some evidence that the use of the AWS as measure of feminist
commitment was limited by social desirability, statistically over-predicted feminist values, and did not correlate with a behavioral measure of feminist commitment (Goldberg, Katz, & Rappeport, 1979).

To summarize, although Twamley & Davis (1999) examined the roles of non-conformity, gender role adherence, and feminist ideals as protective factors against body dissatisfaction comprehensively, there is room for improvement. Specifically, it seems that they utilized measures that did not accurately capture the factors of interest. Thus, it is appropriate to review other examinations of those factors and their ability to potentially alter the internalization of sociocultural pressures and the development of body dissatisfaction among women.

**General Non-Conformity and Self-Determined Non-Conformity**

The concept of non-conformity is difficult to define and can be complex in its application. It could be argued that non-conformity is simply holding values and behaving differently from the majority culture. However, this definition does not address the specific motivation behind the behaviors and beliefs. This is important because the current investigation is interested in resistance factors that can be consciously chosen, rather than stemming from any other motivation. The complexity of non-conformity is further addressed by McKinley (2004), Paquette & Raine, (2004); Pelletier et al. (2004); and Stice et al., (2000). Pelletier et al. (2004) created a specific study of non-conformity, stating that:

The issue that needs to be addressed is whether nonconformity is adopted as a way to rebel against external pressures (i.e., not truly chosen) or as a personal choice in agreement with one’s inner self (i.e., commitment) (p. 63).
Previous research indicates that non-conformity may not always be self-initiated and may instead be a rebellious reaction in an attempt to regain a sense of autonomy in a situation where the individual feels controlled. In other words, reactionary non-conformity is a response to pressure from others rather than an autonomous and intentional choice. This type of non-conformity may be transient and unsustainable over time (Pelletier et al., 2004). On the other hand, self-determined non-conformist behavior suggests that the behavior is more valued and important, as it is chosen because it is congruent with individuals’ values and goals. The individual experiences a sense of direction and purpose following self-determined decisions and behaviors that is not associated with reactionary non-conformity. Pelletier and colleagues (2004) hypothesized that using a measure of global self-determination (assessing general level of autonomy and intentional actions) might increase the understanding of why some women are less at risk for developing body dissatisfaction and disordered eating symptoms (Pelletier et al., 2004). It may be important to understand the motivation behind non-conformity to the thin ideal to comprehensively address the protective role of non-conformity in the SMB.

Pelletier and colleagues (2004) examined the importance of motivation in a sample of 300 female students aged 17-50. Participants completed questionnaires assessing global self-determination, perceived sociocultural pressures about body image, internalization, and disordered eating symptoms (Pelletier et al., 2004). The Global Motivation Scale (Pelletier et al., 2005) was used to assess global self-determination. Perceived sociocultural pressures were assessed using the Perceived Sociocultural Pressures about Body Image Scales (Stice, Nemeroff, & Shaw, 1996), while
internalization was measured using the Endorsement of Society’s Beliefs Related to Thinness and Obesity scale (Boyer, 1991). The EDI-2 (Garner, 1991) and the BULIT-R (Thelan, Farmer, Wonderlich, & Smith, 1991) were used to assess disordered eating symptoms. Using structural equation modeling, an adapted form of the SMB was tested and found to fit the data. The SMB was tested a second time with the addition of relationships between global self-determination and sociocultural pressures, between global self-determination and internalization, and between global self-determination and bulimic symptoms. The authors hypothesized that global self-determination would be directly and negatively related to sociocultural pressures, internalization, and bulimic symptoms. Results indicated that the addition of global self-determination in the SMB created a better fit between the model and the data (Pelletier et al., 2004). Global self-determination was a significant predictor of perceived sociocultural pressures, internalization, and bulimia, accounting for 5% of the variance in internalization and 4% of the variance in bulimia. In addition, higher levels of global self-determination were negatively associated with perceptions of sociocultural pressures, internalization and bulimia.

This suggests that global self-determination may have an important role to play in explaining why some women may be less influenced by and vulnerable to sociocultural pressures to meet the thin ideal. Women with high levels of global self-determination may ignore sociocultural messages that do not match with personal values. Specifically, women who engage in self-determined non-conformist decisions and behaviors regarding appearance may be less prone to developing body dissatisfaction because they are motivated by internal values and beliefs rather than a reaction to outside pressures.
However, this study also possessed limitations. Pelletier et al. (2004) relied upon self-report measures and a largely Caucasian undergraduate sample. The research may not generalize to a more diverse sample. The data also raised several key questions regarding the demonstrated inverse relationship between self-determined non-conformity and internalization of sociocultural pressures. Namely, do self-determined women tend to feel less sociocultural pressure when society does not match with their values and beliefs? Do they seek out fewer media sources of pressure, and/or have they indicated to people in their lives that it is not all right to pressure them about their bodies? These questions have yet to receive significant empirical attention within the literature on body image. Although global self-determination was not tested as a moderator in this study, it offers intriguing possibilities for further understanding the potential role of self-determined non-conformity as a protective factor within the SMB.

Indeed, there is some additional evidence that non-conformist attitudes may help women to resist the thin ideal. Stice et al. (2000) tested an eating disorder prevention program that targeted arguing against acceptance of the thin ideal. A diverse sample of thirty female undergraduates with disordered eating problems participated in three one-hour sessions during which they were part of a group that argued against the thin-ideal or were part of a control group. Internalization, body dissatisfaction, dieting, negative affect, and bulimic symptoms were assessed before the program began, at the termination of the program, and at a one-month follow-up (Stice et al., 2000). Internalization was measured using the Ideal-Body Stereotype Scale-Revised (IBSS-R; Stice et al., 1996) and the Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ; Heinberg, Thompson, & Stormer, 1995). Body dissatisfaction was assessed with the Body
dissatisfaction Scale (BDS; Stice & Shaw, 1994) and the Body Shape Questionnaire (BSQ; Cooper, Taylor, Cooper, & Fairburn, 1987). The DRES (van Strien et al., 1986) and the Dietary Intent Scale (DIS; Stice, 1998) were used to assess dieting behavior. Negative affect was measured with a composite of three measures: the PANAS-X (Watson & Clark, 1992), the Burns Depression Checklist (BDC; Burns, 1997), and the Burns Anxiety Inventory (BAI; Burns & Eidelson, 1998). The Eating Disorder Examination-Questionnaire (EDE-Q; Fairburn & Cooper, 1993) was used to measure bulimic symptoms.

Surveys indicated that the prevention program led to a decrease in thin-ideal internalization, body dissatisfaction, dieting, negative affect, and bulimic symptoms both at the termination of the program and at a one-month follow-up (Stice et al., 2000). This suggests that women may be able to learn non-conformist attitudes toward the thin ideal and that this type of intervention may reduce disordered eating pathology. Stice et al. (2000) surmised that this prevention program might have worked better than previous studies because it focused on an at-risk group, and did not teach about the dangers of disordered eating, which may accidentally teach maladaptive weight regulation. This study was limited by its small sample size, self-report measures, lack of random assignment to experimental conditions, and passive control condition.

There is also some preliminary qualitative research regarding the role of non-conformist attitudes in women’s attempt to resist the thin ideal. Paquette and Raine (2004) interviewed 46 women (aged 21-61) about the personal and sociocultural contexts of their lives. A qualitative analysis of the data revealed that although some women reported an awareness of thin-ideal internalization and body dissatisfaction, few reported
that they tried to resist sociocultural pressures to conform to the thin ideal. The women who did try to resist reported increased awareness of sociocultural pressures in work, personal, and social contexts, and had often undertaken a long process of reflection on how their lives and environments influenced them, as well as an increased sense of empowerment. One woman stated:

I guess I have a sense that we now have enough information to be able to make our own choices, to what extent we’re going to participate or not. I think enough of us being ourselves and trying to buy less into those images and be more realistic is the best way to reverse that. Because if I put all the blame on the men with power to control my behavior then I’m going to continue to be a victim for a long, long time (p. 1055).

It appears that critical awareness and a choice to stop participating in a harmful sociocultural tradition may give women a sense of control and personal agency to resist sociocultural pressures (Paquette & Raine, 2004). In addition, although this study did not assess feminist identity development, the authors noted that some women seemed to be at earlier stages of becoming more critical of their environments. This suggests that protection from sociocultural pressures may be learned and be part of a developmental process that some women go through as they become more aware of the impact of sociocultural pressures. Despite its small sample size, this study offers some insight toward understanding women’s experience of actively choosing to try to resist the thin ideal and what it might require to do so.

In another look at self-determined non-conformity and resisting body dissatisfaction, McKinley (2004) explored the ways in which fat women resist body dissatisfaction. The author predicted that women who endorsed social change (i.e., non-conformity) would have lower levels of body shame and body dissatisfaction, and greater
psychological well-being. Using a sample of 128 fat women who endorsed fat acceptance from a popular magazine for women with larger figures, objectified body consciousness, body esteem, self-acceptance, and psychological well-being were assessed. Objectified body consciousness was measured using the Objectified Body Consciousness (OBC) Scale (McKinley & Hyde, 1996). The Body Esteem Scale (BES: Franzoi & Shields, 1984) was used to assess body esteem, while self-acceptance was measured using a 3-point Likert scaled version of Erdman’s (1991) qualitative descriptions of body acceptance in fat women. Psychological well-being was assessed by the short version of the Ryff (1989) Scales of Psychological Well-Being.

Correlational analysis indicated that for fat women, personal body ideals were more important in predicting body experience than actual body size (McKinley, 2004). Additionally, people who endorsed advocating for social change in attitudes toward fat people had higher body satisfaction and self-acceptance and lower body shame than those who endorsed personal acceptance of body size only. Endorsing social change was also associated with higher levels of autonomy and personal growth, and smaller weight discrepancy between ideal weight and actual weight. In other words, women who believed that change regarding attitudes toward fat people needed to occur on a larger level rather than only the personal level experienced less body dissatisfaction and greater well-being. McKinley (2004) posited that advocating for social change may improve body esteem and psychological well-being, or the relationship between advocating for social change and the other factors may be reciprocal – those who feel better about themselves may challenge cultural standards. Endorsing non-conformist attitudes about
fat people appears to be related to the way that fat women experience themselves and their bodies.

Non-conformity is a complex factor. The motives for non-conformist attitudes may need to be examined further in future research. The empirical literature supports the notion that non-conformist attitudes about the thin ideal may be learned and may be effective in reducing body dissatisfaction, at least in the short term. Women who attempt to resist the thin ideal appear to go through an internal process to arrive at self-determined non-conformist beliefs and feel empowered by them. It is also possible that it is important for women to endorse not only non-conformist attitudes for themselves, but to advocate for a social overhaul of the thin ideal and even act on these attitudes. As Pelletier et al. (2004) discussed, advocating for social change and acting on one’s beliefs may indicate that non-conformist attitudes are internalized and self-determined and more than transitory reactions. The extant research does not directly suggest support for self-determined non-conformity as a moderator of key paths in the SMB. However, there is indirect evidence suggesting that self-determined non-conformity may potentially have a role as a resistance factor in the SMB, moderating the relationship between sociocultural pressures and internalization, and/or the relationship between internalization and body dissatisfaction.

Rejection of Traditional Feminine Gender Roles

As previously stated, research by Twamley and Davis (1999) demonstrated some evidence that rejecting traditional feminine gender roles did not moderate the sociocultural pressures-internalization and internalization-body dissatisfaction paths in the SMB – it did not act as a protective factor. However, these findings do not converge
with earlier findings about the positive relationship between adherence to feminine gender roles and eating pathology.

In an examination of adherence to traditional feminine gender roles and disordered eating, Paxton and Sculthorpe (1991) hypothesized that women who do not live up to this new ideal woman may be more at risk to develop eating disorders because they are more apt to try to match the thin ideal in an attempt to feel more secure. To do this, women may take on traditional feminine roles to a greater extent. Following this logic, the authors hypothesized that women with eating disorders will have high levels of adherence to traditionally feminine characteristics and low levels of masculine characteristics. Additionally, these women will have been socialized to devalue feminine characteristics. Placing higher value upon traditionally masculine characteristics, they will try to meet a masculine ideal (rather than a feminine ideal) and perceive a great divide between their actual and ideal masculine characteristics. This dissonance between actual and ideal leads to lower self-esteem and well being (Paxton & Sculthorpe, 1991).

Using a sample of 149 Australian women (aged 17-26 years), the authors assessed perceived sex role characteristics and ideal sex role characteristics using the Personal Description Questionnaire (PDQ; Antill, Cunningham, Russell, & Thompson, 1981) and the Women in Society Questionnaire (Australian version of Attitudes Toward Women Scale; Lewis, Grieve, Bell, & Bartlett, 1989). They also measured disordered eating behavior, eating attitudes, drive for thinness, body dissatisfaction, and bulimic symptoms using two measures, the EAT (Garner & Garfinkel, 1979) and the EDI (Garner et al., 1983).
Supporting the hypothesis, this correlational study found that as disordered eating increased, the perception of having positive masculine characteristics (e.g., confident, outspoken, strong, carefree) decreased and perception of having negative feminine characteristics (e.g., dependent, timid, self-critical, weak) increased. Those with more disordered eating traits tended to view themselves unfavorably overall, which may indicate low self-esteem and psychological vulnerability rather than gender role effects (Paxton & Sculthorpe, 1991).

Although this study attempted to improve upon previous studies of adherence to feminine gender roles by using a different gender role measure, the measure used presented some limitations. The Personal Description Questionnaire (Antill et al., 1981) does measure both positive and negative masculine and feminine traits, but it still acts as a personality trait measure, asking participants to describe the ideal. Additionally, it is difficult to know if women develop eating disorders because they are trying to match up with their ideal traits or if disordered eating perpetuates these ideals and contributes to low self-esteem and perceived negative traits overall. It is also important to begin to understand how this information might fit with the SMB.

Stice et al. (1994) created an early study examining feminine gender role adherence as a possible mediating factor in the SMB (please refer to p. 17 for details). Gender role endorsement was assessed using a measure made up of the Attitudes Toward Women Scale (Spence et al., 1973) and the Attitudes Toward Male Roles Scale (Doyle & Moore, 1978). The data indicated that the longer women reported being exposed to thin-ideal media images, the greater their endorsement of feminine gender roles. The results further demonstrated that endorsement of adherence to feminine gender roles had a link
to the SMB (Stice et al., 1994). Adherence to feminine gender roles was indirectly but significantly related to body dissatisfaction through thin-ideal internalization and to the development of disordered eating symptoms through internalization and body dissatisfaction. The results suggest the possibility that feminine gender role adherence may be learned and those who conform less to feminine gender roles may be at less risk for developing body dissatisfaction and bulimic symptoms.

There have been some strong statements within the literature about the nature of gender roles and how they are best measured. Levant (1996) explored the concept of gender roles, stating:

Gender roles [are not] biological or even social givens, but rather psychologically and socially constructed entities that bring certain advantages and disadvantages and, most importantly, can change (p. 259).

Levant (1996) further explains that gender orientation is different from gender ideology. Gender orientation assumes that there are actual differences between men and women (beyond biology) and that men and women must possess different personality traits to meet gender ideals. Gender orientation is best assessed by personality trait measures such as the Bem Sex Role Inventory (BSRI; Bem, 1974, 1981b) and the PAQ (Spence et al., 1974). The BSRI measures femininity by a series of responses to feminine characteristics that are considered socially desirable for women and are stereotypical (Mahalik et al., 2005), culminating in a single score of femininity that represents the femininity level of the individual. Gender ideology assumes that masculinity and femininity are socially constructed gender ideals, and it needs to be measured differently. Following this logic, Thomas and Pleck (1995) found that gender orientation and gender ideology are indeed independent factors that have different correlates. Additionally,
Snyder and Hasbrouk (1996) found that the PAQ did not correlate with the EDI (Garner et al., 1983), a popular measure used to assess disordered eating behavior. This indicates that trait measures of gender roles may not be useful in predicting some negative consequences of traditional feminine gender role socialization, in this case body dissatisfaction and bulimia.

Given the questionable validity of early attempts to assess feminine and masculine gender roles (i.e., BSRI, Bem, 1974, 1981b; PAQ, Spence et al., 1974), an attempt was recently made to develop a more suitable measure (Mahalik et al., 2005). The authors constructed the Conformity to Feminine Norms Inventory (CFNI), which was designed to measure women’s degree of conformity to a number of feminine norms that are common to majority culture in the U.S. They posited that “any inventory that purports to assess femininity should also assess the salience of the different feminine norms for individual women, incorporating the fact that women may construct femininity differently by the features that are salient for them” (p. 418). The framework for the CFNI was created through a series of diverse focus groups, discussions, defining of categories and construction of items. Factor analysis indicated that the CFNI has 8 distinct femininity factors: Nice in Relationships, Thinness, Modesty, Domestic, Care for Children, Romantic Relationship, Sexual Fidelity, and Investment in Appearance.

The CFNI’s psychometric qualities and relationships to existing measures of gender roles, disordered eating, and feminist identities were assessed (Mahalik et al., 2005). Results indicated that the measure had strong internal consistency, differentiated women from men, and has good test-retest reliability. Results indicated that the Bem Sex Role Inventory (Bem, 1974) Femininity Scale was positively and significantly related to
Nice in Relationships, Care for Children, Romantic Relationship, and Sexual Fidelity but did not overlap with the other four factors of the CFNI. The CFNI total score was positively and significantly related to the total EDI (Garner et al. 1983), indicating that conformity to feminine gender norms may be related to the development of eating disordered behavior. The CFNI total score also had a significant positive relationship with EDI subscales (Drive for Thinness, Bulimia, Body Dissatisfaction, and Interoceptive Awareness). CFNI Thinness and Romantic Relationships were also positively related to all subscales of the EDI (Mahalik et al, 2005). Additionally, Modesty, Interpersonal Distrust, and Interoceptive Awareness subscales (non-appearance-related factors of the CFNI) were significantly and positively related to the EDI total scores. This may suggest that women who feel inadequate in their ability to manage other domains of their lives may be more vulnerable to developing disordered eating symptoms.

Overall, the empirical literature regarding gender roles and the SMB indicates that rejection of traditional feminine gender roles may be an important factor in resisting internalization of sociocultural pressures and body dissatisfaction (Stice et al., 1994). The literature suggests that rejection of traditional feminine gender roles may be associated with decreased disordered eating and body dissatisfaction. Although there is no direct evidence for a moderating effect between sociocultural pressures and internalization or between internalization and body dissatisfaction, some evidence does suggest that rejection of traditional feminine gender roles may potentially play a role in moderating these relationships. It may be more useful and appropriate to use measures of traditional feminine gender role adherence that examine socially constructed concepts of gender rather than measures of personality traits that fit with traditional gender roles.
(Snyder & Hasbrouk, 1996). The CFNI appears to be a promising measure of traditional feminine gender role adherence (Mahalik et al., 2005). As noted previously, the CFNI also focuses specifically on feminine gender roles, rather than a more global focus on gender roles. Additionally, higher levels of adherence to feminine gender roles seem to be linked to higher levels of body dissatisfaction, and women may take on more feminine gender roles in an attempt to meet the thin ideal (Paxton & Sculthorpe, 1991). With this in mind, it seems important to examine an extension of the rejection of traditional feminine gender roles: endorsing feminist ideals.

Endorsement of Feminist Ideals

Recall that Twamley & Davis (1999) found that within the SMB, feminism did not moderate the relationship between sociocultural pressures and internalization. However, the authors used the Attitudes Toward Women Scale (AWS; Spence & Helmreich, 1972) to measure feminist attitudes. This scale was published in 1973 and is no longer the measure of choice for measuring feminist attitudes. Previous research has viewed the AWS as being used more appropriately as a measure of blatant sexist attitudes and endorsement of traditional gender roles (Swim & Cohen, 1997; Swim et al., 2005). Goldberg, Katz, and Rappeport (1979) argued that when the AWS was used as measure of feminist commitment, it was limited by social desirability. In an overarching trend, both men and women failed to endorse the sexist statements of traditional gender roles presented by the AWS. Thus the AWS appeared to statistically over-predict feminist values and responses did not correlate with a behavioral measure of feminist commitment. This suggests that the AWS is not particularly useful as a measure of women’s identification with feminist ideals.
Indeed, it may be that Twamley and Davis’ (1999) non-significant findings regarding the moderating potential of feminist ideals in the relationship between sociocultural ideals and internalization can be explained by incorrect measurement of feminist behavior. Snyder & Hasbrouk (1996) used the Feminist Identity Development Scale (FIDS; Bargad & Hyde, 1991) to assess feminist identity development and correlated the FIDS scores with scores on the Eating Disorder Inventory (EDI). Results indicated that higher EDI scores were correlated with early FIDS stages (characterized by less developed feminist identity) and the desire to weigh less, along with choosing an ideal figure that was thinner than the woman’s actual figure. Women who identified with feminist values expressed less dissatisfaction about body weight and overall figure size, less concern about thinness, and fewer disordered eating symptoms. Thus, it seems that a correlation exists between identification with feminist values and reduced internalization and body dissatisfaction. Additionally, Snyder and Hasbrouk (1996) stated that:

Particular feminist values may be singularly related to different symptoms associated with disturbed eating: endorsement of feminist values related to nonsexist roles may be linked to [less] disturbed eating, whereas other feminist values like active commitment might be more closely related to [fewer] body concerns (p. 597).

The role of feminist identity development in the development of disordered eating has been empirically explored both quantitatively and qualitatively (Fingeret & Gleaves, 2004; Rubin et al., 2004). Fingeret and Gleaves (2004) assessed the SMB for potential factors that might protect against internalization, including feminism. They took into account the possibility that only certain stages of feminist identity development may offer protection. The participants were 202 female college students (aged 18-45 years). In order to prevent problems with measuring feminist identity, the authors chose to use
several measures of feminism, including the Feminist Identity Scale (FIS; Rickard, 1987), Feminist Identity Development Scale (FIDS; Bargad & Hyde, 1991), Liberal Feminist Attitude and Ideology Scale (LFAIS; Morgan, 1996), Attitudes Toward Feminism and the Women’s Movement Scale (Fassinger, 1994), and the short form of the Attitudes Toward Women Scale (Spence et al., 1973).

Surprisingly, results indicated that feminist ideology did not moderate the relationship between internalization and body dissatisfaction and thus did not play a role in helping women to resist body dissatisfaction (Fingeret & Gleaves, 2004). This appears to correspond with previous research (Twamley & Davis, 1999) indicating that it is general non-conformity that reduces the impact of sociocultural pressures, not feminist attitudes or beliefs (Fingeret & Gleaves, 2004). The authors concluded that it is possible that feminism is not a protective factor. However, it is important to consider that none of the measures used specifically measures feminist activism or advocacy behaviors. There is some research indicating that advocating for changing the societal thin-ideal appears to have different effects on body dissatisfaction than does personal acceptance (McKinley, 2004). A measure of active feminist behavior may be needed to explore this further. It is also important to note that social advocacy represents the final stage of feminist identity development, where women translate their feminist identities into working toward societal change with the goal of eliminating oppression (Downing & Roush, 1985). Although one might expect that social advocacy could be satisfactorily captured by the last stage described by the Feminist Identity Composite (FIC; Fischer et al., 2000), examination of the measure revealed that there is no direct questioning of current and active feminist social advocacy behavior.
Measures of involvement in feminist activities and self-identification as a feminist may be more useful in assessing social advocacy behavior and identification as a feminist. Szymanski (2004) developed two measures to address these issues. The first, the Involvement in Feminist Activities Scale (IFAS; Szymanski, 2004; see Appendix F) asks women to indicate the extent of their involvement in 17 areas of feminist activity and has demonstrated acceptable reliability and validity. The second, the Self-Identification as a Feminist scale (SIF; Szymanski, 2004; see Appendix I) asks women to indicate the extent to which they endorse a feminist identity publicly and privately, acknowledging that public and private identification are not always the same. The SIF has also demonstrated acceptable reliability and validity. These two measures may provide viable alternatives to traditional feminist identity development scales (e.g., FIC; Fisher et al., 2000) for measuring internalized feminist ideals through social advocacy.

Peterson, Tantleff-Dunn, and Bedwell (2006) examined the potential role of endorsing feminist ideology as a resistance factor against internalization or body dissatisfaction by teaching women about feminism and feminist theories of body image disturbance. They hypothesized that this education would cause an increase in feminist identity among participants and decreases body image dissatisfaction (Peterson et al., 2006). Two hundred ninety-seven undergraduate women completed the questionnaire at Time 1 and 160 of the original group also completed the questionnaire at Time 2, 2 weeks later. At Time 1, participants completed the FIC (Fischer et al., 2000) to assess feminist identity, the Physical Appearance State and Trait Anxiety (PASTAS; Reed, Thompson, Brannich, & Sacco, 1991), the Appearance Schemas Inventory (ASI; Cash & Labarge, 1996), and the Visual Analogue Scales (VAS; Stormer, 1999). At Time 2, the
participants were assigned to a feminist education, psychoeducational, or control group (Peterson et al., 2006). The intervention groups involved listening to a 15 minute tape with accompanying packet of images. The feminist education group received information on feminist theories of body image and eating disturbance and included definitions and explanations of feminism, feminist theories, and research findings, along with visuals of the women’s movement and paintings of realistic bodies. Following the intervention, all participants completed the same measures given at Time 1.

Results indicated that participants in the feminist education group experienced significant increases in self-identification as a feminist and in satisfaction with physical appearance (Peterson et al., 2006). There was support for a decrease in appearance-related anxiety as FIC Passive Acceptance scores decreased. Peterson et al. (2006) hypothesized that identifying more strongly as a feminist may lead to prevention of or decreases in body image disturbance. Although the feminist education intervention did not lead to great changes as measured by the FIC, identifying as a feminist may be a salient reflection of feminist identity. It is also interesting to note that the experimental effects occurred after only a small-scale intervention, suggesting that larger-scale interventions might yield increased benefits to participants.

Myers and Crowther (2007) studied the possibility of feminist beliefs as a moderating factor in the relationship between sociocultural pressures and internalization. However, they separated sociocultural pressures into the two subgroups suggested by Stice (1994): social influence and media awareness. They hypothesized that feminist beliefs would moderate the relationship between sociocultural pressures and internalization. One hundred ninety-five young female participants completed the
demographic questionnaire, Family and Friends Scale (FFS; Karazsia, 2005; to assess familial and peer influence on weight and shape), the Sociocultural Attitudes Towards Appearance Questionnaire-3 (SATAQ-3; Thompson et al., 2004), the Feminist Perspectives Scale (FPS; Henley, Meng, O’Brien, McCarthy, & Sockloskie, 1998), the Self-Objectification Questionnaire (SOQ; Noll & Fredrickson, 1998), and the Body Shape Questionnaire (BSQ; Cooper, Taylor, Cooper, & Fairburn, 1987).

Results of structural equation modeling and multiple regression analysis indicated that feminist beliefs moderate the relationship between media awareness and internalization, but do moderate the relationship between social influence and internalization (Myers & Crowther, 2007). This suggests that endorsing feminist beliefs may be a protective factor against media influences, but do little to block the harmful effects of pressure from family and friends to be thin.

The role of feminist ideals in internalization and body dissatisfaction was again highlighted by a qualitative study of feminist women’s body consciousness (Rubin et al., 2004). Twenty-five self-identified “feminist” or “womanist” women from a diverse population participated in one-session (1 hour-1.5 hour) focus group discussions. The discussions concentrated on questions about bodily awareness, effects of feminism on awareness, influence of ethnic background and sexual orientation on appearance and feelings about body, and resistance strategies. The focus groups were conducted until the research reached “saturation” – no new themes emerged from discussions. The data were analyzed for emergent themes and were found to be credible and dependable (Rubin et al., 2004).
The data suggested that body dissatisfaction and cultural messages about appearance are constantly being negotiated, rather than passively received or radically resisted. “Feminism provided participants with an alternative way to interpret cultural ideologies of women’s bodies, and offered specific strategies to resist these ideologies on a personal and societal level” (Rubin et al., 2004; p. 30). Feminist resistance fell into 4 categories: celebration of bodily diversity, awareness as resistance (seen as the first step), limits of resistance (cognitive strategies to change thoughts about beauty ideals), and emancipatory resistance (strategies to reclaim body from the objectifying gaze, e.g., athletics, taking up space, moving with confidence, and redefining beauty).

Findings also indicated that the participants reported often feeling conflicted between their feminist beliefs about the harm caused by adhering to the thin ideal and their feelings about their own appearance and ideals (Rubin et al., 2004). Further, the women reported that using cognitive strategies might distance them from the thin ideal but did little to change an emotionally conditioned positive response to the thin ideal – it still appealed to them. They also reported that despite their critical awareness of sociocultural pressures to meet the thin ideal and attempts to use cognitive resistance strategies, they still felt dissatisfied with their bodies. In addition, they felt guilty about not measuring up to their feminist ideals by failing to reject the thin ideal (Rubin et al., 2004)!

There is limited empirical literature regarding feminist ideals as a moderating factor in the SMB framework, with mixed results. There is some evidence that the effects of feminist social activism and behavior on internalization of sociocultural pressures and the development of body dissatisfaction have not been properly examined
as potential moderators of the relations of interest within the SMB. It also seems reasonable that the later stages of feminism may indicate the presence of self-determined non-conformity and there should be some relation between the two factors (e.g., endorsement of the later stages of feminist identity development positively related to higher levels self-determined non-conformity. These relationships have not been found.

Conclusions and Recommendations

There is some empirical evidence that suggests that general non-conformity is a promising resistance factor against the internalization of the thin ideal and the development of body dissatisfaction (e.g., Twamley & Davis, 1999; Stice et al., 2000). However, there have been methodological problems with measuring non-conformity. Specifically, it has been suggested that it may be important to assess the motivation behind non-conformist decisions and behavior (Pelletier et al., 2004). Pelletier and colleagues suggested that a certain level of maturity in identity must be reached before non-conformist decisions and behavior are truly the result of internalized personal beliefs and values. This fits with the ideas gleaned from qualitative data regarding women who attempt to engage in non-conformist thinking and acting against the thin ideal. Similar to this assertion, Paquette and Raine (2004) found that women who attempted to resist conforming to the thin ideal reported that they underwent a process of reflection and growing awareness of sociocultural pressures before arriving at non-conformist beliefs and behaviors. Additionally, fat women who endorsed not only personal acceptance of a fat body shape, but also advocated for social change had higher body satisfaction and psychological well-being (McKinley, 2004). These two qualitative studies suggested that a level of identity development (feminist or otherwise) must be reached before non-
conformity becomes an internalized part of one’s identity and acts as a protective factor. An example is the final phase of feminist identity development, Active Commitment, where a feminist identity is internalized and the woman works toward social change to end oppressive forces (Downing & Roush, 1985). However, there is some question as to whether the behavioral aspect of Active Commitment is satisfactorily assessed by the FIC and other popular feminist identity measures.

The research regarding rejection of traditional feminine gender roles as a resistance factor against internalization and body dissatisfaction has been mixed. Although there is some evidence that rejection of traditional feminine gender roles is not a protective factor (Twamley & Davis, 1999), there were also problems with refining the measurement of this factor. It has been suggested by several researchers (e.g., Levant, 1996; Snyder & Hasbrouk, 1996) that gender roles cannot be assessed with trait measures, and when this occurs, it appears that “gender roles” are not significantly related to body dissatisfaction and disordered eating. However, when gender roles are assessed as modifiable and socially constructed entities, higher levels of adherence to feminine gender roles are related to increased body dissatisfaction and disordered eating (Paxton & Sculthorpe, 1991; Snyder & Hasbrouk, 1996). Mahalik and colleagues (2005) recently developed a psychometrically sound measure of feminine gender roles with the CFNI, which may prove useful for investigating women’s adherence to non-traditional feminine gender roles as a protective factor in the context of the SMB. The CFNI also assesses how salient fitting into gender norms is for the individual.

The research surrounding the role of feminist ideals as a resistance factor against internalization and body dissatisfaction has also proven complex. There is some
evidence that feminism is not a resistance factor (Twamley & Davis, 1999; Fingeret & Gleaves, 2004) or only works to some degree (Rubin et al., 2004; Myers & Crowther, 2007). However, it has been noted that women who advocate for a societal change against the thin ideal appear to experience some protective value (McKinley, 2004). Mahalik and colleagues (2005) found that the CFNI’s Investment in Appearance factor was negatively related to women’s strong commitment to positive social change that addresses societal inequities. Also, Fingeret and Gleaves (2004) noted that their research only addressed feminist attitudes, not feminist behavior. It is possible that feminist ideals do not provide protection until a woman has demonstrated a commitment to feminist activities.

The research evidence to date has linked these three factors with outcomes at various places in the SMB construct sequence, and the direction of the relations, when demonstrated, has been consistent with the idea that these factors may serve as resistance factors (e.g., lower conformity with less internalization/body dissatisfaction). Nevertheless, few direct tests of these factors as moderators of the paths of interest have been conducted; therefore, it is not completely clear how these potential resistance factors operate within the SMB. The purpose of this dissertation is to extend the SMB research base in some important ways. Specifically, I plan to directly test the posited moderating (and thus resistance) effects of self-determined non-conformity, endorsement of feminist ideals, and rejection of traditional feminine gender roles on two key SMB paths: the sociocultural pressures-internalization relation and the internalization-body dissatisfaction relation.
Research Question and Hypotheses

The current study seeks to address the following broad questions:

1) Do self-determined non-conformity, feminist ideals, and rejection of traditional feminine gender roles act as resistance factors by moderating the relation between sociocultural pressures and internalization within the SMB?

2.) Do the proposed moderators also moderate the relation between internalization and body dissatisfaction within the SMB?

Hypotheses related to the potential moderating roles of these three factors within the structure of the SMB were formulated through an exploration of the relevant literature. These hypotheses will reflect concepts and findings supported by the previous literature in these areas.

Relation Between Perceived Sociocultural Pressures and Internalization

Hypothesis 1: Higher levels of self-determined non-conformity moderate the relationship between perceived sociocultural pressures and internalization by decreasing the impact of perceived sociocultural pressures on internalization of the thin ideal (McKinley, 2004; Paquette & Raine, 2004; Pelletier et al., 2004; Stice et al., 2000).

Hypothesis 2: Greater rejection of traditional feminine gender roles moderates the relationship between perceived sociocultural pressures and internalization by decreasing the impact of perceived sociocultural pressures on internalization of the thin ideal (Paxton & Sculthorpe, 1991; Snyder & Hasbrouk, 1996; Stice et al., 1994).

Hypothesis 3: Greater endorsement of feminist ideals moderates the relationship between perceived sociocultural pressures and internalization by decreasing the impact of...
perceived sociocultural pressures on internalization of the thin ideal (Fingeret & Gleaves, 2004; McKinley, 2004; Rubin et al., 2004).

Hypothesis 4: Level of adherence to traditional feminine gender roles will mediate the relationship between perceived sociocultural pressures and internalization by explaining a part of the influence of perceived sociocultural pressures on internalization. This possible mediator will be examined following Stice’s (1994) findings that gender roles were found to mediate this relationship within the SMB; thus gender roles will be analyzed as both a possible mediating factor and a possible moderating factor (see Hypothesis 2) of the relationship between sociocultural pressures and internalization.

Relation Between Internalization and Body Dissatisfaction

Hypothesis 5: Higher levels of self-determined non-conformity moderate the relationship between internalization and body dissatisfaction by decreasing the impact of internalization of the thin ideal on body dissatisfaction (McKinley, 2004; Paquette & Raine, 2004; Pelletier et al., 2004; Stice et al., 2000).

Hypothesis 6: Greater rejection of traditional feminine gender roles moderates the relationship between internalization and body dissatisfaction by decreasing the impact of internalization of the thin ideal on body dissatisfaction (Paxton & Sculthorpe; Snyder & Hasbrouk, 1996; Stice et al., 1994).

Hypothesis 7: Greater endorsement of feminist ideals moderates the relationship between internalization and body dissatisfaction by decreasing the impact of internalization of the thin ideal on body dissatisfaction (Fingeret & Gleaves, 2004; McKinley, 2004; Rubin et al., 2004).
CHAPTER III
METHODOLOGY

Participants

The sample was comprised of 251 women aged 19-84 (M = 38.07, SD = 13.83) who speak English as their first language, were born in the United States, and have lived in the United States their entire lives. These limitations are necessary to ensure that participants have had relatively equal opportunity to be exposed to sociocultural pressures in the United States. Women were recruited for the study using a variety of methods in order to produce the sufficiently large, heterogeneous sample. Women’s organizations, businesses, listserves, websites, and friendship/professional networks were provided with information about the study and how to participate. Multiple recruitment methods such as these have been recommended to reduce bias associated with reliance upon a single recruitment strategy (Epstein & Klinkenberg, 2002; Murray & Fisher, 2002).

Participants were from 32 states. The largest percentages came from Ohio (36.19%), New York (10.1%), Indiana (10.1%), Massachusetts (5.1%), California (4.3%), and New Jersey (3.9%), accounting for 70.1% of participants. See Table 1 for additional descriptive data on the demographic variables of this sample. The majority of the sample was Caucasian (94.2%), with Latina (4.6%), African American (2.3%), Asian
American (.8%), and Other (.8%). The sample was generally very highly educated with 34.6% having completed a master’s degree, followed by a completed doctoral degree (26.5%), some graduate school (11.3%), some college (10.5%), completed four year degree (10.1%), completed 2 year degree (4.7%), completed post high school trade school certificate (1.6%), and completed high school (.8%). Socioeconomic status by self report was as follows: middle class (47.5%), upper middle class (29.6%), working class (14.0%), lower class (3.5%), prefer not to answer (3.5%), and upper class (1.9%).

The majority of participants reported that they identified their sexual orientation as preferring the opposite sex (68.1%), with 13.6% mostly preferring the opposite sex, 6.2% preferring the same sex, 6.2% mostly preferring the same sex, 5.4% bisexual, and .4% unsure. The majority of participants fell into the healthy (18.5-24.99) and overweight (25-29.99) BMI ranges (42.80% and 27.63%, respectively), with 24.5% falling into the obese (>30) BMI range, and 5.06% falling into the underweight (<18.5) BMI range.

The sample was primarily non-clinical with regard to eating disorder diagnosis (7.0%) and treatment (2.3% attended therapy for disordered eating before the age of 18, 5.8% attended therapy for disordered eating after age 18, and 1.6% had undergone inpatient treatment for disordered eating). However, a high percentage of participants had attended therapy in general (24.9% before age 18, and 61.5% after age 18; 7.8% had used inpatient psychiatric services and 7.8% had used crisis services), and a number of participants reported engaging in disordered eating behavior (31.9% engaged in restricted eating, 19.1% engaged in excessive exercise, 19.1% engaged in binge eating, 8.2% had used laxatives for weight loss, and 7.4% had purged).
Instruments

The following section will describe the instruments chosen to operationalize the factors of interest in this study and provide information regarding their validity and reliability.

Sociocultural Pressures

The Perceived Sociocultural Pressure Scale (PSPS; Stice et al., 1996b; see Appendix A) is a 10-item measure that is used to assess the degree of perceived sociocultural pressure to meet the thin ideal from family friends, dating partners and the media. Participants choose one of three responses: 1 (no pressure); 3 (some pressure); and 5 (a lot of pressure). Examples of two items are, “I’ve felt pressure from my friends to lose weight,” and “I’ve felt pressure from the media (e.g., TV, magazines) to lose weight.”

Item responses of the PSPS (Stice et al., 1996b) are averaged, with higher scores representing greater perceived pressure to be thin. The PSPS has been used effectively with several other studies of the SMB based on Stice’s (1994) theory. The PSPS takes approximately 5 minutes to complete.

The internal consistency of the PSPS is .87 within a sample of 437 high school and college students (Stice et al., 1996b). The PSPS demonstrated construct validity by correlating positively and significantly to retrospective reports of parental pressure to lose weight during childhood. Test-retest reliability for the PSPS has been demonstrated over a two-week period ($r = .93$), with reliable results from both high school and college samples of Caucasian women (Stice et al., 1996b). In this dissertation, PSPS scores ranged from $1 – 4.5$ out of a possible range of 1-5. The mean score ($M = 2.32, SD = .74$)
and reliability score ($\alpha = .82$) were comparable to those found by Tylka (2006; $M = 2.30$) and Stice et al. (1996b; $\alpha = .87$)

Internalization

The Internalization-General scale of the Sociocultural Attitudes Towards Appearance Scale – 3 (SATAQ-3; Thompson, van den Berg, Roerrig, Guarda, & Heinberg, 2004; see Appendix B) consists of 9 items that are used to assess the degree to which the participant has internalized the thin ideal body from sociocultural pressures. Participants choose one of five responses: 1 (Definitely Disagree); 2 (Mostly Disagree); 3 (Neither Agree nor Disagree); 4 (Mostly Agree); and 5 (Definitely Agree). Two examples of the items are, “I compare my body to the bodies of people who are on TV,” and “I wish I looked like the models in music videos.” Item responses of the SATAQ-3 (Thompson et al., 2004) are averaged, with higher scores representing greater internalization.

The SATAQ-3 was chosen for use in this study over Stice’s Ideal Body Internalization Scale – Revised (IBIS-R; Stice, 2001; Stice & Agras, 1998; Stice & Bearman, 2001). Although the IBIS-R has been used effectively in several other studies that use the SMB as a framework, Thompson et al. (2004) demonstrated that the SATAQ-3 and the IBIS-R capture two unique dimensions of sociocultural influence. According to Thompson et al., while the IBIS-R only taps into awareness of the thin ideal, the SATAQ-3 also reflects internalization of the thin ideal and awareness of media influences.

In addition, Thompson et al. (2004) explored the convergent validity of the SATAQ-3 with subscales of the Eating Disorder Inventory (EDI; Garner, Olmstead, &
Polivy, 1983), including the Drive for Thinness scale (EDI-DT) and Body Dissatisfaction scale (EDI-BD). Results indicated that the SATAQ-3 had excellent convergent validity with the Internalization-General subscale of the EDI. This suggests that higher levels of internalization as measured by the SATAQ-3 predicted higher levels of disordered eating. Indeed, eating-disordered participants scored significantly higher on the Internalization General subscale of the SATAQ-3 than did a control group (Thompson et al., 2004). In this dissertation, SATAQ-3 scores ranged from 1 – 5 out of a possible range of 1-5. The mean score ($M = 2.84, SD = 1.15$) and reliability score ($\alpha = .96$) were comparable to those found by Calogero et al. (2004; $M = 3.19$) and Thompson et al. (2004; $\alpha = .92$).

**Body Dissatisfaction**

The Body Dissatisfaction Scale of the Eating Disorder Inventory - 3 (EDI-3-BD; Garner, 2004; see Appendix C) is a 10-item subscale that is used to assess the amount of dissatisfaction with the overall shape and size of body regions that many women are sensitive about (e.g., hips, thighs, etc.). Participants are asked to choose one of five responses to indicate how often the items describe them (*Never, Rarely, Sometimes, Usually, Always*). Two examples of the items are, “I think that my stomach is just the right size,” and “I feel satisfied with the shape of my body.”

Item responses of the EDI-3-BD (Garner, 2004) are summed, with higher scores representing less body dissatisfaction. The EDI-3-BD takes approximately 5 minutes to complete. The internal consistency of the EDI-3-BD ranged from .87-.97 in a sample of adolescents and adults (Garner, 2004). The EDI-3-BD demonstrated construct validity by correlating positively and significantly with the body dissatisfaction scales of the
EAT-26 and the BULIT-R (Thelan, Farmer, Wonderlich, & Smith, 1991). Test-retest reliability for the EDI-3-BD has been demonstrated over a one-week period \((r = .95)\) in a sample of eating disordered women aged 15-55 years. In this dissertation, EDI-3-BD scores ranged from 11-50 out of a possible range of 10-50. The mean score \((M = 27.19, SD = 8.96)\) and reliability score \((\alpha = .91)\) were comparable to those found by Garner (2004; \(M = 19.95; \alpha = .87-.97\)).

*Self-Determined Non-Conformity*

The Global Motivation Scale (GMS; Pelletier, Sharp, Blanchard, Levesque, Vallerand, & Guay, 2005; see Appendix D) is an 18-item measure that is used to assess whether participants’ action are fueled by intrinsic or extrinsic motivations. Participants rate their agreement with statements indicating the reasons for their behavior in general on a Likert scale ranging from 1 (*not agree at all*) to 4 (*completely agree*). The items ask participants about their general behavioral motivation. Two examples of the items are, “because they represent who I am,” and “because I would feel guilty for not doing them.”

The GMS (Pelletier et al., 2005) supports a 6-factor structure: Intrinsic Motivation, Integrated Regulation, Identified Regulation, Introjected Regulation, External Regulation, and Amotivation. In the present study, scores for each factor were combined by weighting the constructs according to their placement on the self-determination continuum as follows to obtain a global self-determination index: \(GSD = 3(IM) + 2(INTEG) + (IDEN) – (INTRO) – 2(ER) – 3(AMO)\). Higher scores indicate higher levels of self-determination (i.e., higher levels of intrinsic motivation to act in certain ways; Pelletier et al., 2005). The GMS takes approximately 10 minutes to complete.
The internal consistency of the GMS total scores was .95 in a sample of 334 Canadian and 269 American male and female college students (Pelletier et al., 2005). The GMS demonstrated construct validity by correlating positively and significantly with related measures of needs fulfillment and motivation (Pelletier et al., 2005). Test-retest reliability for the GMS has been demonstrated over a six-week period ($r = .72$) in a sample of 180 female and 55 male Canadian adults (Sharp, Pelletier, Blanchard, & Levesque, 2003). In this dissertation, GMS scores ranged from -27 – 91 out of a possible range of -108 - 108. The mean score ($M = 33.54$, $SD = 22.11$) was comparable to that found by Pelletier et al. (2005; $M = 29.03$), although the reliability score ($\alpha = .78$) was not as impressive as that reported by Pelletier et al. ($\alpha = .95$).

**Personality**

The International Personality Item Pool (IPIP; Goldberg, 1999; see Appendix E) is a 50-item measure that is used to measure personality based upon a five-factor structure. This measure was used to provide additional evidence of discriminant validity of the GMS (Pelletier et al., 2005), by demonstrating that motivation as measured by GMS scores is different from personality. Participants choose one of five responses indicating their level of agreement with the items: 1 (*Very Inaccurate*), 2 (*Moderately Inaccurate*), 3 (*Neither Inaccurate nor Accurate*), 4 (*Moderately Accurate*), and 5 (*Very Accurate*). Examples of two of the items are: “(I) am the life of the party,” and “(I) feel little concern for others.” Scores for each of the five scales are obtained by assigning each response a value of 1 to 5 (and 5 to 1 for reverse scored items) and adding the values to obtain total scale scores (Goldberg, 1999). The IPIP (Goldberg, 1999) measures 5 distinct factors: Extraversion, Agreeableness, Conscientiousness, Emotional Stability,
and Intellect. It takes 5-8 minutes to complete. For the purpose of this study, Intellect (i.e., Openness) will be measured. Acceptable test-retest reliability for this scale has been demonstrated \((r = .84; \text{Goldberg}, 1999)\). In this dissertation, IPIP scores ranged from 27–50 out of a possible range of 10-50. The mean score \((M = 40.89, SD = 5.59)\) and reliability score \((\alpha = .80)\) were comparable to those found by Levens, Decorte, and Schollaert (2008; \(M = 35.01)\) and Goldberg (1999; \(\alpha = .84)\).

**Feminine Gender Role Adherence/Rejection of Traditional Feminine Gender Roles**

The Conformity to Feminine Norms Inventory (CFNI; Mahalik et al., 2005; see Sample Inventory in Appendix F) is an 84-item instrument that is used to measure the degree to which participants conform to an array of feminine norms found in the dominant United States culture. Participants rate their agreement with statements assessing attitudes, beliefs, and behaviors associated with traditional and non-traditional feminine gender roles. The inventory is rated on a 4 or 5-point scale ranging from SD (strongly disagree) to SA (strongly agree). Participants are asked to indicate how much they personally agree or disagree with each statement presented. Two examples of the items are, “I would be happier if I were thinner,” and “Taking care of children is extremely fulfilling.” Higher scores on the CFNI indicate higher levels of adherence to traditional feminine gender roles.

For the purposes of this study, the CFNI was rated on a 4-pt. scale that is scored from 0-3. Scores ranged from 65-216 out of a possible range of 0-252. The mean score was 153.20 \((SD = 22.31)\) and is comparable to mean scores found by Mahalik et al. \((2005; M = 162.73)\). Demonstrated internal consistency was excellent \((\alpha = .91)\) and was comparable to that of Mahalik et al. \((2005; \alpha = .88)\).
The CFNI (Mahalik et al., 2005) assesses eight distinct factors: Nice in Relationships, Modesty, Domestic, Thinness, Care for Children, Romantic Relationship, Sexual Fidelity, and Invest in Appearance. The CFNI takes approximately 10-15 minutes to complete. Mahalik et al. (2005) demonstrated a 2-3 week test-retest reliability estimate of .94 for the CFNI total score and estimates from .83 to .94 for the individual subscales. The internal consistency of the total CFNI in a sample of 733 women and 98 men was .88, with subscale alphas ranging from .77 to .92 (Mahalik et al., 2005). Mahalik et al. also found that the CFNI correlated positively and moderately with the BSRI Femininity Scale, thus supporting the idea that the socially desirable feminine characteristics described by the BSRI are related to, but distinct from, the feminine ideologies described by the CFNI. The CFNI was also compared with the FIDS (Bargad & Hyde, 1991). Results indicated that the CFNI was significantly and negatively related to the FIDS stages that reflect increasing levels of feminist identity (Mahalik et al., 2005). Specifically, Modesty was negatively related the FIDS Embeddedness-Emanation stage, and Investment in Appearance was negatively related to the FIDS Active Commitment stage. Additionally, the CFNI was compared with the EDI-2 (Garner, 1991). Results indicated that the CFNI total score was significantly and positively related to the EDI-2 total score, suggesting that conformity to the dominant culture’s feminine norms is positively related to the development of disordered eating (Mahalik et al., 2005).

**Endorsing Feminist Ideals: Involvement in Feminist Activities**

The Involvement in Feminist Activities Scale (IFAS; Szymanski, 2004; see Appendix G) is a 17-item measure that is used to assess a woman’s involvement in feminist activities. Participants choose one of seven responses indicating their level of
agreement with the items: 1 (Very Untrue), 2 (Untrue), 3 (Somewhat Untrue), 4 (Neither True nor Untrue), 5 (Somewhat True), 6 (True), 7 (Very True). Examples of two of the items are, “I am involved in research, writing, and/or speaking about feminist/women’s issues,” and “I vote for political candidates that support feminist/women’s campaigns.” Total scores for the IFAS (Szymanski, 2004) are created by adding the item scores, with higher total scores indicating more involvement in feminist activities. The IFAS takes only a few minutes to complete.

The internal consistency of the IFAS was .94 in a diverse sample of 227 females with a large number of lesbian participants (Szymanski, 2004). Szymanski (2004) also found that the IFAS total score was significantly and positively related to the Revelation, Embeddedness-Emanation, and Active Commitment stages of feminist identity, as measured by the Feminist Identity Composite (Fischer et al., 2000), and negatively related to Passive Acceptance. The IFAS was not significantly related to the FIC Synthesis scale or a measure social desirability. In this dissertation, IFAS scores ranged from 17 – 119 out of a possible range of 17-119. The mean score (M = 59.18, SD = 29.78) was significantly lower than that found by Szymanski (2004, M = 73.10), but the reliability estimate ($\alpha = .97$) was excellent and comparable to Szymanski’s (2004) estimate ($\alpha = .94$)

**Endorsing Feminist Ideals: Self-Identification as a Feminist**

The Self-Identification as a Feminist measure (SIF; Szymanski, 2004; see Appendix J) is a 4-item measure that is used to assess the extent to which a woman identifies as a feminist. Participants choose one of five responses indicating their level of agreement with the items: 1 (Strongly Disagree), 2 (Disagree), 3 (Neither Agree nor
Disagree), 4 (Agree), and 5 (Strongly Agree). Total scores are obtained by adding the item scores, with higher total scores indicating higher levels of self-identification as a feminist.

The internal consistency of the SIF was .93 in a diverse sample of 227 females (Szymanski, 2004). Convergent validity of the SIF was supported by significant positive associations of the SIF with the IFAS (Szymanski, 2004) and the Revelation, Embeddedness-Emanation, and Active Commitment scales of the FIC (Fischer et al., 2000). The SIF was not significantly related to the FIC Synthesis scale or a measure of social desirability. In this dissertation, SIF scores ranged from 4 - 20 out of a possible range of 4-20. The mean score (M = 14.12 SD = 4.80) and reliability estimate (α = .94) were comparable to those found by Szymanski (2004; M =16.20; α = .93).

**Socially Desirable Responding**

Because inquiries regarding body image or assessment of mental health may motivate individuals to create an overly favorable impression, socially desirable responding will be assessed with the impression management subscale of the Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1984; see Appendix H). This subscale measures individual differences in conscious over-reporting of desirable behaviors and under-reporting of undesirable behaviors. Participants are asked to rate agreement with 20 items on either a 5-or 7-point scale (1 = Strongly Disagree, 5/7 = Strongly Agree). For the purposes of this study, a 5-point scale was used to complement the 5-point scales used for the majority of the assessment instruments in this study. Examples of some of the items are “I never cover up my mistakes,” and “I always obey laws, even if I’m unlikely to get caught.” Scores are calculated by adding scores across
the 20 items. A higher score indicates a greater tendency to manage others’ impressions of oneself.

The BIDR Impression Management scale demonstrated good evidence of construct validity and reliability in a sample of 83 students (Paulhus, 1984). Internal consistencies ranged from .75 to .80 for dichotomous data, and from .80-.86 for continuous data. Test-retest reliability over a 5-week interval was .77, based on dichotomous scoring. Results from a sample of 230 undergraduates demonstrated that the Impression Management scale was strongly correlated with the Marlowe-Crowne social desirability scale (Crowne & Marlowe, 1960) and Edward’s Self-Deceptive Enhancement scale (Edwards, 1957). In this dissertation, BIDR-IM scores ranged from 34-89 out of a possible range of 20-100. The mean score (M = 3.04, SD = 0.50) and reliability estimate (α = .77) were comparable to those found by Helms, McNeill, Holden, and Jackson (2008; M = 3.45) and Paulhus (1984; α = .80-.86).

Demographic Questionnaire and BMI

In addition to the above measures, all participants were provided with a demographic questionnaire that asked them to indicate their age, sex, sexual identity, race/ethnicity, occupation, relationship status, socioeconomic status, highest level of education, state of residency, whether English is their first language, and if they were born and raised in the United States (to account for length of exposure to sociocultural pressures; See Appendix I). Participants were also asked to indicate their height and weight, and BMI was calculated from these numbers for each participant (CDC, 2006). Participants were also asked about general therapy attendance, disordered eating treatment, and disordered eating behaviors to determine the clinical nature of the sample.
Following the completion of all measures, participants were asked how they heard about the study and if they have previously participated in the study (Appendix K).

Data Collection

A survey was administered on the Internet via a secured web site. The Internet was chosen as the primary method for data collection for several reasons. On-line research has become an important tool in gathering high-quality psychological data in recent years (Barak & English, 2002; Birnbaum, 2000; Gosling, Vazire, Srivastava, & John, 2004), providing greater confidentiality/anonymity as well as increased accessibility over traditional paper-and-pencil research (Barak & English, 2002; Bricker, Willoughby, & Malik, 2005; Reips, 2000). Internet research often provides a more diverse and representative sample of individuals than traditional research methods (Birnbaum, 2000; Epstein, Klinkenberg, Wiley, & McKinley, 2001; Gosling et al., 2004; Murray & Fisher, 2002; Skitka & Sargis, 2006), increasing the generalizability of findings from such studies (Birnbaum & Mellers, 1989).

Specific contact people were designated for each group asked to participate. These people received an email containing a statement of all human participants’ rights and the fact that this study received approval of the Institutional Review Board (IRB) at The University of Akron. The email also contained a link to the survey. Each person was asked to participate (if appropriate for the study) and to forward the email to other group members and/or women who might be willing to take part in the study. In order to participate, participants simply had to click on the link in the e-mail that immediately directed them to the online survey. The survey was administered on the Internet via a secured web site through Survey Monkey’s server. After reading the informed consent
page describing the study, as well as its risks and benefits, participants were provided with the author’s e-mail address in case they had additional questions. They were informed of the criteria for participation in the study, and that their participation in the study was voluntary (see Appendix L). Participants were assured that their responses to the survey were anonymous and that no information would be collected about them or the computer used to complete the survey. They were asked to click a link to confirm that they are over the age of 18 and consent to participate in the study. The participants were asked to complete the Demographic Questionnaire first in order to determine if they met the requirements for study participation (Appendix H). Next, participants completed the PSPS, SATAQ-3, EDI-3, GMS, IPIP, CFNI, BIDR, IFAS, and SIF, in that order. After completing the survey, participants were asked to read the Debriefing page at the end of the survey explaining the general research questions and goals of the study (see Appendix M). On this page, they were provided space to provide their comments/feedback on the study, and were provided with contact information for further questions or feedback, and were asked if they wish to receive a summary of the results of the study via e-mail. Participants were free to terminate the survey at any time. The survey was estimated to take approximately 20 minutes for participants to complete. Participants were encouraged to share the web address for the study with individuals or groups and asked not reveal the purpose of the study to potential participants.

Data Analysis

The following explanation will explain how the data was cleaned and analyzed, along with the reasoning behind the choices and analysis methods.
Preliminary analyses

Participant data were screened for large amounts of missing responses and tested for outliers using histograms, boxplots, and z-scores to ensure that participants fell within a normal distribution. The resulting sample of 251 participants was used in all data analysis. Descriptive statistics were then calculated for each measure (PSPS, SATAQ-3, EDI-3, GMS, IPIP, CFNI, IFAS, SIF, BIDR, BMI) and for all demographic variables. In addition, Cronbach’s alpha coefficients were reported for the PSPS, SATAQ-3, EDI-3, GMS, IPIP, CFNI, IFAS, SIF, and BIDR. Intercorrelations of all variables—including BMI and the demographic variables of age, race/ethnicity, education level, and sexual orientation—were computed and summarized in a zero-order correlation matrix. Based on previous research (e.g., Bergeron & Senn, 1998; McLaren & Kuh, 2004; Stice, Nemeroff, & Shaw, 1996; Stice & Whitenton, 2002; Warren, Gleaves, Cepeda-Benito, del Carmen Fernandez, & Rodriguez-Ruiz, 2005), I anticipated that BMI, race-ethnicity, education level, and sexual orientation would correlate significantly with measures of internalization and/or body dissatisfaction. The anticipated correlations involving BMI and/or demographic variables were found and these variables were included in the first step of the corresponding hierarchical regressions (described below).

Primary Analyses of Interest

Hypotheses 1-3 and 5-7 were tested using 8 separate hierarchical multiple regression analyses. Four regressions were performed for each of the two criterion variables under consideration: internalization and body dissatisfaction. In the first four regressions (for internalization), four covariates (age, education level, sexual orientation, BMI,) were entered in Step 1, and the predictor variable (sociocultural pressures) was
entered at Step 2. In each regression, one of the potential moderating factors (self-determined nonconformity, rejection of traditional feminine gender roles, or endorsement of feminist ideals) was added in Step 3. Two separate moderated regressions were conducted with the endorsement of feminist ideals construct, one for each of its two different operationalizations (i.e., IFAS, SIF). Finally, in each regression, the corresponding interaction term (e.g., sociocultural pressures x self-determined nonconformity) was entered in Step 4, to test for the moderation of the relationship between sociocultural pressures and internalization. A statistically significant change in \( R^2 \) at Step 4 would have indicated the presence of a moderator effect.

In the next four regressions (for body dissatisfaction), two covariates (sexual orientation, and BMI) were entered in Step 1. The predictor variable (internalization) was entered at Step 2. In each regression, one of the potential moderating factors (self-determined nonconformity, rejection of traditional feminine gender roles, or endorsement of feminist ideals) was added in Step 3. Once again, two separate moderated regressions were conducted with the endorsement of feminist ideals construct, one each for the IFAS and SIF. Finally, in each regression, the corresponding interaction term (e.g., internalization x self-determined nonconformity) was entered in Step 4, to test for the moderation of the relationship between internalization and body dissatisfaction. A statistically significant change in \( R^2 \) at Step 4 would have indicated the presence of a moderator effect. Per the recommendations of Aiken and West (1991), centered scores were used to calculate all interaction terms to avoid multicollinearity. Centered scores are created by using z-scores (subtracting the mean from each individual score).
Hypothesis 4 was tested using correlations and hierarchical multiple regression. A statistically significant result would be indicated by meeting the conditions for mediation (Baron & Kenny, 1986). Specifically, it had to be shown that there was a significant relationship between sociocultural pressures and internalization, sociocultural pressures must be significantly related to adherence to gender roles, and adherence to gender roles must be significantly related to internalization. Additionally, it had to be shown that the strength of the relationship between sociocultural pressures and internalization was significantly reduced when adherence to gender roles was added to the model.

**Power Analysis**

A power analysis was calculated to determine the sample size needed to achieve sufficient power (.80) for hierarchical regressions that involving the largest possible number of covariates (i.e., five—race, education level, sexual orientation, BMI, and impression management) as well as the predictor (e.g., sociocultural pressures), potential moderator (e.g., self-determined nonconformity), and corresponding interaction term (e.g., sociocultural pressures x self-determined nonconformity). Based on previous research (e.g., Bergeron & Senn, 1998; McLaren & Kuh, 2004; Stice, Nemeroff, & Shaw, 1996; Stice & Whitenton, 2002; Warren et al., 2005), I estimated that BMI, race-ethnicity, education level, sexual orientation, and impression management would account for about 20% of the variance in internalization and 30% of the variance in body dissatisfaction. Therefore, the estimated effect size in Step 1 of the hierarchical regression was .30.
Previous research (i.e., Calogero, Davis, & Thompson, 2004; Stice et al., 1996b; Stice & Whitenton, 2002) suggested that sociocultural pressures account for 5-20% of the variance in internalization, and that internalization accounts for 5-21% of the variance in body dissatisfaction. Therefore, the estimated incremental effect size (i.e., beyond BMI and demographics) in Step 2 of the regression was .07.

Research has not yet estimated the incremental effect (i.e., beyond BMI, demographics, and sociocultural pressures/internalization) of the hypothesized moderators (self-determined nonconformity, rejection of traditional feminine gender roles, or endorsement of feminist ideals) or their interactions with the primary predictors (i.e., sociocultural pressures and internalization) on internalization or body dissatisfaction. However, research has revealed that the total effect of the proposed moderators on internalization and/or body dissatisfaction generally has been modest, ranging from 2-17% (Fingeret & Gleaves, 2004; Mahalik et al., 2005; Pelletier et al., 2004; Stice et al., 1996b; Stice et al., 2000). Therefore, I estimated the incremental effects at Steps 3 and 4 to be modest, at .03 each.

Assuming effect sizes of .30, .07, .03, and .03 at Steps 1, 2, 3, and 4, respectively, of the hierarchical regressions, a sample size of 170 was needed to provide power of .80 to reject the null hypothesis ($p < .05$) that the increment in Step 4 is zero. The actual sample of 257 participants provided more than enough people to provide this level of power.
CHAPTER IV
RESULTS

This chapter will explore the findings of the moderation and mediation analyses described in Chapter III. First, the characteristics of the sample and how it compares to previous samples will be described. Next, the results of the hierarchical regression analyses will be discussed, with a focus on the proposed moderator and mediator effects of the variables of interest.

Descriptive Statistics and Internal Consistency Estimates of the Major Variables

With a few exceptions, the bulk of the major variables of interest exhibited comparable means and good to excellent internal consistency in this sample, when compared to previous estimates (see Table 1). However, there were two deviant scores of note. First, the mean score for body dissatisfaction (EDI3BD score; $M = 27.27$) was more than half of a standard deviation higher than Garner’s (2004) reported non-clinical mean score for the EDI-3 Body Dissatisfaction scale ($M = 19.95$). This indicates that the sample in the current study may exhibit higher amounts of body satisfaction than a typical non-clinical population. Second, the internal consistency score of self-determined non-conformity (GMS score; $\alpha = .78$) was appreciably lower than that reported by Pelletier et al. (2005; $\alpha = .95$).
Table 1.

Descriptive Statistics for Major Variables

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<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
<th>Possible Range</th>
<th>α</th>
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<th>Comparable α</th>
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<td>1-10</td>
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<td>3.19</td>
<td>.92</td>
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<td>0-1</td>
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<td>.87-97</td>
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<td>0-1</td>
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<td>.87</td>
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<td>17-119</td>
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<td>27-50</td>
<td>10-50</td>
<td>.80</td>
<td>40.89</td>
<td>.84</td>
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Notes. N = 251. BMI = Body Mass Index, PSPS = Perceived Sociocultural Pressures Scale, SATAQ3 = Sociocultural Attitudes Towards Appearance Scale – 3, EDI3BD = Eating Disorders Inventory – 3 – Body Dissatisfaction Scale, GMS = Global Motivation Scale, CFNI = Conformity to Feminine Norms Inventory, SIDF = Self-Identification as a Feminist Scale, IFAS = Involvement in Feminist Activities Scale, BIDRIM = Balanced Inventory of Desirable Responding – Impression Management Scale, IPIP – International Personality Inventory Pool Intellect/Openness to Experience

Correlations Among Major Variables

The following section will describe the correlations between variables of interest and their subsequent impact on statistical analyses.
Correlations Between Potential Covariates and Criterion Variables

Table 2 presents the intercorrelations between potential covariates and criterion variables. As Table 2 illustrates, there are statistically significant correlations between the four covariates of age, education level, sexual orientation, and BMI and internalization (SATAQ3 scores). There are also significant negative correlations between two of the covariates (sexual orientation and BMI) and body dissatisfaction (EDI3BD scores). Because of the observed significant associations between several potential covariates and the criterion variables of internalization and body dissatisfaction, these covariates were included in subsequent tests of the major hypotheses.

Correlations between IPIP Intellect scores and scores from the GMS, CFNI, SIDF, and IFAS were also considered (GMS, $r = .36$; CFNI, $r = -.19$; SIDF, $r = .37$; and IFAS, $r = .42$; see Table 3). Despite these low-to-moderate correlations, I chose not to include the IPIP Intellect scores in subsequent analyses because the purpose of using the IPIP was to confirm the discriminant validity of the GMS. Additionally, it makes sense conceptually that there should be some overlap between these variables, and testing personality factors within the SMB was outside the scope of this study.

Correlations Between SMB Constructs

As Table 4 indicates, the three factors of the SMB examined in this dissertation (i.e., perceived sociocultural pressures, internalization, and body dissatisfaction) were internalization (SATAQ3 scores) was significantly and negatively related ($r = -.34$) to body dissatisfaction (EDI3BD scores). Perceived sociocultural pressures (PSPS scores) and body dissatisfaction (EDI3BD scores) were significantly and negatively correlated ($r = -.51$).
Table 2.

Correlations Between Potential Covariates and Criterion Variables

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<th>4</th>
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<th>6</th>
<th>7</th>
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</tr>
<tr>
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<td>Sex Orient</td>
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<td>-.25**</td>
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<td>.11</td>
<td>-.21**</td>
<td>-.10</td>
<td>-.24**</td>
<td>-.34**</td>
</tr>
</tbody>
</table>

Notes.  N = 251.  *Significant at p<.05; **significant at p<.01.  BMI = Body Mass Index, SATAQ3 = Sociocultural Attitudes Towards Appearance Scale – 3, EDI3BD = Eating Disorders Inventory – 3 – Body Dissatisfaction Scale.

Table 3.

Correlations Between Potential Covariates and IPIP Intellect (Openness)

<table>
<thead>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
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<td>1</td>
<td>GMS</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>CFNI</td>
<td></td>
<td>-.29**</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>SIDF</td>
<td></td>
<td>.20**</td>
<td>-.23**</td>
<td>1.0</td>
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<td>IFAS</td>
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<td>.25**</td>
<td>-.24**</td>
<td>.79**</td>
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<tr>
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<td>-.19**</td>
<td>.37**</td>
<td>.42**</td>
</tr>
</tbody>
</table>

Notes.  N = 251.  *Significant at p<.05; **significant at p<.01.  GMS = Global Motivation Scale, CFNI = Conformity to Feminine Norms Inventory, SIDF = Self-Identification as a Feminist Scale, IFAS = Involvement in Feminist Activities Scale, BIDRIM = Balanced Inventory of Desirable Responding – Impression Management Scale, IPIP = International Personality Inventory Pool.  moderately correlated.  Perceived sociocultural pressures (PSPS scores) were positively
Table 4.

Correlations Between SMB Constructs

<table>
<thead>
<tr>
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<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PSPS</td>
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<td></td>
</tr>
<tr>
<td>2</td>
<td>SATAQ3</td>
<td>.30**</td>
<td>1.0</td>
</tr>
<tr>
<td>3</td>
<td>EDI3BD</td>
<td>-.51**</td>
<td>-.34**</td>
</tr>
</tbody>
</table>

Notes. N = 251. *Significant at p<.05; **significant at p<.01. PSPS = Perceived Sociocultural Pressures Scale, SATAQ3 = Sociocultural Attitudes Towards Appearance Scale – 3, EDI3BD = Eating Disorders Inventory – 3 – Body Dissatisfaction Scale.

Correlations Between Potential Moderators and Criterion Variables

Several of the potential moderators (i.e., self-determined non-conformity, traditional feminine gender roles, and adherence to feminist ideals) had low to moderate significant correlations with the criterion variables of interest (i.e., internalization and body dissatisfaction), as indicated by Table 5. Self-determined non-conformity (GMS scores) was significantly and negatively correlated ($r = -.32$) with internalization (SATAQ3 scores), and significantly and positively correlated ($r = .26$) with body dissatisfaction (EDI3BD scores). Conformity to traditional feminine gender roles was significantly and positively correlated with both internalization (SATAQ3 scores; $r = .35$) and body dissatisfaction (EDI3BD; $r = .42$). Self-identification as a feminist, as measured by the SIDF, was significantly and positively correlated ($r = .16$) with body dissatisfaction (EDIBD).

Tests of Hypotheses

This section describes each hypothesis and how they were tested, along with how information was entered for each statistical analysis.
Table 5.

Correlations Between Potential Moderators and Criterion Variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
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<td></td>
<td></td>
<td></td>
</tr>
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<td>CFNI</td>
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<td>1.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>SIDF</td>
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<td>-.23**</td>
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<tr>
<td>4</td>
<td>IFAS</td>
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<td>-.24**</td>
<td>.79**</td>
<td>1.0</td>
<td></td>
</tr>
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<td>.35**</td>
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<td>-.08</td>
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<td>6</td>
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<td>.26**</td>
<td>.42**</td>
<td>.16*</td>
<td>.12</td>
<td>-.34**</td>
</tr>
</tbody>
</table>

Notes. N = 251 *Significant at p<.05; **significant at p<.01. SATAQ3 = Sociocultural Attitudes Towards Appearance Scale – 3, EDI3BD = Eating Disorders Inventory – 3 – Body Dissatisfaction Scale, GMS = Global Motivation Scale, CFNI = Conformity to Feminine Norms Inventory, SIDF = Self-Identification as a Feminist Scale, IFAS = Involvement in Feminist Activities Scale.

Moderating the Relationship Between Sociocultural Pressures and Internalization

The first hypothesis stated that higher levels of self-determined non-conformity would moderate the relationship between perceived sociocultural pressures and internalization by decreasing the impact of perceived sociocultural pressures on internalization of the thin ideal. The second hypothesis stated that greater rejection of traditional feminine gender roles would moderate the relationship between perceived sociocultural pressures and internalization by decreasing the impact of perceived sociocultural pressures on internalization of the thin ideal. The third hypothesis stated that greater endorsement of feminist ideals would moderate the relationship between perceived sociocultural pressures and internalization by decreasing the impact of perceived sociocultural pressures on internalization of the thin ideal. Each hypothesis was
tested with a series of hierarchical regressions, with age, education level, sexual orientation and BMI as covariates in step 1 (based on their observed significant relations with internalization); sociocultural pressures (i.e., PSPS scores) in step 2; the potential moderator (i.e, self-determined non-conformity [GMS scores], traditional feminine gender roles [CFNI scores], and greater endorsement of feminist ideals [SIDF scores and IFAS scores]) in step 3; and the interaction term between sociocultural pressures and the corresponding potential moderator in step 4. In each regression, the criterion variable was internalization. A statistically significant increment in $R^2$ at Step 4 would provide evidence of a moderator effect.

Per the recommendations of Aiken and West (1991), all covariates, predictors, and proposed moderators were centered to reduce the potential problem of multicollinearity. Results of the moderated regressions involving the relation between sociocultural pressures and internalization are summarized in Table 6. As shown in Table 6, none of the proposed moderators significantly moderated the relation between sociocultural pressures and internalization; however, the analyses of Hypotheses 1 and 2 indicated that at Step 3 (i.e., without the non-significant interaction term) there were direct (i.e., unique) effects of both self-determined non-conformity ($\beta = -.19, t = -3.43, p < .01$) and feminine gender roles ($\beta = .25, t = 4.57, p < .001$) on internalization. The direction of the beta weights indicated that higher levels of self-determined non-conformity were associated with lower levels of internalization, whereas greater conformity to traditional feminine gender roles was associated with higher levels of internalization.
Mediation Analyses

Hypothesis 4 stated that adherence to traditional feminine gender roles would mediate the relationship between perceived sociocultural pressures and internalization by explaining a significant part of the effect of perceived sociocultural pressure on internalization. A test of mediation was performed to determine if gender roles mediated the relationship between sociocultural pressures and internalization by following the conditions for mediation set forth by Baron and Kenney (1986). The first condition states that the predictor and criterion variables are significantly correlated. Results indicated a significant positive correlation ($r = .30, p < .01$) between sociocultural pressures (PSPS) and internalization (SATAQ-3). The second condition states that the predictor must be correlated with the mediator. Sociocultural pressures (PSPS) was significantly correlated with gender roles (CFNI; $r = .18, p < .01$). Third, the mediator must be related to the criterion variable when controlling for the predictor and covariates. A hierarchical regression was performed with sociocultural pressures (i.e., PSPS scores) and the covariates (age, education level, sexual orientation, and BMI) in step 1, and gender roles (CFNI scores) in step 2, with internalization (SATAQ-3) as the criterion variable. Results indicated a significant $R^2_{\text{change}}$ of .06 ($F[1] = 21.32, p < .01$) in Step 2. Last, the relationship between the predictor and the criterion variables must be lowered significantly when the effects of the mediator and covariates are controlled. To test this last step, another hierarchical regression was performed. Gender roles (CFNI) and the covariates (age, education level, sexual orientation, and BMI) were placed in Step 1, and sociocultural pressures (PSPS) in Step 2, with internalization (SATAQ-3) as the
Table 6.
Hierarchical Multiple Regression Analyses Predicting Internalization (SATAQ-3) from Sociocultural Pressures (PSPS), Hypothesized Moderator Variables, and Their Interactions

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<th>Step 3 Beta</th>
<th>Final β</th>
<th>Cumulative R²</th>
<th>Adjusted R²</th>
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<td>&lt;.01</td>
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<td>.10</td>
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<td>.03</td>
<td>.28</td>
<td>.26</td>
<td>.00</td>
<td>.02</td>
</tr>
</tbody>
</table>

Notes. N = 257. *Significant at p<.05; **significant at p<.01. BMI = Body Mass Index, PSPS = Perceived Sociocultural Pressures Scale, SATAQ3 = Sociocultural Attitudes Towards Appearance Scale – 3, EDI3BD = Eating Disorders Inventory – 3 – Body Dissatisfaction Scale, GMS = Global Motivation Scale, CFNI = Conformity to Feminine Norms Inventory, SIDF = Self-Identification as a Feminist Scale, IFAS = Involvement in Feminist Activities Scale.

criterion variable. There was evidence of a significant $R^2_{change}$ of .07 ($F[1] = 24.85, p < .01$). Importantly, the magnitude of the relation between sociocultural pressures and
internalization dropped from $R^2 = .12$ to $R^2 = .07$ when the effect of the potential mediator (i.e., feminine gender role adherence) was controlled. Significance at each step of Baron and Kenney’s (1986) test for mediation indicated the possibility that gender roles partially mediated the relationship between sociocultural pressures and internalization.

The Sobel test (Sobel, 1982) was performed to determine if the partial mediation was significant. The regression coefficients and standard error of the path between sociocultural pressures and gender roles ($\beta = .007, SE = .002$) and between gender roles and internalization ($\beta = .016, SE = .003$) were calculated and entered into the Sobel test formula. The Sobel test indicated that gender roles accounted for a small but significant portion of the variance in the relationship between sociocultural pressures and internalization, and therefore was a partial mediator (Sobel Test Statistic = 2.92, $p < .01$). Thus, Hypothesis 4 was supported.

*Moderating the Relationship Between Internalization and Body Dissatisfaction*

The fifth hypothesis stated that higher levels of self-determined non-conformity would moderate the relationship between internalization and body dissatisfaction by decreasing the impact of internalization of the thin ideal on body dissatisfaction. The sixth hypothesis stated that greater rejection of traditional feminine gender roles would moderate the relationship between perceived internalization and body dissatisfaction by decreasing the impact of internalization of the thin ideal on body dissatisfaction. The seventh hypothesis stated that greater endorsement of feminist ideals would moderate the relationship between internalization and body dissatisfaction by decreasing the impact of internalization of the thin ideal on body dissatisfaction. Each hypothesis was tested with a
series of hierarchical regressions, with sexual orientation and BMI as covariates in step 1 (based on their observed significant correlations with body dissatisfaction), internalization (i.e., SATAQ3 scores) in step 2, the potential moderator (i.e, self-determined non-conformity [GMS scores], traditional feminine gender roles [CFNI scores], and greater endorsement of feminist ideals [SIDF scores and IFAS scores]) in step 3, and the interaction term between internalization and the corresponding potential moderator in step 4. In each regression, the criterion variable was body dissatisfaction. A statistically significant increment in $R^2$ at Step 4 would provide evidence of a moderator effect.

Per the recommendations of Aiken and West (1991), all covariates, predictors, and proposed moderators were centered to reduce the potential problem of multicollinearity. Results of the moderated regressions involving the relation between internalization and body dissatisfaction are summarized in Table 7. As shown in Table 7, none of the proposed moderators significantly moderated the relation between sociocultural pressures and internalization, therefore, Hypotheses 5-7 were not supported. However, regressions testing Hypotheses 5-7 indicated that at step 3 (i.e., without the non-significant interaction term) there were direct (i.e., unique) effects of self-determined non-conformity ($\beta = .10, t = 2.01, p < .05$), feminine gender roles, ($\beta = -.27, t = -5.21, p < .001$), and endorsement of feminist ideals (i.e., SIDF scores; $\beta = .11, t = 2.12, p < .05$) on body dissatisfaction. The direction of the beta weights indicated that higher levels of self-determined non-conformity and greater endorsement of feminist ideals were associated with lower levels of body dissatisfaction, whereas greater conformity to traditional feminine gender roles was associated with higher levels of body dissatisfaction.
Table 7.

Hierarchical Multiple Regression Analyses Predicting Body Dissatisfaction (EDI3BD) from Internalization (SATAQ-3), Hypothesized Moderator Variables, and Their Interactions

<table>
<thead>
<tr>
<th>Step</th>
<th>Predictor</th>
<th>Step 3 Beta</th>
<th>Final β</th>
<th>Cumulative R²</th>
<th>Adjusted R²</th>
<th>Incremental R²</th>
<th>Incremental F</th>
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<td>.22</td>
<td>.23</td>
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<td>-.12</td>
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</tr>
<tr>
<td>3</td>
<td>GMS</td>
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<td>.41</td>
<td>.02</td>
<td>6.41*</td>
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<tr>
<td>4</td>
<td>SATAQ-3 x GMS</td>
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<td>.24</td>
<td>.41</td>
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<th>Step 3 Beta</th>
<th>Final β</th>
<th>Cumulative R²</th>
<th>Adjusted R²</th>
<th>Incremental R²</th>
<th>Incremental F</th>
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<td>-.51</td>
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<td>.22</td>
<td>.23</td>
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<td>.40</td>
<td>.17</td>
<td>74.00**</td>
</tr>
<tr>
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<td>.47</td>
<td>.07</td>
<td>33.30**</td>
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<th>Final β</th>
<th>Cumulative R²</th>
<th>Adjusted R²</th>
<th>Incremental R²</th>
<th>Incremental F</th>
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<tbody>
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<td>-.52</td>
<td>.23</td>
<td>.22</td>
<td>.23</td>
<td>37.99**</td>
</tr>
<tr>
<td></td>
<td>Sexual Orientation</td>
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<td>-.08</td>
<td></td>
<td></td>
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<td></td>
</tr>
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<td>.40</td>
<td>.40</td>
<td>.17</td>
<td>74.00**</td>
</tr>
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<td>.41</td>
<td>.00</td>
<td>.00</td>
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<th>Step</th>
<th>Predictor</th>
<th>Step 3 Beta</th>
<th>Final β</th>
<th>Cumulative R²</th>
<th>Adjusted R²</th>
<th>Incremental R²</th>
<th>Incremental F</th>
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<tbody>
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<td>BMI</td>
<td>-.53</td>
<td>-.53</td>
<td>.23</td>
<td>.22</td>
<td>.23</td>
<td>37.99**</td>
</tr>
<tr>
<td></td>
<td>Sexual Orientation</td>
<td>-.08</td>
<td>-.08</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2</td>
<td>SATAQ-3</td>
<td>-.42</td>
<td>.29</td>
<td>.40</td>
<td>.40</td>
<td>.17</td>
<td>74.00**</td>
</tr>
<tr>
<td>3</td>
<td>IFAS</td>
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<td>.41</td>
<td>.01</td>
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<tr>
<td>4</td>
<td>SATAQ-3 x IFAS</td>
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<td>.42</td>
<td>.41</td>
<td>.01</td>
<td>.01</td>
<td>1.96</td>
</tr>
</tbody>
</table>

Notes.  N = 257. *Significant at p<.05; **significant at p<.01. BMI = Body Mass Index, PSPS = Perceived Sociocultural Pressures Scale, SATAQ3 = Sociocultural Attitudes Towards Appearance Scale – 3, EDI3BD = Eating Disorders Inventory – 3 – Body Dissatisfaction Scale, GMS = Global Motivation Scale, CFNI = Conformity to Feminine Norms Inventory, SIDF = Self-Identification as a Feminist Scale, IFAS = Involvement in Feminist Activities Scale.

Further consideration of Hypotheses 2 and 6 suggested that using the total CFNI score for analyses of these hypotheses may have obscured or suppressed potential significant moderating effects of relevant CFNI subscales, particularly Drive for Thinness and Appearance. Thus, the regression analyses for Hypotheses 2 and 6 were re-run with
CFNI Drive for Thinness and Appearance as separate potential moderators in step 4 of the regressions. The results indicated that neither subscale of the CFNI significantly moderated the relation between body dissatisfaction and internalization or the relation between internalization and body dissatisfaction.

Finally, due to possible conceptual overlap of sexual orientation with some of the major variables (e.g., self-determined non-conformity, adherence to traditional feminine gender roles), all moderation analyses were re-run without sexual orientation as a covariate in the first step. There was no change in the results; all moderation analyses remained non-significant.

Summary

Hypotheses 1, 2, and 3 were not supported. Contrary to the predictions, the results indicated that higher levels of self-determined non-conformity, greater rejection of feminine gender roles, and greater endorsement of feminist ideal did not moderate the relationship between sociocultural pressures and internalization. Hypothesis 4 was supported, with results suggesting that adherence to traditional feminine gender roles partially mediates the relationship between sociocultural pressures and internalization. Hypotheses 5, 6 and 7 were also not supported. Contrary to prediction, self-determined non-conformity, greater rejection of feminine gender roles, and greater endorsement of feminist ideal did not moderate the relationship between internalization and body dissatisfaction. Although not predicted, results indicated significant direct effects; self-determined non-conformity and adherence to traditional feminine gender roles accounted for significant unique variance in internalization. Additionally, self-determined non-
conformity, adherence to traditional feminine gender roles, and feminist identification accounted for significant unique variance in predicting body dissatisfaction.
CHAPTER V
DISCUSSION

This chapter will offer an interpretation and discuss the implications of the results presented in Chapter IV. First, the findings of the analyses will be discussed in reference to possible explanations and their convergence with or divergence from previous literature. Next, theoretical and research implications of the study will be discussed. Finally, limitations of the study will be reviewed and suggestions for future directions within psychological research will be made.

Results

The following section will describe the results of moderation and mediation analyses and the consequences of these findings on the SMB.

*Moderating the Relationship Between Perceived Sociocultural Pressures and Internalization*

Hypothesis 1 stated that higher levels of self-determined non-conformity would moderate the relationship between perceived sociocultural pressures and internalization by decreasing the impact of perceived sociocultural pressures on internalization of the thin ideal. Hypothesis 2 stated that greater rejection of traditional feminine gender roles would moderate the relationship between perceived sociocultural pressures and internalization by decreasing the impact of perceived sociocultural pressures on internalization of the thin ideal. Hypothesis 3 stated that greater endorsement of feminist
ideals would moderate the relationship between perceived sociocultural pressures and internalization by decreasing the impact of perceived sociocultural pressures on internalization of the thin ideal. Results of hierarchical regression analyses indicated that none of the three proposed moderators of the relationship between sociocultural pressures and internalization was a significant moderator. That is, none of the proposed moderators reduced (or strengthened) the relation between sociocultural pressures and internalization. In the following sections, I will discuss in more detail the results bearing on each of the proposed moderators

Self-Determined Non-Conformity

The non-significant moderating effect of self-determined non-conformity represents somewhat of a departure from previous literature regarding the role of non-conformity in the sociocultural pressures-internalization relation. Twamley and Davis (1999) first suggested that, based on Stice’s (1994) theory, a tendency to disregard social norms and conventions (non-conformity) might be a protective factor that buffers the effect of sociocultural pressures on the internalization of the thin ideal. Indeed, Twamley and Davis found that general non-conformity was a moderating factor in the relationship between awareness of sociocultural thinness and thin-ideal internalization, as they hypothesized.

Recall, however, that Twamley and Davis (1999) used a personality scale (Jackson Personality Inventory Conformity Subscale; Jackson, 1976) to measure non-conformity, suggesting that non-conformity is a stable and global personality trait rather than a malleable factor that can be changed through awareness and education. In an effort to extend Twamley and Davis’ (1999) work, I intentionally chose to conceptualize and
operationalize non-conformity as global self-determination (Pelletier et al., 2004), a more specific construct which focuses on self-initiated motivation behind behaviors and has been found to relate negatively to sociocultural pressures, internalization, and bulimia (Pelletier et al., 2004).

Given the posited and previously demonstrated (e.g., Twamley & Davis, 1999) moderator effect of non-conformity in the sociocultural pressures-internalization relation, the current results were somewhat surprising. One possible explanation for these null findings may be the interpretation of the GMS items. Participants may not have perceived the items as assessing the motivation behind non-conformist thoughts and behaviors, in that a thought or behavior may be highly self-determined and conformist. Future researchers might more closely examine what constructs the GMS truly assesses.

**Adherence to Traditional Feminine Gender Roles**

There was no support for Twamley and Davis’ (1999) posited moderating role of traditional feminine gender roles in the relationship between sociocultural pressures and internalization. In the only direct test of this relation, Twamley and Davis (1999) also failed to find support for traditional feminine gender roles as a moderator of the sociocultural pressures-internalization relation. Recall, however, that their study was potentially limited by their use of the PAQ as a measure of gender roles. Spence (1983), the co-creator of the PAQ, has acknowledged that the instrument assesses global personality traits rather than adherence to gender roles, per se. In an effort to extend the literature, I revisited Twamley and Davis’ posited relation involving traditional feminine gender roles, usually an arguably more valid and comprehensive measure of adherence to
traditional feminine role norms, the Conformity to Feminine Norms Inventory (CFNI; Mahalik et al., 2005).

The literature overall suggests that rejection of traditional feminine gender roles may be associated with decreased internalization (e.g., Paxton & Sculthorpe, 1991; Stice et al., 1994). However, consistent with Twamley and Davis’ (1999) initial investigation using the PAQ, the current study revealed no empirical support for the moderating role of rejection of traditional feminine gender roles in the relation between women’s awareness of sociocultural thinness and thin-ideal internalization. When considered further, adherence to specific feminine gender roles (e.g., Thinness, Investment in Appearance) were examined as potential moderators with the relation of interest. The specific feminine gender roles also failed to moderate the relation between sociocultural pressures and internalization. Future researchers are encouraged to revisit the role of feminine gender role adherence at different points within the SMB.

Endorsement of Feminist Ideals

The results of previous research (i.e., Twamley & Davis, 1999) failed to support Twamley and Davis’ own suggestion that endorsement of feminist ideals buffers, or moderates, the relation between the experience of sociocultural pressures and internalization of the thin ideal. Nevertheless, Twamley and Davis (1999) tested their posited moderator relation using an outdated measure of feminist ideals, the Attitudes Toward Women Scale (AWS; Spence et al., 1973). Moreover, previous qualitative work by McKinley (2004) and Rubin et al. (2004) has suggested that activism may be the protective factor in feminism, and no previous research had specifically examined this possibility. Thus, the present study sought to revisit the possibility that the endorsement
of feminist ideals moderates the sociocultural pressures-internalization relation by conceptualizing and measuring feminism two different ways: feminist activism and simple identification as a feminist. Results revealed no support for the posited moderator effect of endorsement of feminist ideals in the sociocultural pressures-internalization relation, regardless of how feminism was measured.

Interestingly, very recent research by Myers and Crowther (2007) may give some insight into the observed null findings. Myers and Crowther found that higher levels of feminist beliefs did moderate the relationship between sociocultural pressures and internalization, but only between pressures from the media and internalization, not between pressures from social relationships and internalization. Further examination of the measure used to measure sociocultural pressures in this dissertation, the PSPS, revealed that 8 of the 10 questions specifically address perceived pressures from social relationships, while only two questions address media pressures. This emphasis on sociocultural pressures from social relationship may have contributed to the null findings of Hypothesis 3.

Rubin et al.’s (2004) research may also provide further insight. Their study found that women with feminist beliefs felt that their beliefs provided “an alternate way to understand cultural messages and reframe negative thoughts” about body dissatisfaction (Rubin et al., 2004, p. 27). However, the belief that they should not judge their appearances so critically failed to make it easier to overcome internalized messages, and even caused guilt about failing to be a good feminist! These conflicting beliefs may suggest that despite the seeming dissonance, internalization and feminism may co-exist in the same individual.
Mediating the Relationship Between Perceived Sociocultural Pressures and Internalization

Gender roles were analyzed as both a possible moderating factor (Hypothesis 2) and a possible mediating factor (see Hypothesis 4) of the relationship between sociocultural pressures and internalization. Specifically, Hypothesis 4 stated that level of adherence to traditional feminine gender roles would at least partially mediate the relationship between perceived sociocultural pressures and internalization. This hypothesis was based on Stice’s (1994) finding that gender role endorsement partially mediated this relationship within the SMB. The current findings parallel Stice’s (1994), and suggest that a portion of the effect of sociocultural pressures on internalization occurred through conformity to traditionally feminine norms. This finding suggests that sociocultural pressures exert part of their effect on internalization of the thin ideal through their encouragement of traditional feminine gender roles. Given the nature of some of the specific role norms measured by the CFNI (e.g., Thinness, Investment in Appearance), the observed partially mediated relation makes intuitive sense. These results raise the possibility that adherence to traditional feminine gender roles should be added to the SMB (Stice, 1994) as a mediator between sociocultural pressures and internalization in order to create a more comprehensive model.

Moderating the Relationship Between Internalization and Body Dissatisfaction

Hypotheses 5-7 stated that higher levels of self-determined non-conformity (Hypothesis 5), greater rejection of traditional feminine gender roles (Hypothesis 6), and greater endorsement of feminist ideals (Hypothesis 7) would moderate the relationship between internalization and body dissatisfaction by decreasing the impact of
internalization of the thin ideal on body dissatisfaction. In the test of Hypothesis 7, endorsement of feminist ideals was measured in two ways: the Involvement in Feminist Activities scale and the Self-Identification as a Feminist scale. Contrary to predictions, results of hierarchical regression analyses indicated that none of the three proposed moderators of the relationship between internalization and body dissatisfaction was a significant moderator. That is, none of the proposed moderators reduced (or strengthened) the relation between internalization and body dissatisfaction. In the sections to follow, I will discuss in more detail the results bearing on each of the proposed moderators.

**Self-Determined Non-Conformity**

Recall that Twamley and Davis (1999) reported preliminary evidence that non-conformity (measured as a personality trait) was a significant moderator of the relationship between sociocultural pressures and internalization. However, no research to date had directly tested Twamley and Davis’ (1999) prediction that nonconformity (in this case, self-determined non-conformity) was a moderator of the relationship between internalization and body dissatisfaction. This is problematic in that developmental literature has found that girls internalize the thin ideal as young as age six (perhaps younger). It therefore makes sense to examine factors that might lessen the effect of internalization in an older sample, after internalization has presumably taken place. Pelletier et al. (2004) found that self-determined non-conformity (as measured by the GMS) inversely predicted internalization and bulimic symptomology, suggesting that self-determined non-conformity might be a protective factor against body dissatisfaction.
Contrary to my hypothesis, self-determined non-conformity had no effect on the internalization-dissatisfaction relation. One plausible explanation for these null findings is that once sociocultural pressures are internalized, non-conformity has little ability to protect women against the development of body dissatisfaction. Perhaps non-conformity can only act as a protective factor much earlier in life, prior to the internalization of the thin ideal.

*Adherence to Traditional Feminine Gender Roles*

The literature overall suggests that rejection of traditional feminine gender roles may be associated with decreased internalization (Paxton & Sculthorpe, 1991; Stice et al., 1994); however, there was no support for my hypothesis that lower adherence to traditional gender role norms would decrease the relation between internalization and body dissatisfaction. Interestingly, although this sample exhibited comparable CFNI scores to previous samples (e.g., Mahalik et al., 2005), their mean body dissatisfaction (i.e., EDI-3-BD) scores were almost a full standard deviation higher than those found in another non-clinical sample (i.e., Garner, 2004). The negatively skewed distribution of dissatisfaction scores (relative to those found by Garner, 2004) may have decreased the chance of finding a significant moderation effect, for adherence to traditional feminine gender roles as well as the other potential moderators.

*Endorsement of Feminist Ideals*

Finally, results revealed that neither engaging in feminist activity nor identifying as a feminist moderated the relationship between internalization and body dissatisfaction. These findings parallel those reported by Fingeret and Gleaves (2004), who found that feminist ideals, operationalized using multiple measures, did not moderate the
relationship between internalization and body dissatisfaction. Qualitative work by McKinley (2004) and Rubin et al. (2004) suggested that activism might be a protective factor in feminism that buffers the effect of thin-ideal internalization on body dissatisfaction; however, the current data offered no support for this suggestion. Instead, the moderate relation \((r = .34)\) between internalization and body dissatisfaction appears to apply to women equally, regardless of their endorsement of feminist ideals and participation in feminist activities.

Myers and Crowther (2007) recently suggested that one should not expect feminist beliefs to moderate the relationship between internalization and body dissatisfaction because feminist beliefs would only enable women to interpret media messages differently and would not have an effect on how women handle the effects of internalization. Their suggestion fits with McKinley’s (1990) theory that women are constantly negotiating how to handle the thin ideal. Intuitively, this makes sense, as sociocultural pressures are constantly present in our world. However, the confusion comes in when considering that Stice and Agras’ (1998) study found no evidence for circularity in the model (which is a unidirectional model), meaning that women do not cycle through the model and go back to the beginning. Considering the current null finding as well as Myers and Crowthers’ compelling argument, it is difficult to know where, if at all, feminist ideals fit within the SMB.

Direct Effects

Some unexpected findings emerged within the process of the hierarchical multiples regression analyses. Results of the regressions indicated that levels of self-determination (GMS scores) and adherence to feminine gender roles (CFNI scores)
accounted for unique variance of both internalization and body dissatisfaction. Additionally, feminist self-identification predicted unique variance in body dissatisfaction. Examination of the beta weights indicated that self-identification and adherence to feminine gender roles directly predict internalization levels. As the roles of these factors within the SMB had only been examined as moderators, mediators, and correlates (as opposed to unique predictors with other factors in the model), these findings may enable a more comprehensive picture of the development of disordered eating behavior. These new direct effects may modify the current picture of the SMB, as Stice et al. (1994) had found evidence of only indirect effects via sociocultural pressures for feminine gender role adherence on internalization. Although these factors may not moderate the relationship between sociocultural pressures and internalization or between internalization and body dissatisfaction, the presence of these direct effects suggests that they are, indeed, part of the larger picture of internalization and body dissatisfaction. It follows that interventions which alter levels of self-determination, adherence to feminine gender roles, and self-identification as a feminist may impact the development of internalization and body dissatisfaction directly.

Limitations and Directions for Future Research

Results of the current study must be considered in light of several methodological limitations, including the sample, sampling procedures, and instrumentation. Following is a more detailed consideration of each of these potential limitations.

Sample

The participant sample of this study was quite unique in some ways and was both a limitation and a strength of this study. It contained women from a relatively wide range
of ages and geographical area, compared to most SMB research (e.g., Stice et al., 1994; Stice, 2001; Stice et al., 1996b; Stice & Agras, 1998), and a good number of women who identified with sexual orientations other than heterosexual. However, the participants were primarily Caucasian and most were very highly educated, with a high percentage of the woman having completed a graduate-level degree. In addition, a quarter of the sample had undergone therapy as a minor, and more than half had undergone therapy as an adult, which is a much higher therapy attendance rate than that of the general population (APA & Harris Interactive, Inc., 2008). Also, participants indicated generally high levels of self-identification as a feminist, and scored more than one standard deviation higher on a measure of Openness to Experience than a comparable sample (Levens et al., 2008). These qualities are most likely due to self-selection and collecting data on-line (see below).

This sample offered distinct advantages and disadvantages with regard to finding resistance factors if they were present. First, the sample was high achieving and thus might be more at-risk according to literature that suggests that high achievement and perfectionism go hand-in-hand with disordered eating behavior (Steiner-Adair, 1986). They were also more likely to seek treatment, as evidenced by higher therapy attendance levels that the norm, and presumably work through problems and handle stress better. It seems reasonable that this might result in a sample that is more at-risk, more psychologically aware, and more prone to engaging in activism than the average population. The disadvantage is that participants may have already considered the roles that the proposed resistance factors in the study (i.e., gender roles, feminism, and non-conformity) and factors of the SMB (i.e., sociocultural pressures, internalization, and
body dissatisfaction) take in their lives, perhaps confounding the study and making it difficult to generalize the results to other populations. However, this is exactly the population that would probably be most likely to develop successful resistance factors against sociocultural pressures; indeed, they experienced more body satisfaction than the normative sample. This suggests that had moderator effects been present, they would have been found.

Levels of Attrition

The study suffered from high levels of attrition due to the method of data collection. Data from 351 participants were collected and approximately one-third of the data was missing more than 10% of the data points. Interestingly, the majority of missed data points did not occur within the bulk of the data, but simply dropped off at some point. It was discovered through individual e-mail communication with a few would-be participants and other researchers that the computer program used to collect data would simply shut down a participant’s session if too many people were trying to participate at one time. Data collection had apparently accelerated to that level at one point, making it impossible for some participants to complete the study. Cases missing more than 10% of the data were removed (Field, 2005), leaving 251 participants.

Instruments

All of the instruments in this study had demonstrated reasonable evidence of validity in other samples and good internal consistency reliability in the current sample. However, all instruments were self-report measures and required the participant to read the directions in order to complete them. Although self-report measures are commonly used, they make the study prone to some human error, intentional or unintentional.
Additionally, several instruments that are multidimensional in nature (i.e., CFNI, GMS) were scored globally, which may have obscured possible relations (including moderator effects) involving one or more specific dimensions. As stated in the Results section, the moderator regression analyses using the CFNI were redone to determine if that was the case. It was not; proposed specific CFNI variables (e.g., Thinness) still did not significantly moderate the relations of interest.

Upon further consideration, there may have been conceptual problems with using the GMS as a measure of non-conformity. Examination of the statements used in the measure suggests that the GMS looks only at the types of motivation behind actions, thoughts, and beliefs, rather than the self-determination behind non-conformist behaviors, thoughts, and beliefs. That is, a behavior can be completely self-determined (i.e., a person does something because they truly believe in it) and yet be conformist behavior. The GMS notes the motivation but not the non-conformist behavior. Therefore, future researchers are encouraged to revisit the SMB paths examined in this research using more specific measure of non-conformist behavior. The conceptual problems with the GMS and GMS scoring that only allows for total scores and makes it difficult to look at subscales individually suggest that it would not be useful to examine the moderating potential of the GMS subscales at this time. The GMS might be more accurately referred to as a measure of self-determination, rather than self-determined non-conformity.

Additionally, the order of the instruments may have limited the study. Each participant was presented with the instruments in the same order, perhaps influencing participants to respond in particular ways or inform responses on a later measure in a way
that confounded the study. It is recommended that future researchers counterbalance the ordered presentation of the measures.

Additional Methodological Concerns

There are two additional methodological issues that may have influenced this study. First, potential study participants were contacted by electronic mail and the study was conducted on-line. Although there are certainly advantages to collecting data on-line, the study is inherently biased toward those who have computers, Internet connections, and the knowledge to use them. This necessarily draws a sample of people who have a somewhat higher level of education and socioeconomic status, and possibly a certain age range. However, this collection method did allow for a relatively wide geographical area and age range to be considered, as compared with many previous studies concerning the SMB. Computer data collection also led to a large amount of incomplete data that could not be used. While there are obvious advantages to collecting data on-line, future researchers might do well to consider the problems with using Survey Monkey to collect data.

Second, the data were cross-sectional, so definitive conclusions about causation cannot be drawn on the basis of the findings in this study. Stice (1994) suggested that it is only possible to truly evaluate the efficacy of the SMB through exploratory, longitudinal methods. However, the purpose of this study was to make some preliminary examinations of possible moderators and mediators of key relationships within the SMB, and to draw some preliminary conclusions that may be of use in future research. A longitudinal study beginning with girls at a very young age might illuminate interesting results regarding the different precursors and influences of internalization and body
dissatisfaction as well as potential moderators and mediators of the sociocultural pressures-internalization and internalization-body dissatisfaction relations.

Summary and Conclusions

This dissertation sought to expand Stice’s (1994) SMB by identifying changeable and learned resistance factors that could potentially interrupt the cycle of sociocultural pressures leading to internalization of the thin ideal, followed by body dissatisfaction and disordered eating. I proposed that self-determined non-conformity, rejection of traditional feminine gender roles, and endorsement of feminist ideals (feminist activism and feminist identity) would moderate the relationship between sociocultural pressures and internalization and the relationship between internalization and body dissatisfaction within the SMB (Stice, 1994). The results of hierarchical regression analyses indicated that none of the proposed resistance factors moderated these relationships.

Given previous research (Stice, 2002), I also proposed that rejection of traditional feminine gender roles would mediate the relationship between sociocultural pressures and internalization. Consistent with my prediction, results of regression analyses indicated that adherence/rejection of gender roles did mediate a significant part of the effect of sociocultural pressures on internalization.

Unexpectedly, self-determined non-conformity and adherence to feminine gender roles predicted unique variance in both internalization and body dissatisfaction, and self-identification as a feminist uniquely predicted body dissatisfaction. These direct effects have important consequences for the SMB, suggesting that the model should be expanded to incorporate these additional factors and create a more comprehensive model.
It is possible that the proposed resistance factors may need to be examined in more precise and specific ways. It seems that media permeates socialization; therefore, it may be macrolevel changes that are necessary. However, the direct effects found in this study suggest that there are more factors directly impacting internalization and body dissatisfaction outside of those previously proposed by Stice (1994) and other researchers. Interventions designed to increase self-determination, decrease feminine gender role adherence, and increase feminist self-identification may help women resist internalization and body dissatisfaction, even as the influence of sociocultural pressures and internalization goes on concurrently. This view may also help to explain why women reportedly experience sociocultural pressures and internalization of the thin ideal, and consciously experience attempts to reduce them. Perhaps activism aimed toward reducing the thin ideal messages that we receive both interpersonally and from the media is also needed and would be useful in addition to individual-level interactions. Holding feminist views of this psychological and societal issue may both decrease internalization and body dissatisfaction within an individual, and be needed to effect changes in internalization and body dissatisfaction in American culture at large.
REFERENCES


APPENDICES
APPENDIX A

PERCEIVED SOCIOCULTURAL PRESSURES SCALE (STICE ET AL., 1996)

Instructions: Please circle the response that best captures your experience:

1. I’ve felt pressure from my friends to lose weight.

   None      some      a lot
   1         2         3         4         5

2. I’ve noticed a strong message from my friends to have a thin body.

   None      some      a lot
   1         2         3         4         5

3. I’ve felt pressure from my family to lose weight.

   None      some      a lot
   1         2         3         4         5

4. I’ve noticed a strong message from my family to have a thin body.

   None      some      a lot
   1         2         3         4         5

5. I’ve felt pressure from people I’ve dated to lose weight.

   None      some      a lot
   1         2         3         4         5

6. I’ve noticed a strong message from people I’ve dated to have a thin body.

   None      some      a lot
   1         2         3         4         5
7. I’ve felt pressure from the media (e.g., TV, magazines) to lose weight.

<table>
<thead>
<tr>
<th>None</th>
<th>some</th>
<th>a lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>4</td>
<td>5</td>
<td></td>
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</tbody>
</table>

8. I’ve noticed a strong message from the media to have a thin body.

<table>
<thead>
<tr>
<th>None</th>
<th>some</th>
<th>a lot</th>
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</thead>
<tbody>
<tr>
<td>1</td>
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<td>4</td>
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</tbody>
</table>

9. Family members tease me about my weight or shape.

<table>
<thead>
<tr>
<th>None</th>
<th>some</th>
<th>a lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>4</td>
<td>5</td>
<td></td>
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</tbody>
</table>

10. Kids at school tease/teased me about my weight or body shape.

<table>
<thead>
<tr>
<th>None</th>
<th>some</th>
<th>a lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
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</table>
### APPENDIX B

**SATAQ-3-INTERNALIZATION-GENERAL SCALE (THOMPSON ET AL., 2004)**

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

<table>
<thead>
<tr>
<th></th>
<th>Definitely Disagree</th>
<th>Mostly Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Mostly Agree</th>
<th>Definitely Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2</td>
<td>2</td>
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<td>3</td>
<td>3</td>
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<td>4</td>
<td>4</td>
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<tr>
<td>5</td>
<td>5</td>
<td></td>
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</tbody>
</table>

___ 1. I would like my body to look like the people who are on TV.
___ 2. I compare my body to the bodies of TV and movie stars.
___ 3. I would like my body to look like the models who appear in magazines.
___ 4. I compare my appearance to the appearance of TV and movie stars.
___ 5. I would like my body to look like the people who are in the movies.
___ 6. I compare my body to the bodies of people who appear in magazines.
___ 7. I wish I looked like the models in music videos.
___ 8. I compare my appearance to the appearance of people in magazines.
___ 9. I try to look like the people on TV.
APPENDIX C

EDI-3-BODY DISSATISFACTION SCALE (GARNER, 2004)

Instructions: The items below ask about your attitudes, feelings, and behaviors. Some of the items relate to food or eating; other items ask about your feelings about yourself.

For each item, decide if the item is true about you ALWAYS (5), Usually (4), SOMETIMES (3), RARELY (2), or NEVER (1). Enter the number that best corresponds to your rating.

Items in red indicate items from Body Dissatisfaction Scale of EDI-3

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
<td>Rarely</td>
<td>Sometimes</td>
<td>Usually</td>
<td>Always</td>
</tr>
</tbody>
</table>

___ 1. I think that my stomach is too big.
___ 2. I think that my thighs are too large.
___ 3. I think that my stomach is just the right size.
___ 4. I feel satisfied with the shape of my body.
___ 5. I like the shape of my buttocks.
___ 6. I think my hips are too big.
___ 7. I feel bloated after eating a normal meal.
___ 8. I think that my thighs are just the right size.
___ 9. I think my buttocks are too large.
___ 10. I think that my hips are just the right size.
APPENDIX D

GLOBAL MOTIVATION SCALE (PELLETIER ET AL., 2005)

Instructions: Please indicate to what extent each of the following statements corresponds generally to the reasons why you do different things.

An * indicates a reverse scored item

<table>
<thead>
<tr>
<th>Do not agree at all</th>
<th>Very slightly agree</th>
<th>Slightly agree</th>
<th>Moderately agree</th>
<th>Mostly agree</th>
<th>Strongly agree</th>
<th>Completely agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

IN GENERAL, I DO THINGS...

1. …because I do not want to disappoint certain people.
   
   1 2 3 4 5 6 7

2. …in order to help myself become the person I am to be.
   
   1 2 3 4 5 6 7

3. …because they represent who I am.
   
   1 2 3 4 5 6 7

4. …even though I do not see the benefit in what I am doing.
   
   1 2 3 4 5 6 7

5. …because I want other people to see me in a positive way.
   
   1 2 3 4 5 6 7

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6. …because I chose them as a way to reach my goals.
   1 2 3 4 5 6 7

7. …for the pleasure of learning something new.
   1 2 3 4 5 6 7

8. …because otherwise I would feel guilty for not doing them.
   1 2 3 4 5 6 7

9. …because they are in line with my main beliefs.
   1 2 3 4 5 6 7

10. …even though it does not make a difference whether I do them or not.
    1 2 3 4 5 6 7

11. …for the pleasant feelings I get while I am doing them.
    1 2 3 4 5 6 7

12. …to show others what I am capable of.
    1 2 3 4 5 6 7

13. …because I force myself to do them.
    1 2 3 4 5 6 7

14. …because of the satisfaction I feel in trying to excel in what I do.
    1 2 3 4 5 6 7

15. …even though I do not have a good reason for doing them.
    1 2 3 4 5 6 7

16. …because I choose to make a commitment to what is important to me.
    1 2 3 4 5 6 7
17. …because I would be upset with myself if I did not do them.

1 2 3 4 5 6 7

18. …because they reflect what I value most in life.

1 2 3 4 5 6 7
APPENDIX E

INTERNATIONAL PERSONALITY ITEM POOL (GOLDBERG, 1999)

Instructions: On the following pages, there are phrases describing people’s behaviors. Please use the rating scale below to describe how accurately each statement describes you. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age. Please read each statement carefully, and choose the answer that describes you best.

1                             2                              3                               4                      5
Very inaccurate      Moderately      Neither inaccurate            Moderately        Very
Inaccurate            nor accurate                  Accurate           Accurate

Generally, I ……

1. Am the life of the party. _____
2. Feel little concern for others. _____
3. Am always prepared. _____
4. Get stressed out easily. _____
5. Have a rich vocabulary. _____
6. Don’t talk a lot. _____
7. Am interested in people. _____
8. Leave my belongings around. _____
9. Am relaxed most of the time. _____
10. Have difficulty understanding abstract ideas. _____
11. Feel comfortable around people. _____

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12. Insult people. ____
13. Pay attention to details. _____
14. Worry about things. _____
15. Have a vivid imagination. _____
16. Keep in the background. _____
17. Sympathize with others’ feelings. _____
18. Make a mess of things. ______
19. Seldom feel blue. _____
20. Am not interested in abstract ideas. _____
21. Start conversations. ______
22. Am not interested in other people’s problems. _____
23. Get chores done right away. ______
24. Am easily disturbed. _____
25. Have excellent ideas. ______
26. Have little to say. _____
27. Have a soft heart. ______
28. Often forget to put things back in their proper place. _____
29. Get upset easily. _____
30. Do not have a good imagination. _____
31. Talk to a lot of different people at parties. _____
32. Am not interested in others. _____
33. Like order. ______
34. Change my mood a lot. _____
35. Am quick to understand things. ______
36. Don’t like to draw attention to myself. ______
37. Take time out for others. ______
38. Shirk my duties. ______
39. Have frequent mood swings. ______
40. Use difficult words. ______
41. Don’t mind being the center of attention. ______
42. Feel others’ emotions. ______
43. Follow a schedule. ______
44. Get irritated easily. ______
45. Spend time reflecting on things. ______
46. Am quiet around strangers. ______
47. Make people feel at ease. ______
48. Am exacting in my work. ______
49. Often feel blue. ______
50. Am full of ideas. ______
APPENDIX F

CONFORMITY TO FEMININE NORMS INVENTORY (MAHALIK ET AL., 2005)

Instructions:
The following pages contain a series of statements about how people might think, feel, or behave. Thinking about your own actions, feelings, and beliefs, please indicate how much you personally agree or disagree with each statement by circling SD for “Strongly Disagree, D for “Disagree”, A for “Agree”, or SA for “Strongly Agree” to the right of the statement.

There are no right or wrong responses to the statements. You should give the responses that most accurately describe your personal actions, feelings and beliefs. It is best if you respond with your first impression when answering.

1. It is important to let people know they are special.
   
   SD      D      A      SA

2. I would baby-sit for fun.

   SD      D      A      SA

3. I would be happier if I were thinner.

   SD      D      A      SA

4. I would feel extremely ashamed if I had many sexual partners.

   SD      D      A      SA

5. I feel uncomfortable being singled out for praise.

   SD      D      A      SA

6. When I am in a romantic relationship, I give it all my energy.

   SD      D      A      SA
7. It is important to keep your living space clean.

SD       D       A       SA

8. I spend more than 30 minutes a day doing my hair and make-up.*

SD       D       A       SA

9. Putting energy into friendships is a waste of time.

SD       D       A       SA

10. I participate in activities that include kids.

SD       D       A       SA

11. I don’t tend to worry about gaining weight.*

SD       D       A       SA

12. If I was single, I would want to date a lot of people.*

SD       D       A       SA

13. Being mean gets you ahead in life.*

SD       D       A       SA

14. I tell everyone about my accomplishments.*

SD       D       A       SA

15. Whether I’m in one or not, romantic relationships are often on my mind.

SD       D       A       SA

16. I clean my home on a regular basis.

SD       D       A       SA

17. I feel unattractive without makeup.*

SD       D       A       SA
18. I believe that my friendships should be maintained at all costs.
   SD      D      A      SA

19. I find children annoying.*
   SD      D      A      SA

20. Being thin is important.
   SD      D      A      SA

21. I prefer long-term relationships to casual sexual ones.
   SD      D      A      SA

22. There is nothing wrong with bragging.*
   SD      D      A      SA

23. I pity people who are single.
   SD      D      A      SA

24. I am comfortable when my living space is a little cluttered.*
   SD      D      A      SA

25. I’d feel superficial if I wore make-up.*
   SD      D      A      SA

26. I feel good about myself when others know that I care about them.
   SD      D      A      SA

27. Taking care of kids is just not for me.*
   SD      D      A      SA

28. I would only diet if a doctor ordered me to do so.*
   SD      D      A      SA
29. I would feel guilty if I had a one-night stand.
   SD   D   A   SA

30. When I succeed, I tell my friends about it.*
   SD   D   A   SA

31. Having a romantic relationship is essential in my life.
   SD   D   A   SA

32. I enjoy spending time making my living space look nice.
   SD   D   A   SA

33. Being nice to others is extremely important.
   SD   D   A   SA

34. I regularly wear make-up.
   SD   D   A   SA

35. I don’t go out of my way to keep in touch with friends.*
   SD   D   A   SA

36. Most people enjoy children more than I do.*
   SD   D   A   SA

37. I would like to lose a few pounds.
   SD   D   A   SA

38. It is impossible to always be nice to others.*
   SD   D   A   SA

39. It is not necessary to be in a committed relationship to have sex.*
   SD   D   A   SA
40. I hate telling people about my accomplishments.
   SD   D   A   SA

41. I can be happy without being in a romantic relationship.*
   SD   D   A   SA

42. I haven’t cleaned my living space in the past week.*
   SD   D   A   SA

43. I get ready in the morning without looking in the mirror very much.*
   SD   D   A   SA

44. I would feel burdened if I had to maintain a lot of relationships.*
   SD   D   A   SA

45. When I want to relax, I don’t want to be around kids.*
   SD   D   A   SA

46. I tend to watch what I eat in order to stay thin.
   SD   D   A   SA

47. I would feel comfortable having casual sex.*
   SD   D   A   SA

48. I make a point to get together with my friends regularly.
   SD   D   A   SA

49. I always downplay my achievements.
   SD   D   A   SA

50. Being in a romantic relationship is important.
   SD   D   A   SA
51. I don’t care if my living space looks messy.*
   SD   D   A   SA

52. I never wear make-up.*
   SD   D   A   SA

53. I always try to make people feel special.
   SD   D   A   SA

54. Caring for children adds meaning to one’s life.
   SD   D   A   SA

55. I’d look better if I put on a few pounds.*
   SD   D   A   SA

56. I frequently change sexual partners.*
   SD   D   A   SA

57. I am not afraid to tell people about my achievements.*
   SD   D   A   SA

58. My life plans do not rely on my having a romantic relationship.*
   SD   D   A   SA

59. I do all of the cleaning, cooking, and decorating where I live.
   SD   D   A   SA

60. It is important to look physically attractive in public.
   SD   D   A   SA

61. If a friendship isn’t working, I’ll end it.*
   SD   D   A   SA
62. I would feel empty if my life did not involve children.

SD  D  A  SA

63. I try to be sweet and nice.

SD  D  A  SA

64. I am always trying to lose weight.

SD  D  A  SA

65. I would only have sex with the person I love.

SD  D  A  SA

66. I don’t seek recognition for my efforts.

SD  D  A  SA

67. When I have a romantic relationship, I enjoy focusing my energies on it.

SD  D  A  SA

68. There is no point to cleaning because things will get dirty again.*

SD  D  A  SA

69. I am not afraid to hurt people’s feelings to get what I want.*

SD  D  A  SA

70. Taking care of children is extremely fulfilling.

SD  D  A  SA

71. I would be perfectly happy with myself even if I gained weight.*

SD  D  A  SA

72. It would be enjoyable to date more than one person at a time.*

SD  D  A  SA
73. I enjoy being in the spotlight.*
   SD D A SA

74. If I were single, my life would be complete without a partner.*
   SD D A SA

75. I rarely go out of my way to act nice.*
   SD D A SA

76. I actively avoid children.*
   SD D A SA

77. I am terrified of gaining weight.
   SD D A SA

78. I would only have sex if I was in a committed relationship like marriage.
   SD D A SA

79. I am only nice to people I like.*
   SD D A SA

80. I like being around children.
   SD D A SA

81. I tend to eat whatever I want.*
   SD D A SA

82. I don’t feel guilty if I lose contact with a friend.*
   SD D A SA

83. I feel uneasy around children.*
   SD D A SA

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84. I would be ashamed if someone thought I was mean.
   SD    D    A    SA
APPENDIX G

INVolVEMENT IN FEMINIST ACTIVITIES SCALE (SZYMANSKI, 2004)

Instructions: Please indicate how much each item describes you and your behavior by circling the appropriate number.

1. I write to politicians and elected officials concerning feminist/women’s issues.


2. I educate others about feminist/women’s issues.


3. I participate in feminist demonstrations, boycotts, marches, and/or rallies.


4. I attend conferences/lectures/classes/training on feminist/women’s issues.


5. I attend feminist organizational, political, social, community, and/or academic activities and events.

6. I am involved in antiracist work.


7. I am active as a feminist in political activities.


8. I am involved in research, writing, and/or speaking about feminist/women’s issues.


9. I am involved in organizations that address the needs of other minority groups (e.g., lesbians, gay men, and bisexual people, people of color, people with disabilities).


10. I am involved in planning/organizing feminist events and activities.


11. I vote for political candidates that support feminist/women’s issues.


12. I donate money to feminist/women’s groups or causes.

13. I am involved in feminist teaching and/or mentoring activities.


14. I am a member of one or more feminist/women’s organizations and/or groups.


15. I read feminist literature.


16. I am a member of one or more feminist listserves.


17. I actively participate in feminist organization, political, social, community and/or academic activities and events.

APPENDIX H

BALANCED INVENTORY OF DESIRABLE RESPONDING-IMPRESSION MANAGEMENT SCALE (PAULHUS, 1984)

Please rate your agreement with each statement on a 1 to 5 scale. Please choose the answer that describes you best.

<table>
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<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not True</td>
<td>Usually</td>
<td>Neither</td>
<td>Usually</td>
<td>Very True</td>
</tr>
<tr>
<td>1</td>
<td>I sometimes tell lies if I have to.*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I never cover up my mistakes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>There have been occasions when I have taken advantage of someone.*</td>
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</tr>
<tr>
<td>4</td>
<td>I never swear.</td>
<td></td>
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<tr>
<td>5</td>
<td>I sometimes try to get even rather than forgive and forget.*</td>
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</tr>
<tr>
<td>6</td>
<td>I always obey laws, even if I’m unlikely to get caught.</td>
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<td></td>
</tr>
<tr>
<td>7</td>
<td>I have said something bad about a friend behind his/her back.*</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>8</td>
<td>When I hear people talking privately, I avoid listening.</td>
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<td></td>
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<tr>
<td>9</td>
<td>I have received too much change from a sales person without telling him or her.*</td>
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<td></td>
<td></td>
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<tr>
<td>10</td>
<td>I always declare everything at customs.</td>
<td></td>
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</tr>
<tr>
<td>11</td>
<td>When I was young I sometimes stole things.*</td>
<td></td>
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</tr>
</tbody>
</table>
12. I have never dropped litter on the street.

13. I sometimes drive faster than the speed limit.*

14. I never read sexy books or magazines.

15. I have done things that I don’t tell other people about.*

16. I never take things that don’t belong to me.

17. I have taken sick-leave from work or school even though I wasn’t really sick.*

18. I have never damaged a library book or store merchandise without reporting it.

19. I have some pretty awful habits.*

20. I don’t gossip about other people’s business.

An * indicates a reverse-scored item.
APPENDIX I

DEMOGRAPHIC & BMI QUESTIONNAIRE

This questionnaire is designed to provide us with information which will help us describe the people who participated in this research. ALL INFORMATION IS CONFIDENTIAL. Please respond to each item by either filling in the blank or circling the appropriate response.

1. How old are you? _____

2. Please indicate your sex. 1 - Male  2 - Female

3. Were you born in the United States? 1 – Yes  2 - No

4. Have you lived in the United States your entire life (excluding vacations and study abroad experiences)?

   1- Yes  2 – No

5. Which state do you live in? (drop down menu)

6. Do you speak English as a first language?

   1 – Yes  2 - No

7. What is your occupation? ____________________

   For how long? ____________________
8. Please indicate the highest level of education you have achieved.

1- Left school before 8th grade
2- Some high school
3- Completed high school
4- Some college
5- Completed college
6- Attended graduate school,
   degree(s)______________________________
7- Other (Please indicate)______________________________

9. If you are currently enrolled in school, please indicate year or level in school_________________________

10. Please indicate your current socioeconomic status.

1- Lower class
2- Working class
3- Middle class
4- Upper middle class
5- Upper class

11. Please use the following to most accurately describe your sexual orientation.

1- Exclusively heterosexual
2- Mostly heterosexual
3- Bisexual
4- Mostly homosexual
5- Exclusively homosexual

12. Please indicate your race.

1- African American/Black
2- White/Caucasian
3- Hispanic/Latin
4- Native American or American Indian
5- Asian/Pacific Islander
6- Multiracial
7- Other
8- Unknown
13. Please indicate your relationship status.

   1- Not involved with anyone currently
   2- Casually dating
   3- Seriously dating
   4- Committed partnership
   5- Married
   6- Separated
   7- Divorced
   8- Widowed

14. Please indicate your height in feet and inches:   ____  ft.    _____ in.

15. Please indicate your weight in pounds:  ______  lbs.

16. Please indicate if you have ever…. (please check all that apply):

   a. Attended psychotherapy (counseling sessions) for any reason before the age of 18
   b. Attended psychotherapy (counseling sessions) for any reason after the age of 18
   c. Used crisis services/crisis hotlines for any psychological problems
   d. Been hospitalized/in inpatient treatment for psychological problems
   e. Attended psychotherapy (counseling sessions) for a problem with an eating disorder (e.g., bingeing, purging, restricting food intake, laxative use, excessive exercise) before the age of 18
   f. Attended psychotherapy (counseling sessions) for a problem with an eating disorder (e.g., bingeing, purging, restricting food intake, laxative use, excessive exercise) after the age of 18
   g. Been hospitalized/in inpatient treatment for a problem with an eating disorder (e.g., bingeing, purging, restricting food intake, laxative use, excessive exercise)

17. Please indicate if you have ever…. (please check all that apply)
   a. Been diagnosed with an eating disorder (e.g., bulimia, anorexia)
   b. Engaged in binge eating
   c. Purged or vomited food after binge eating
   d. Used laxatives to aid in weight loss
   e. Restricted food intake below healthy calorie amounts to lose weight
   f. Engaged in excessive exercise (e.g., more than 1-2 hours per day) to lose weight
APPENDIX J

SELF-IDENTIFICATION AS A FEMINIST (SZYMANSKI, 2004)

1. I consider myself a feminist.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

2. I identify myself as a feminist to other people.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
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</table>

3. Feminist values and principles are important to me.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
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</table>

4. I support the goals of the feminist movement.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
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APPENDIX K
SUPPLEMENTAL QUESTIONS

How did you hear about this study? (Please choose one response)

   ___ Through a student organization
   ___ Through a community organization
   ___ Through another person
   ___ Other (Please specify):________________________________________

To the best of your knowledge, have you previously participated in this study?

   Yes   No   Unsure

Do you have any additional feedback or suggestions about this study for the author?
APPENDIX L

INFORMED CONSENT FORM

You are invited to participate in a study being conducted by Carly Bicheler, M.A., a doctoral student in the Collaborative Program in Counseling Psychology in the College of Arts and Sciences within the University of Akron, Akron, OH.

The project focuses on woman’s self-perceptions, attitudes, and behaviors related to their bodies and the world around them. The researcher is particularly interested in studying the strengths of women and providing new tools that will allow researchers and clinicians to better understand the ways in which women can overcome adversity in their lives.

If you decide to participate, you will be asked to take part in an on-line survey. The survey contains several brief questionnaires and should take about 20 minutes of your time. Participation in the project is completely voluntary. If you agree to participate, you may refuse to answer any questions and may withdraw from the study at any time without penalty. No identifying information about you or the computer you use to complete this survey will be collected from you at any time, allowing your responses to remain completely anonymous. If you are concerned, please make sure you are in a private place while you complete this survey, so that others around you will not see your responses.

There are no anticipated risks to you as a participant in this study. Your responses may help us gain a better understanding of women’s experiences. If you have any questions about the research project, you may reach the researcher, Carly Bicheler, at csb1@uakron.edu, or her advisor, Dr. David Tokar, at 330-972-6845 or dmt5@uakron.edu.

This research project has been reviewed and approved by The University of Akron Institutional Review Board for the Protection of Human Subjects. Questions about your rights as a research participant can be directed to the Director of Research Services, at 1-330-972-7666.

By clicking the link below to continue with the study, you acknowledge that you are over the age of 18 and consent to participate in this project.

Note: You may print this page to keep for future reference.
APPENDIX M
INFORMATION/DEBRIEFING FORM

Overview: Thank you for your participation in this study. The research project you have just participated in focuses on women’s self-perceptions about their bodies and attitudes and behaviors regarding feminism, non-conformity, and gender roles. The present study explores how these factors may protect women from internalizing the idea that they must have a certain type of body, or becoming unhappy with their bodies. Participants must be women over the age of 18, who speak English as a first language and were born and raised in the U.S. The author hopes that the present project will expand the literature on things that women can learn to help them feel better about their bodies. She may pursue avenues for presenting/publishing findings from this study and looks forward to expanding on this research in the future.

Method: All participants' responses are anonymous. Responses will be put into a computer database and examined in aggregate form (everyone's responses averaged together).

Important Reminders: We encourage you to invite other women to participate in this study and direct them to the study’s website. Please do not reveal the purpose of this study or ask individuals who do not meet the above criteria to participate in this study. If you would like to receive a copy of the results by e-mail once the study is completed, you may contact Carly Bicheler, M.A. at csb1@uakron.edu.
APPENDIX N

INSTITUTIONAL REVIEW BOARD APPROVAL LETTER AND APPROVED
INFORMED CONSENT
November 28, 2007

Carly Bicheler
162 Maple St., Apt. F
Springfield, MA 01105

Ms. Bicheler:

Your protocol entitled "The Roles of Self-Determined Non-Conformity, Rejection of Traditional Gender Roles and Endorsement of Feminist Ideals as Resistance Factors against Internalization of the Thin Ideal Body and Body Dissatisfaction" was determined to be exempt from IRB review on November 28, 2007. The IRB application number assigned to this project is 20071127. The protocol represents minimal risk to subjects and matches the following federal category for exemption:

☐ Exemption 1 - Research conducted in established or commonly accepted educational settings, involving normal educational practices.

☐ Exemption 2 - Research involving the use of educational tests, survey procedures, interview procedures, or observation of public behavior.

☐ Exemption 3 - Research involving the use of educational tests, survey procedures, interview procedures, or observation of public behavior not exempt under category 2, but subjects are elected or appointed public officials or candidates for public office.

☐ Exemption 4 - Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens.

☐ Exemption 5 - Research and demonstration projects conducted by or subject to the approval of department or agency heads, and which are designed to study, evaluate, or otherwise examine public programs or benefits.

☐ Exemption 6 - Taste and food quality evaluation and consumer acceptance studies.

Annual continuation applications are not required for exempt projects. If you make changes to the study's design or procedures that increase the risk to subjects or include activities that do not fall within the approved exemption category, please contact the IRB to discuss whether or not a new application must be submitted. Any such changes or modifications must be reviewed and approved by the IRB prior to implementation.

Please retain this letter for your files. If the research is being conducted for a master's thesis or doctoral dissertation, the student must file a copy of this letter with the thesis or dissertation.

Sincerely,

Sharon McWhorter
Associate Director

☑ Approved consent form attached

CC: David Tokar, Advisor
Rosalie Hall, IRB Chair

Office of Research Services and Sponsored Programs
Akron, OH 44325-2102
330-972-7666 • 330-972-6281 Fax
The University of Akron is an Equal Education and Employment Institution
1. Informed Consent

INFORMED CONSENT FORM

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The project focuses on women's self-perceptions, attitudes, and behaviors related to their bodies and the world around them. The researcher is particularly interested in studying the strengths of women and providing new tools that will allow researchers and clinicians to better understand the ways in which women can overcome adversity in their lives.

Participants must be women aged 18 years or older, who speak English as a first language, and were born and raised in the U.S. If you meet this criteria and would like to participate, you will be asked to take part in an on-line survey. The survey contains several brief questionnaires and should take about 20 minutes of your time. Participation in the project is completely voluntary. If you agree to participate, you may refuse to answer any questions and may withdraw from the study at any time without penalty. No identifying information about you or the computer you use to complete this survey will be collected from you at any time, allowing your responses to remain completely anonymous. If you are concerned, please make sure you are in a private place while you complete this survey, so that others around you will not see your responses.

There are no anticipated risks to you as a participant in this study. Your responses may help us gain a better understanding of women's experiences. If you have any questions about the research project, you may reach the researcher, Carly Bicheler, at csb1@uakon.edu, or her advisor, Dr. David Tokar, at 330-972-6845 or dmt5@uakron.edu.

This research project has been reviewed and approved by The University of Akron Institutional Review Board for the Protection of Human Subjects. Questions about your rights as a research participant can be directed to the Associate Director of Research Services, Sharon McWhorter, at 1-330-972-7666.

By clicking the button below to continue with the study, you acknowledge that you are over the age of 18, meet the criteria for the study, and consent to participate in this project.

Note: You may print this page to keep for future reference.

2. Demographic & BMI

How old are you?
In years: ______________________

Please indicate your sex.

☐ Female  ☐ Male

Were you born in the United States?

☐ Yes  ☐ No

APPROVED
IRB 01/28/16

Date 1/28/16

The University of Akron