UNDERSTANDING DELIBERATE SELF-HARM AMONG COLLEGE WOMEN: APPLYING FEMINIST THEORY TO THE AFFECT REGULATION MODEL

by

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ABSTRACT

ANNADA WHEAT HYPES. Understanding deliberate self-harm among college women: Applying feminist theory to the affect regulation model (Under the direction of DR. VIRGINIA GIL-RIVAS)

This study examined potential contributors to self-harm behavior (DSH) among college women aged 18-25 years ($N = 447$). A model explaining DSH lifetime history among young women was tested, bridging feminist thought with the affect regulation model. Specifically, it was hypothesized that greater inauthenticity in relationships and body objectification, more negative attitudes towards emotional expression, less frequent emotional disclosure, and greater difficulties with emotion regulation would contribute to a greater likelihood of DSH. A total of 29.7% ($N = 131$) participants reported a history of DSH. Structural equation modeling (SEM) results resulted in revision of the hypothesized model. The identified model explaining DSH likelihood suggests greater inauthenticity in relationships, greater body objectification, more negative attitudes towards emotional expression, and greater difficulty with emotion regulation contribute to increased likelihood of DSH, after accounting for mental health diagnoses. Results indicate that the internalization of certain pressures for young women (i.e., inauthenticity in relationships and body objectification), as well as factors identified in the affect regulation model (i.e., negative attitudes towards emotional expression and difficulties with emotion regulation), work together in informing the understanding DSH among this population.

DEDICATION

"If your heart catches in your throat, as a bird how she sings."

Cooper Edens

This study is dedicated to Claire, whom I love for her courage, sensitivity, and unique individuality.

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LIST OF ABBREVIATIONS

AFIS	adolescent femininity ideology scale
ATEES	attitudes towards emotional expression scale
BPD	borderline personality disorder
CFA	confirmatory factor analysis
CFI	comparative fit index
DERS	difficulties with emotion regulation scale
DSH	deliberate self-harm
EAC	emotions as a child scale
ESDS	emotional self disclosure scale
HSCL-25	Hopkins symptom checklist inventory-25
ML	maximum likelihood
NSSI	non-suicidal self-injury
PGFI	parsimony goodness-of-fit index
RMSEA	root mean square error of approximation
S-B	Satorra-Bentler
SEM	structural equation modeling
UNCC	University of North Carolina at Charlotte

CHAPTER 1: INTRODUCTION

Students face a variety of challenges when they enter college, including adjusting to life away from home, making new friends, and managing multiple demands for their time (Dyson & Renk, 2006). College women face further challenges specific to the gender role pressures inherent in today's society, including pressures to be thin, attractive, smart, friendly, and outgoing (Muehlenkamp, Swanson, & Brausch, 2005). The college environment provides opportunities to meet new people, pursue a career, explore new friendships and romantic relationships, and further develop one's self-identity. For some, this is a wonderful opportunity for self-expression; for others, social and cultural pressures may seem overwhelming, as these pressures can be too burdensome to manage (Ferrier & Martens, 2008).

Young women who are feeling overwhelmed by these pressures may employ unhealthy coping strategies in an attempt to alleviate stress and gain temporary relief. For example, some college students engage in excessive amounts of alcohol consumption, use illicit substances, binge eat or excessively restrict their diet, engage in risky sexual behaviors, or engage in deliberate self-harm (Caldeira, Arria, & O'Grady, 2008; Clements, 1999; Ferrier & Martens, 2008; Gratz, 2006; Wetter, Kenford, & Welsch, 2004). While the occasional use of certain maladaptive behaviors to cope is fairly common among college women (Clements, 1999), these behaviors can be potentially lethal. One such behavior, deliberate self-harm (DSH) may be a growing behavioral trend

among college populations (Gratz, 2006) and is associated with a range of psychosocial difficulties (King & Apter, 2003). While links between individual risk factors and DSH have been established (Brown, Comtois, & Linehan, 2002; Gratz, 2006), sociocultural risk factors for DSH have been largely ignored. This study examines the contribution of sociocultural pressures (i.e., adherence to ideologies of femininity) and psychological factors (i.e., beliefs regarding emotional expression, the expression of emotions, and difficulties with emotion regulation) to DSH among young college women. Before examining the factors of interest in this study, a description of DSH is provided.

1.1 Deliberate Self-Harm

Deliberate self-harm (DSH) is often defined as a complex group of behaviors that results in the deliberate destruction of one's own body tissue and is performed without an intent to die (Derouin & Bravender, 2004). The most frequent form of DSH consists of repeated superficial cutting with a sharp object, typically a razor blade, scissors, needle or pin, or sharp glass (Derouin & Bravender, 2004). Many other forms of DSH have also been documented, such as burning, interfering with wound healing, inserting objects under the skin, biting and abrading the body, hitting the body with objects, and punching hard objects or oneself (Zila & Kiselica, 2001). The most common sites of DSH are arms, wrists, ankles, lower legs, and less noticeable places such as the abdomen, inner thighs and underarms (Derouin & Bravender, 2004).

The term "deliberate self-harm" is distinguished from other definitions of self-harm, including repetitive self-harm among the mentally retarded (i.e., stereotypic self-mutilation) and more extreme forms of bodily mutilation that occurs during psychosis (i.e., major self-mutilation; Derouin & Bravender, 2004). These definitions are mutually

exclusive, and DSH in particular was the focus of this study. Further, DSH excludes behavior that is suicidal in nature, making the distinction between self-harm completed with and without intent to die. The difference is critical, because research suggests that DSH and suicide attempts are distinct in that they consist of different behaviors (e.g., superficial cutting versus deep cutting; Skegg, 2005), have different etiologies (Ross & Heath, 2002), and serve different purposes (Suyemoto, 1998). However, research focusing on DSH has been complicated by the use of diverse terms to describe non-suicidal behavior that inflicts tissue damage, such as "self-harm," "self-mutilation," "self-cutting," "self-injury" (Laye-Gindhu & Schonert-Reichl, 2005), and "nonsuicidal self-injury" or NSSI (Nock & Mendes, 2008). The semantic confusion regarding the terms used to describe self-injury reflects a lack in consensus about how to conceptualize and operationalize self-harm (Prinstein, 2008). This study utilizes the term "deliberate self-harm," as this terminology emphasizes the deliberate, non-suicidal nature of the behavior, is more inclusive than terms specifically referring to cutting, and avoids the stigma associated with the term "mutilation."

Studying DSH among young adults is of importance, as it appears to begin in adolescence (Favazza, 1998), is more common among adolescents and young adults (Klonsky & Olino, 2008), and may become a sustained habit throughout young adulthood (Simeon & Favazza, 2001). In fact, data trends show high rates of DSH among adolescents and young adults; studies suggest 15% to 39% of youths in community samples (Laye-Gindhu & Schonert-Reichl, 2005; Lloyd, 1997) and up to 37% of college students (Gratz, 2006) report a history of DSH. However, these estimates are preliminary, and currently a reliable estimate of the prevalence of DSH among

community samples of adolescents and young adults is lacking (Klonsky, Oltmanns, & Turkheimer, 2003; Whitlock, Powers, & Eckenrode, 2006). Given the serious nature of DSH and prevalence estimates during young adulthood, researchers have called for an increase in our understanding of DSH among community samples during this critical developmental period (e.g., Laye-Gindhu & Schonert-Reichl, 2005).

DSH is an important area of research, as deaths and injuries associated with violent and self-injurious behavior among youth are a major public health problem in the United States (Centers for Disease Control and Prevention [CDC], 2005). Self-harm, both suicidal and non-suicidal in nature, take a heavy toll on the health of America's youth (CDC, 2004). It is estimated that, in 2002, 124,409 visits to U.S. emergency departments were made after attempted suicides or other self-harm incidents among persons aged 10-24 years (CDC, 2004). However, many more individuals may be engaging in DSH, as self-harmers frequently do not seek treatment in a hospital nor report the behavior to professionals, as they often feel embarrassed or ashamed (Skegg, 2005).

Further, DSH may be a growing trend; one study found that DSH rose among women in England by 42.2% from 1984 and 1994, as indicated by hospital referral rates (i.e., from 463 episodes in 1984 to 749 episodes in 1994; Hawton, Fagg, & Simkin, 1997). Also, clinicians in the U.S. have reported an increase in the treatment of DSH among young women (Pipher, 1994). Other researchers are proposing that DSH may be a growing trend among younger generations (Klonsky et al., 2003) that has been overlooked by researchers until recently. Since 2001, over 400 identified online message boards were created that dealt specifically with DSH (Whitlock et al., 2006). A majority of these chat rooms' members reported being between the ages of 14 and 20 years

(Whitlock et al., 2006), suggesting adolescents and young adults are turning to each other for support, while adults may not be fully aware of the behavior (Liu, Sun, & Yang, 2008). Further, self-harming behavior has been reported among celebrities (e.g., Angelina Jolie, Lindsey Lohan, and Amy Winehouse; Eliscu, 2007; Mander, 2008; Walls, 2006), potentially increasing young adults' awareness of the behavior in the media. Coverage of specific means of DSH utilized by celebrities is unfortunate, since preliminary studies point to the influential role the media plays in potentially affecting or prompting DSH behavior among young adults (Zahl & Hawton, 2004).

In fact, research that has investigated how adolescents and young adults first learn of DSH and has identified media exposure as a primary source, including news reports, magazine articles, songs, and music videos, in addition to peer interaction (De Leo & Heller, 2008; Zahl & Hawton, 2004). Social learning cannot fully explain why young adults turn to DSH over other, more socially-accepted coping mechanisms, but the behavior may originate among vulnerable youth who first learn of the behavior and attempt to imitate it. In fact, imitation and contagion are often cited as primary mechanisms involved in social learning and are used to explain clusters of non-fatal suicidal behaviors among groups of individuals (de Leo & Heller, 2008). Thus, if rates of DSH are on the rise and if DSH originates, in part, via social learning, then this combination may indicate that DSH is indeed an important area of research.

Current prevalence estimates and increasing rates of DSH are alarming, since DSH has been linked to a wide range of psychiatric and psychosocial difficulties. In fact, among self-harmers receiving treatment in hospitals, DSH is associated with major depression, anxiety, drug abuse, eating disorders, borderline personality disorder (BPD),

post-traumatic stress disorder (PTSD), aggression, and high-risk sexual activity, as well as future risk of suicide (Fliege, Kocalevent, & Walter, 2006; King & Apter, 2003; Skegg, 2005) and unintentional death (Kehrberg, 1997). Among patients hospitalized for major mental disorders, DSH was associated with higher levels of depression, anxiety, hostility, and a combination of more perceived stress, lower optimism, and lower self-efficacy (Fliege et al., 2006). In a sample of college women, self-harm was associated with increased body shame, depressive symptomatology (Muehlenkamp et al., 2005), difficulties expressing emotions to others (Gratz, 2006), and difficulties utilizing problem-solving and social-support coping strategies (Andover, Pepper, & Gibb, 2007). These preliminary findings suggest that self-harming individuals from both clinical and community samples experience significant psychiatric symptomatology and psychological distress.

In addition to a potential rise in rates of DSH, current research suggests that the characteristics of those engaging in self-harming behavior have changed (e.g., Hawton et al., 1997; Machoian, 2001; Pipher, 1994). In past decades DSH was commonly found in inpatient psychiatric populations, whereas many self-harming adolescents and young adults in more recent times have less noticeable symptoms of mental disorder or difficulty (Favazza, 1998; Machoian, 2001). Much of the behavior may go unnoticed, as these individuals frequently participate in social and academic activities, appear to be outgoing, high-achieving, and likeable (Machoian, 2001). Further, it has been proposed that college students may be a particularly at-risk population (Fliege et al., 2006), potentially due to new stressors involved in entering a college environment. For example, one study found 37% of women in a college sample reported a history of DSH (Gratz,

2006). Although untested, it may be reasonable to hypothesize that rates of DSH may be highest when students transition to college and during times of increased stress (e.g., before and during exams, after a break-up). Thus, although self-harmers may experience increased rates of distress (e.g., depressive symptoms; Muehenkamp et al., 2005), DSH may be relatively unrecognized among the college population, and patterns of DSH during college are unknown. Further, few studies have examined potential risk factors related to ethnicity, race, or sexual orientation, although preliminary research in New Zealand and London suggest Asian, Hispanic, and Caucasian samples are at a higher risk than African American samples (Bhogal, Baldwin, Hartland, & Nair, 2006; Bhugra, Desai, & Baldwin, 1999), as are participants who report same-sex romantic attraction rather than strictly opposite-sex romantic attraction (Skegg, Nada-Raja, Dickson, Paul, & Williams, 2003). Thus, few studies have empirically tested theoretical models to understand DSH among non-psychiatric, community (Chapman, Gratz, & Brown, 2006) nor diverse samples of young adult college students in this country.

Although theoretical models have not been widely tested among community samples, researchers have conceptualized DSH through various functional models (Nixon, Cloutier, & Aggarwarl, 2002; Suyemoto, 1998). Models that have been proposed to explain DSH include the environmental and interpersonal model, where DSH is rewarded by responses in the environment, such as with increased attention or as detraction from other problems (Messer & Fremouw, 2008; Suyemoto, 1998). Another model is the experiential avoidance model which proposes that DSH is a means to escape intense or overwhelming negative emotions (Chapman et al., 2006). The anti-suicide drive model conceptualizes DSH as a compromise between life and death and an attempt

to avoid suicide (Firestone & Seiden, 1990). Neurobiological models theorize that high-circulating levels of beta-endorphins (which dull the perception of pain) may be a risk factor for DSH, as individuals with abnormally high endorphin responses may feel less pain, and, in some cases, mild pleasure, after engaging in DSH (Sandman & Hetrick, 1995). Finally, the affect regulation model conceptualizes DSH as an attempt to express or cope with overwhelming emotional distress that can not be expressed verbally (Nixon et al., 2002; Suyemoto, 1998).

Similarities exist between the various models explaining DSH, including concepts of anger, reaction to abandonment, and lack of effective self-soothing techniques (Suyemoto, 1998); however, many researchers view the primary purpose of self-harm as an attempt to regulate affect (Suyemoto, 1998), supporting the affect regulation model. Further, individuals who engage in self-harm most frequently report emotional relief and regulation as an underlying motivation for engaging in DSH (Brown et al., 2002; Nixon et al., 2002), also supporting this model. It should be noted that DSH may serve different purposes for different individuals in different contexts (Suyemoto, 1998), but the most common explanations of DSH (i.e., emotional relief and tension reduction) are best understood through the affect regulation model. Based on these findings, this study is guided by the affect regulation model described in more detail below. The description of the affect regulation model begins with this study's conceptualization of emotion regulation, followed by a description of the role emotion regulation plays in DSH. It should be noted that "affect" and "emotion" are used interchangeably here, although research regarding the general concept of emotion regulation typically utilizes "emotion,"

while research regarding the affect regulation model specific to DSH typically utilizes the term "affect."

1.1.2 Emotion Regulation

The conceptualization of emotion regulation used to guide this study places emphasis on the control of behavior during the experience of negative emotions, rather than emphasizing the control of negative emotions themselves (Gratz, 2007). The line of reasoning used in this study is based on research suggesting that attempts to avoid or control negative emotions may not actually be healthy or effective (Salters-Pedneault, Tull, & Roemer, 2006). Although a focus on valuing and accepting emotions in psychology is not new, much research regarding emotion regulation has focused on avoiding or controlling the experience negative emotions rather than accepting and learning from them (Blackledge & Hayes, 2001). In contrast to prior emotion regulation theories, acceptance-based perspectives emphasize the importance of accepting unwanted thoughts and feelings and fostering more adaptive behavior patterns during the experience of emotion (Eifert & Forsyth, 2005; Hofmann & Asmundson, 2008; Hayes, 2004, 2005), as the experience of negative emotions is thought to be helpful and valuable (Blackledge & Hayes, 2001). Thus this approach emphasizes controlling behavior (e.g., impulsive or risky actions) during the experience of negative affect, rather than inhibiting the experience or expression of the emotions themselves (Gratz & Roemer, 2004).

In accord with this research, this study uses a definition of emotion regulation that focuses on adaptive responses to emotional distress and defines emotion regulation as a multi-faceted construct involving: a) an awareness and understanding of emotions; b) acceptance of emotions; c) emotional clarity; d) positive beliefs about one's ability to

handle negative emotions; and e) the ability to engage in goal-directed behavior, and refrain from impulsive behavior, when experiencing negative emotions (Gratz & Roemer, 2004). This multi-dimensional definition implies that effective emotion regulation involves flexibility in utilizing emotion regulation strategies in order to meet the demands of the environment while acknowledging and accepting one's emotional responses and processes (Cole, Michel, & Teti, 1994; Gratz & Roemer, 2004). Thus, deficits in one or more dimensions of emotion regulation limit an individual's flexible use of emotion regulation strategies and are seen as indicative of regulation difficulties (Gratz & Roemer, 2004). In this way, difficulties with emotion regulation and effective emotion regulation can be seen as ends of a single continuum, ranging from maladaptive to adaptive responses to emotional distress, with multiple dimensions composing each construct.

1.1.3 Emotional Inexpressivity

Since attempts to avoid or control emotions, rather than awareness and acceptance, seems to be a key obstacle in the healthy processing of emotion, individuals who tend to inhibit the expression of emotion may be more vulnerable to difficulties in emotion regulation. Over time, the suppression and over-control of negative emotions may inadvertently lead to intense and overwhelming emotional experiences (Gratz, 2007; Salters-Pedneault et al., 2006). Just as attempting to avoid thinking about a white bear inadvertently causes just the opposite (Wegner, Schneider, & Carter, 1987), inhibiting the verbal expression of negative emotions while experiencing them is associated with increases in sympathetic activation of the cardiovascular system, reflective of an increased emotional response (Gross & Levenson, 1997). Other research has

demonstrated that efforts to avoid, suppress, and control negative emotions can paradoxically heighten the frequency and severity of emotional experiences (Salters-Pedneault et al., 2006).

It should be noted that certain forms of emotional expression are not always beneficial, and an emphasis on accepting and acknowledging one's emotions does not equate to verbally expressing them to others in all situations. For example, venting about one's problems to others without attempting to process them or identify problem-solving approaches may lead to rumination and increased distress (Stanton et al., 2000). Similarly, in many situations verbally expressing one's anger to another person may not be a socially acceptable response, and in this case, an emotion regulation strategy focusing on engaging in goal-directed behavior rather than engaging in impulsive behavior (e.g., yelling or throwing things) may be more adaptive.

In sum, an unwillingness to express one's emotions to others may be indicative of a pervasive pattern of emotional inflexibility, and this inflexibility is thought to increase one's vulnerability to experiencing difficulty managing negative emotions (Gratz & Roemer, 2004). An emphasis on control and suppression, rather than acceptance and awareness, of negative emotions may defeat processes that facilitate healthy processing of emotion (Gratz & Roemer, 2004). Thus, a tendency to avoid the outward expression of negative emotions (i.e., emotion inexpressivity) may be a risk factor for eventual difficulties with emotion regulation (Gratz, 2007).

Individuals' difficulties with emotion regulation are of particular relevance to DSH, as difficulties expressing and regulating emotions are thought to be key in its occurrence and frequency (Gratz, 2006, 2007). This line of thinking is based primarily on

Linehan's (1993) work investigating the role emotion plays in DSH. As an influential theorist in the understanding of DSH, Linehan (1993) proposed that difficulties with emotion regulation underlie core features of borderline personality disorder (BPD), including self-harm. She proposed that individuals with BPD experience intense emotions that they have difficulty regulating, and self-harm may be a by-product of these difficulties (Linehan, 1993). Current research supports her theory, as studies find that DSH may serve as an emotion regulation strategy among individuals without alternative coping strategies (Gratz, 2003; Klonsky, 2007). Further, among self-harmers, difficulties expressing negative emotions have been shown to be associated with increased rates of self-harm (Gratz, 2006). Based on these ideas, the affect regulation model was first articulated by Suyemoto (1998) as a specific approach to understand how difficulties with emotion regulation contributes to and maintains DSH.

1.1.4 The Affect Regulation Model and DSH

Specifically, the affect regulation model proposes that DSH can be viewed as an attempt to cope with overwhelming emotional distress (Nixon et al., 2002), that is associated with inhibited emotional expression and difficulties with emotion regulation (Gratz, 2007; Suyemoto, 1998). According to this model, DSH is part of a cycle where individuals experience difficulty or avoid expressing negative feelings (Suyemoto, 1998). Without effective means of expression, these emotions may become intense and overwhelming, and individuals may engage in DSH as a way to express, control, or validate these emotions (Nixon et al., 2002). However, the immediate emotional relief after DSH may be short-lived, and negative self-conscious emotions occurring after DSH

may exacerbate emotional distress and prompt another act of self-harm. This model is best understood by first considering the emotional antecedents for DSH.

When distressed, individuals who engage in DSH may experience difficulty expressing certain emotions. In fact, specific emotions preceding DSH have been identified, including anger, frustration, loneliness, and sadness, depression, and deep despair (Favazza & Conterio, 1989; Laye-Gindhu & Schonert-Reichl, 2005; Ross & Heath, 2002). Despite findings suggestive of increased levels of anger and hostility, both intrapersonally and interpersonally, among individuals who engage in self-harm, research is limited regarding the specific role of anger in youth who self-harm (Laye-Gindhu & Schonert-Reichl, 2005). Krasser and colleagues have hypothesized that intrapersonal anger is a chief precursor to DSH, including feelings of self-blame and self-loathing (Krasser, Rossmann, & Zapotoczky, 2003). Findings from Laye-Gindhu and Schonert-Reichl's (2005) research support this theory, as women who self-harm often report self-hatred and self-punishment as emotional antecedents for the behavior. Others have speculated that DSH may be a way to achieve relief from anger among individuals who cannot express anger towards others or cannot decrease anger cues in their social environments (Chapman & Dixon-Gordon, 2007). Since DSH has been posited as a maladaptive mechanism for expressing emotions that cannot be expressed verbally or otherwise (Suyemoto, 1998), it seems likely that individuals engaging in DSH may have difficulty expressing specific emotions which precede these behaviors, including anger, sadness, frustration, and loneliness.

The next step in the cycle includes the experience of DSH, and research has begun to shed light on how acts of self-harm are experienced. While engaging in self-

harm, individuals often experience a blunted pain response (Hilt, Cha, & Nolen-Hoskema, 2008) potentially due to a higher threshold for pain (Russ, Roth, & Lerman, 1992). Some individuals even report experiencing a sense of pleasure during DSH, potentially due to abnormal neurobiological responses (i.e., an over-production of endorphins) as the body attempts to reduce pain (Sandman & Hetrick, 1995). Additionally, individuals often report significant emotional relief, emotional control (Ivanoff & Hayes, 2001), and reduction in the negative affective states which preceded the behavior during and immediately after engaging in DSH (Laye-Gindhu & Schonert-Reichl, 2005). In fact, self-harmers have described the function of DSH in reducing emotional tension quite articulately, as illustrated by the following statement from a young woman (Himber, 1994, pp. 623):

> It's like a relief. I do it every couple of weeks just to get a relief…from pressure that builds up inside…[I] just, just feel that there's a pressure building up inside of you that you have to do something about. That you feel like you're going to explode if you don't. And cutting is a way to release that.

Intense negative emotions may be immediately alleviated by DSH, but the consequences of the behavior may lead to increase intrapersonal and interpersonal distress (Gratz, 2007). Following the immediate emotional relief caused by self-harm, individuals often report an increase in negative self-conscious emotions, such as shame, guilt, and disgust (Laye-Gindhu & Schonert-Reichl, 2005) as well as social isolation (Favazza, 1998). Paradoxically, these negative self-conscious emotions following DSH may exacerbate negative emotional arousal that preceded the act of self-harm (Leibenluft, Gardner, & Crowdry, 1987). This may lead to another experience of intense negative emotions towards the self and prompt another act of self-harm (Leibenluft et al., 1987). Thus, when the sense of relief and control is short-lived, DSH may be a coping

mechanism used to manage the recurrence of negative emotions (Vanderhoff, 2004). In fact, some researchers have conceptualized DSH as an "adaptive" response among adolescents without adequate coping mechanisms to manage emotions in more healthy ways (Evans, Hawton, & Rodham, 2005). This pattern of DSH as a means for temporary relief, resulting in increased negative self-conscious feelings, contributing to increased intrapersonal anger, frustration, and sadness, finally triggering another act of self-harm, may result in a cycle of DSH as conceptualized in this study (See Figure 1).

Thus, according to the affect regulation model, emotional inexpressivity may lead to an overwhelming experience of tension, and without alternative coping mechanisms, DSH may be used as an emotion regulation strategy to gain temporary emotional relief and control (Gratz, 2003; Ivanoff & Hayes, 2001; Klonsky, 2007; Laye-Gindhu & Schonert-Reichl, 2005). Although the link between emotional inexpressivity, difficulties with emotion regulation, and DSH has been established (e.g., Brown et al., 2002; Gratz, 2006), risk factors for a tendency to avoid expressing negative emotions have been largely ignored. In this study, I propose that beliefs regarding emotional expression and sociocultural norms may be overlooked constructs that are related to emotional inexpressivity, difficulties with emotion regulation, and DSH. As such, beliefs regarding emotional expression and hypothesized links to DSH are described below.

1.1.5 Attitudes towards Emotional Expression

Beliefs about emotional expression have been found to influence an individual's willingness to discuss emotions with others (Joseph, Williams, & Irwing, 2004), making them potentially relevant constructs in the study of DSH.

An individual's beliefs about emotional expression are often shaped by sociocultural norms for the expression of emotions, which are termed display rules (Ekman, 1984). Display rules are defined by Ekman as "over-learned habits about who can show what emotion to whom… (for example) males should not cry; females (except in a maternal role) should not show anger" (Ekman, 1984, p. 320). As illustrated in Ekman's description of display rules, many expectations for emotional expression appear to differ for males and females, implicating gender-based stereotyped beliefs regarding emotional expression. For example, one study found that a college sample of participants believed that women and men experience emotions to similar degrees (i.e., have similar physiological sensations and cue appraisals), but believed men and women express emotions differently (Fabes & Martin, 1991). Specifically, study participants thought women express sadness, love, and fear more often than men, while men are express anger more often than women (Fabes & Martin, 1991). Because participants emphasized the *expression* of emotion rather than the *experience* of emotion suggests that participants believe there are socialized differences in men and women's emotional expression, rather than biological sex differences in the experience of emotion (Plant, Hyde, & Keltner, 2000).

Although many Americans think women are often more "verbal" and "emotional" than men (Barrett, Lane, Sechrest, & Schwartz, 2000), women may be at a disadvantage when expressing certain emotions compared to men. Namely, display rules for women often limit the expression of emotions which threaten interpersonal relationships, such as anger, frustration, and jealously (Brody, 1999). For example, anger communicates a message of power or dominance in response to a perceived obstacle or goal, and is often

perceived by others as a threat or warning (Sorber, 2001). Stereotypes for emotional expression may be reinforced by social responses, depending on how the emotional expression is received by others. In particular, young women seem to be given the message that the expression of certain emotions, such as anger, is somehow divergent from the feminine norm (DiLazzero, 2003). Although researchers are beginning to note that certain expressions of anger among young women can represent agency and assertiveness within a context of oppression (e.g., Brown, 1998), authority figures in the lives of ordinary young women often do not respond positively to expressions of anger. Indeed, research has found that, when African American middle school females were outspoken and assertive, teachers labeled them as "loudies" rather than "ladies" and enforced strict discipline (Morris, 2007).

Due the stereotypes of and reactions to the expression of certain emotions, women may adopt certain attitudes towards expressing emotions. For example, individuals may believe that expressing negative emotions will lead to social rejection or that expressing negative emotions is a sign of weakness (Joseph et al., 2004). Thus, young women who have more negative beliefs about expressing negative emotions (e.g., it may lead to social rejection) may avoid expressing anger and frustration, in an attempt to avoid threatening the status of interpersonal relationships (Brody, 1999; Howard, Blumstein, & Schwartz, 1986). Further, women may be less willing to verbally express threatening emotions in the context of relationships that they highly value, such as with romantic partners and close friends. These beliefs may be adaptive socially, but may be a maladaptive cognition potentially increasing one's vulnerability to DSH. Thus, a more negative attitude towards expressing negative emotions to others may contribute to a tendency to avoid expressing

negative emotions in interpersonal relationships, which may lead to difficulties with emotion regulation.

Although research has focused on emotional processes that contribute to DSH (e.g., Gratz, 2007), sociocultural contexts that discourage the expression of negative emotions and the role these contexts may play in DSH have been largely overlooked. This study therefore examines specific sociocultural factors that may contribute to beliefs regarding emotional expression, emotional inexpressivity, difficulties with emotion regulation, and an increased likelihood for DSH. Since little research has addressed sociocultural factors of potential importance for DSH, this study is guided by findings regarding proximal interpersonal contextual factors associated with DSH.

1.1.6 Proximal and Distal Risk Factors for DSH

Proximal interpersonal risk factors for DSH among young women involve a number of difficulties experienced during childhood, such as emotional, physical, and sexual abuse (e.g., Dubo, Zanarini, & Lewis, 1997; Gratz, 2006; Skegg, 2005), as well as interpersonal problems in the family of origin, including parent-child discord and poor bonding between parent and child (Gratz, Conrad, & Roemer, 2002; Romans, Martin, & Anderson, 1995). Of these risk factors, abusive childhood experiences have been a central focus for many researchers, based largely on Linehan's early work (i.e., Linehan, 1993). Namely, she proposed that "invalidating environments" are familial contexts which emphasize the inhibition of displays of negative affect and where the communication of private experiences are frequently disregarded, trivialized, or punished (Linehan, 1993). She proposed that invalidating environments contribute to the development of self-harm among individuals with borderline personality disorder (BPD;

Linehan, 1993). In fact, her theories have been supported by empirical findings among college women with and without BPD (e.g., Gratz, 2006; Gratz & Roemer, 2004). For example, Gratz (2006) found that, among female college students, the effects of childhood physical or sexual abuse were exacerbated by difficulties outwardly expressing one's emotions and contributed to a higher likelihood for DSH. Similarly, Tantam and Whittaker (1992) theorize that it may not simply be the abuse that contributes to a risk for self-harm, but it is the context of pathological family relationships (e.g., insecure attachments, poor bonding) that increases one's risk for DSH. Thus, a common thread among most of these identified proximal interpersonal risk factors for DSH includes unhealthy family relationships and environments that discourage the expression of emotions to others.

Even though proximal interpersonal risk factors for the development of DSH have been identified, distal sociocultural influences have been relatively unexplored. By investigating potential distal risk factors for DSH, a broader and more comprehensive understanding of the context in which this behavior develops can be gained, in accord with Bronfenbrenner's (1999) ecological approach to understanding development and adjustment. According to Brofenbrenner's (1999) ecological model, social contexts including family environments, peer relationships, media messages, and social norms, can have a profound influence on individuals and their developmental trajectory. Thus, DSH cannot be fully understood from an exclusive focus at the individual level, as this approach will overlook larger, distal, sociocultural influences potentially relevant to DSH. Additionally, understanding sociocultural factors implicated in the development of DSH can shift the focus from an individual's "maladaptive" behavior to considering the

potentially aversive context in which self-harm occurs and the social factors that may contribute to these behaviors. Prevention and treatment efforts can supplement current individual-level treatments (e.g., addressing difficulties with emotion regulation among self-harmers; Gratz, 2007) by targeting distal influences potentially contributing to DSH (e.g., developing college campus campaigns to encourage women's self-expression in healthy ways).

This study focuses on one distal sociocultural influence, namely pressures for women to inhibit the expression for certain negative emotions. As stated previously, women are often discouraged from expressing emotions which threaten interpersonal relationships, such as anger, frustration, and jealously (Brody, 1999). These pressures are especially prevalent within the context of a western society that does not encourage girls and women to express themselves fully, and women's "loss of voice" has been a central focus for several feminist researchers in psychology (e.g., Brown & Gilligan, 1992; Harter, Waters, & Witesell, 1998; Shaw, 2002). Brown and Gilligan (1992) hypothesize that sociocultural pressures for young women are at the root of girls' loss of voice and can lead them to experience a range of psychosocial difficulties. Harter, Waters, and Whitesell (1997) elaborate, stating girls must abandon individual commitments to self-sufficiency and self-authenticity in order to be responsive to others and abide by conventions for feminine behavior. Pipher (1994) echoes these sentiments, asserting that adolescent females "experience a conflict between their autonomous selves and their need to be feminine" and stop thinking, "Who am I? What do I want?" and start thinking, "What must I do to please others?" (p. 21-22).

Of relevance for DSH among young women, a "loss of voice" may be one way to conceptualize the emotional inexpressivity and difficulties with emotion regulation which often accompanies DSH. For example, Laye-Gindhu and Schonert-Reichl (2005) suggest that women may be more likely to engage in DSH when directing angry emotions at the self rather than expressing them to others, and the motivational factors for DSH common among girls (e.g., despair, depression, self-punishment, and self-hatred) are consistent with gendered socialization practices that are thought to encourage females to direct their negative feelings inward (Laye-Gindhu & Schonert-Reichl, 2005). Additionally, Suyemoto (1998) hypothesizes that that DSH may be preceded by anger redirected from another to the self out of fear of what the expressed anger will do to the other person and the interpersonal relationship. Thus, this study proposes that certain distal influences (i.e., the sociocultural pressures for young women avoid expressing negative emotions) are related to the proximal risk factors of DSH (e.g., familial contexts in which the sharing of emotions is discouraged). In other words, both invalidating environments and sociocultural pressures for young women may discourage the expression of certain emotions, potentially contributing to a higher likelihood for emotional inexpressivity, difficulties with emotion regulation, and DSH.

Research implicating sociocultural pressures for young women in the development of psychological distress is not new, as internalizing symptomatology (e.g., depression and anxiety) has been linked to pressures for women to avoid openly expressing negative or threatening emotions (Crick & Zahn-Waxler, 2003; Laye-Gindhu & Schonert-Reichl, 2005). As DSH is often viewed as a type of internalization (Laye-Gindhu & Schonert-Reichl, 2005), this study draws upon prior research linking

internalizing disorders with sociocultural pressures for young women (e.g., Laye-Gindhu & Schonert-Reichl, 2005). Specifically, research focusing on sociocultural pressures for young women and the development of psychological distress often focuses on expectations related to femininity and behavioral expectations specific to females (e.g., Tolman & Porche, 2000). In fact, researchers in western societies have begun to conceptualize these sociocultural pressures as "ideologies of femininity," as this terminology reflects expectations based on their femininity and emphasizes the patriarchal society from which these expectations originate (e.g., Tolman, Impett, & Tracy, 2006). The background for examining ideologies of femininity of focus in this study is described below.

1.2 Ideologies of Femininity

Conceptualizations of ideologies of femininity have had a remarkable conception and history, beginning with early research on gender, and more recently, focusing on the oppressive nature inherent in some gender role beliefs. A brief description of this history will be provided in order to lend support to this study's conceptualization of gender roles.

Early research on gender makes the distinction between *sex* and *gender* (Unger, 1979). While *sex* refers to the biology, or the set of an individual's biological mechanisms, *gender ideologies* can be defined as "the network of psychological and socio-cultural factors that are involved in an individual's sex role orientation" (Unger, 1979, p.1086). In other words, gender is what culture makes out of biological sex (Unger, 1979). Traditional gender ideologies are those sets of factors, or behavioral norms, typically associated with a particular sex (Basow & Howe, 1980; O'Grady, Freda, & Mikulka, 1979), often termed "masculine" and "feminine." This is not to say that women

and men are simply "naturally" predisposed to behave in certain ways; societal and individual gendered expectations for women and men influence how they think and act, resulting in individual variations in both personal gender ideologies and stereotypically masculine or feminine behaviors (Butler, 1990). In this way, gender is often viewed as a fluid construct, one that is influenced and adapted by individuals responding to (and often subverting) sociocultural norms, redefined continually and preformed daily through dress, speech, hairstyle, and body language, for example. In other words, gender is performative; as Judith Butler (1990) states, "Gender is always a doing…There is no gender identity behind the expressions of gender; that identity is performatively constituted" (p. 33).

Understanding gender and how gender-related practices influence individuals is important, because gender affects multiple facets of living. For example, gender-related practices can influence behavior, thoughts, and feelings in individuals, can affect interpersonal interactions, and help determine the structure of social organizations (Unger, 1979). Also, gender-role norms are an integral factor in how individuals construct and continually reconstruct their identity (e.g., Bem, 1974) and affect how individuals are judged and treated by others in society (Unger, 1979). However, psychological research often equates participants' biological sex with gender (e.g., Ogletree, Worthen, & Turner, 2006), potentially leading to misunderstandings of gendered behavior and further stereotyping of women and men. Thus, investigating how and why adherence to gendered expectations affects psychological outcomes is an important area of research, as understanding gender may help dispel negative societal

stereotypes of women and men based on research inappropriately equating sex with gender.

However, exactly what constitutes "masculinity" and "femininity" has been quite elusive to conceptually or operationally define and measure. Beginning with the first masculinity-femininity test in 1936 (i.e., Terman & Miles, 1936) and also with the rise of the feminist movement, the interest in gender ideologies among psychological researchers has grown. Many individuals are capable of discussing their own masculinity or femininity, often citing their role in the family or observable physical characteristics (Spence & Sawin, 1985). Nevertheless, a formal definition of the concepts of masculinity and femininity within psychological research has been viewed as either unnecessary or impossible to define (Spence & Buckner, 1995).

Potentially due to the elusive nature of defining these constructs, previous conceptualizations of masculinity and femininity within psychological research have treated them in various ways. For example, previous research has consisted of treating masculinity and femininity as psychological opposites (e.g., Terman & Miles, 1936), personality traits (e.g., Bem, 1974), and global constructs reflective of relatively stable identities (e.g., Spence, Helmreich, & Stapp, 1974). In contrast to these approaches, this study conceptualizes femininity as a socially constructed set of ideologies, in accordance with social construction theory (e.g., Gergen, 1985). Social construction theory of femininity and masculinity suggests that social constructs or cultural scripts directly influence the development of ideologies of femininity, which are inherently complex and involve multiple domains (Mahalik, Morray, & Coonerty-Femiano, 2005; Tolman & Porche, 2000). For example, gender ideologies involve a wide variety of factors,

including personality traits, attitudes, behaviors (Simpson, 1985), psychological dispositions, and appearances (Banerjee, 2005). From this perspective, females of all ages often engage in many different sociocultural domains that define traditional feminine roles (e.g., to be physically attractive, to be corporative, to engage in domestic activities) (Mahalik et al., 2005). Thus, these various sociocultural domains of attitudes, preferences, and behaviors that distinguish between individuals in a given culture do not contribute to a single, uni-factorial concept of gender but to a constellation of a number of relatively independent factors (Spence, 1993). Thus, as one could imagine, there are numerous ways individuals compose their own gender ideologies, weaving together a variety of beliefs, attitudes, and behaviors to constitute their unique presentation of gender-related behaviors, resulting in considerable variability of gender roles within each sex (Spence, 1993).

Building upon the social construction of femininity, feminist psychodynamic developmental framework assumes that femininity is socially constructed, but this approach also acknowledges the patriarchal structure inherent in western social structure (Impett, Shcooler, & Tolman, 2006; Tolman et al., 2006). According to this approach, structural power differences and gender inequalities play a fundamental organizing role in the development of girls' psychology, and women develop an identity primarily based on others' responses to their behaviors, thoughts, and feelings (Impett et al., 2006; Tolman, et al., 2006). Within this context, young women are often taught to focus on socially appropriate behavior in relationships and standards for physical appearance, rather than their individual needs and wants (Impett et al., 2006; Tolman et al., 2006). From this perspective, many of the pressures inherent in ideologies of femininity are

restrictive (e.g., pressures to be passive rather than speak openly about conflict limit females' self-expression), and much of this ideology consists of a set of beliefs, attitudes, and ideas that are not benign or neutral (Tolman & Porche, 2000).

1.2.2 Understanding Ideologies of Femininity

Although this study adopts a feminist psychodynamic developmental framework, it should be noted that there may be instances when the endorsement of certain ideologies of femininity is not in and of itself maladaptive. As stated previously, this study conceptualizes femininity as a multi-factorial construct, and not all aspects of femininity may be inherently restrictive or oppressive. A long history exists of valuing the role of women and their femininity, dating back to Neolithic times when societies revered the mother goddess's fertility and reproductive capabilities (Campbell, 1988). Also, even in patriarchal societies, in many cases women find it very rewarding to hold traditional roles, for instance by valuing their role as a mother over that of a career woman, with beneficial outcomes.

Further, some women may be able to negotiate ideologies of femininity such that they appear to abide by certain gender roles but nevertheless avoid negative outcomes associated with them. In other words, some women may engage in certain stereotypical "feminine" behaviors when engaging with others to accomplish certain goals, but they may not personally endorse these beliefs and thus may have more freedom to choose whether or not to abide by them. For example, a young woman may present herself as submissive and respectful when engaging in conversation with a professor who openly endorses stereotypical beliefs for women's behavior in order to receive an "A" in the

class, but this woman may only do so if she views the benefits of this behavior as outweighing the costs or if she is able to be true to beliefs in most other life domains.

Alternatively, some women may be relatively unaware of the social and cultural expectations which shape their behavior, and these women may not fully understand or accurately gauge the costs inherent in abiding by certain ideologies of femininity. For example, some women may be socialized to believe it is "natural" for women to be quiet and demure or to have a thin figure with delicate features. These women may abide by these expectations without considering alternative possibilities. They may be less likely to be aware of the potential negative implications of abiding by these standards or perhaps may be less likely to consciously feel constrained by these standards.

However, the likelihood for psychosocial distress may increase when either there is a disconnect between what women believe and what society expects of them, or when societal expectations hold women to an impossible or highly restrictive standard, or when multiple important life domains are impacted by these expectations. Thus, although adherence to some ideologies of femininity may not always contribute to negative psychological outcomes, this study focuses on certain ideologies of femininity that are thought to be inherently restrictive in nature. Namely, this study focuses on factors regarding gendered expectations for interpersonal relationships (e.g., to be nice, to avoid conflict) and physical appearance (e.g., to focus on how one looks rather than how one feels). Further, it is hypothesized that these ideologies of femininity may be especially important in understanding DSH, as they may be related mechanisms underlying the behavior. As stated above, negative attitudes towards emotional expression, emotion inexpressivity, and difficulties with emotion regulation are thought to be risk factors for

DSH. To my knowledge, this study is the first attempt to conceptualize ideologies of femininity as potential sociocultural factors relevant for the development of DSH among young women. A description of the ideologies of femininity of focus in this study is provided below.

1.2.3 Inauthenticity in Relationships and Body Objectification

One major source of pressure for young women involves gendered expectations for interpersonal relationships and beliefs about what constitutes appropriate and inappropriate interactions with others. Young women may feel pressured to behave as the "good girl" (Jack & Dill, 1992) and avoid speaking their true thoughts and feelings in order to prevent conflict, maintain relationships, and not hurt others. In fact, these pressures have been termed by some researchers as "the tyranny of the nice and kind" (Brown & Gilligan, 1992, p. 53) and conceptualized as "inauthenticity in relationships" by formal assessment tools (Tolman et al., 2006). Many women may find communication of certain feelings to be difficult, especially when the feelings are aggressive, related to a person of real or imagined power (DiLazzero, 2003), or potentially threatening to interpersonal relationships (Brody, 1999). Abiding by these norms may help avoid hurting others' feelings, but strict adherence to being inauthentic in relationships may compromise one's self expression and psychological health. However, a direct link between inauthenticity in relationships and a higher likelihood for DSH has not been established.

Additionally, beliefs regarding one's own body are another potential domain of femininity relevant to DSH. The meaning and experience of being in one's own body often changes as girls experience puberty, especially for adolescent girls in a society that

objectifies and commodifies the appearance of women (Bordo, 1993; Brumberg, 1997). Women may distance themselves from their inner experiences and instead focus on the outward evaluation of their appearance, resulting in a certain objectification of their own body. In fact, young women who hold self-objectified views of their body tend to have lower self-esteem, increased rates of depression, and an increased risk for DSH (Muehlenkamp et al., 2005; Tolman & Porche, 2000). Thus, certain stereotypical feminine gender role beliefs (i.e., inauthenticity in relationships and body objectification) may set the stage for young women to experience difficulties expressing themselves in relationships and viewing their body positively, thereby placing them at a higher risk for DSH (Muehlenkamp et al., 2005).

1.3 Summary

In conclusion, high prevalence rates of DSH and co-occurring psychosocial distress among young women who engage in DSH point to the need for increased attention in research. Many questions remain about the risk factors influencing the development and occurrence of DSH. This study bridges previous perspectives by relating feminist thought regarding ideologies of femininity to identified psychological risk factors for DSH, which have not been previously explored in combination.

Specifically, a model that includes the idea that certain ideologies of femininity may impact how individuals communicate and regulate emotion is proposed. The endorsement of beliefs regarding inauthenticity in relationships (e.g., to be nice, avoid conflict) and body objectification (e.g., an emphasis on how one's body looks rather than feels) are supported by a cultural context in which women are discouraged from expressing feelings of anger and frustration and focus on how they appear to others.

Young women who endorse these specific ideologies of femininity may hold more negative cognitions about emotional expression, such as the belief that one should keep negative emotions under control. Negative beliefs regarding emotional expression may be related to a decreased likelihood for the expression of certain negative emotions, such as anger or frustration, especially within valued interpersonal relationships. An emphasis on the suppression and inhibition of emotional expression may be linked to difficulties with emotion regulation and a heightened risk for DSH as a means to alleviate distress and obtain temporary emotional relief (See Figure 2). Thus, this model proposes that higher adherence to ideologies of femininity may be related to an increased likelihood for DSH, and this relationship may be influenced by negative beliefs regarding emotional expression, emotional inexpressivity, and difficulties with emotion regulation.

It should be noted that this study's approach to emotion regulation is chosen largely based on prior research utilizing this approach when studying DSH (e.g., Gratz, 2006) and, as such, this work guides the structure of the proposed model. Models based on alternative conceptualizations of emotion regulation (e.g., isolating difficulties identifying and experiencing emotions and difficulties behaviorally managing emotions) may be tested in future work.

Additionally, it should be mentioned that this study examines an aversive childhood context as a potential risk factor for the development of DSH, although aversive childhood contexts are not included in the hypothesized model. Instead, research regarding aversive childhood contexts and DSH (e.g., Linehan, 1993) were used as a basis from which to develop hypotheses regarding the distal sociocultural influences that may also be relevant to understanding DSH. To control for the potential effects of

aversive childhood contexts on DSH, this construct is tested as a potential confounding variable.

1.4 Research Questions and Hypotheses

Hypothesis 1) It is expected that the likelihood of engaging in DSH (i.e., lifetime history) will be explained by a model including greater internalization of ideologies of femininity (i.e., inauthenticity in relationships and body objectification), more negative beliefs regarding emotional expression, greater emotional inexpressivity, and greater difficulties with emotion regulation (see Figure 2).

Hypothesis 2) It is expected that DSH frequency will be explained by a model including greater internalization of ideologies of femininity (i.e., inauthenticity in relationships and body objectification), more negative beliefs regarding emotional expression, greater emotional inexpressivity, and greater difficulties with emotion regulation (see Figure 2).

CHAPTER 2: METHODS

2.1 Participants

Participants consisted of 500 female undergraduate students enrolled in introductory psychology classes at the University of North Carolina at Charlotte, and participants ranged in age from 18 – 25 years (M = 19.8; SD = 1.98). Most participants were freshman (41.6%) or sophomores (30.0%). A majority of students identified as Non-Hispanic ethnic background (93.7%), and students reported a range of racial backgrounds; 68.7% identified as Caucasian, 17.0% African American, 4.3% Hispanic, 4.5% Asian, 1.1% American Indian, and 4.5% Multiracial/Other. More than half (64.4%) of students reported being in a romantic relationship at the time of data collection.

2.2 Procedure

Participants were recruited from introductory psychology classes at the University of North Carolina at Charlotte. Approval of this project from the UNCC's Institutional Review Board for Research with Human Subjects was obtained prior to beginning data collection. Students were informed of this study via classroom and/or on-line announcement. Participants were asked to complete the questionnaires electronically, by accessing the university's online student research participant website. Students were instructed to complete the online questionnaires at a private computer, either by utilizing the Psychology Department's research methods computer lab, or at a private location of their choice (e.g., their dorm room when they were alone). The online questionnaire took

approximately 30-45 minutes to complete (See Appendix A for the full questionnaire). Students received class credit in exchange for their time.

Since this study contained potentially distressing item content, special precaution was taken to fully inform each participant prior to participation. Participants were informed electronically of the purpose and confidentiality of the study prior to data collection, and the voluntary quality of participation was emphasized. Students were informed that they could change their minds at any time during completion of the questionnaires and omit potentially distressing items they did not wish to answer, and still receive credit for participation. Further, students were informed of the nature of the questionnaire and the potentially distressing subject matter. Following recommendations of Gratz (2006), students were advised that, if they were experiencing difficulty refraining from engaging in DSH, they should not participate. The following message was provided before beginning the questionnaires:

> "The purpose of the study is to examine people's experiences with self-harm, including the different kinds of ways in which people may intentionally harm themselves physically when they are under stress. You will be asked to fill out a questionnaire consisting of a list of different behaviors in which people may engage to physically harm themselves. Since the questionnaire is behaviorally based, it may be somewhat shocking and potentially distressing. If you find this topic distressing, or if you are currently having difficulty not harming yourself in some way, it is advised that you do not participate in this study."

Information regarding free, on-campus counseling services was given to every student interested in the study, regardless of participation. After completing the questionnaire, a description of the purpose of the study along with an additional detailed referral for the university's counseling center was provided. Participants were encouraged to visit the university counseling center if they endorsed any of the items pertaining to

DSH, depressive symptomatology, or thought they may need counseling services as a result of participation in the study or otherwise.

2.3 Power Analysis

Since the number of cases has no impact on whether a path model is identified in SEM, there are no absolute standards about the number of cases needed (Kline, 2005). According to Kline (2005), the general guideline of the ratio of the number of cases to the number of free parameters of 20:1 is desirable, but 10:1 is often more realistic and acceptable. The first CFA model has ten parameters (i.e., the total number of direct effects of the factors on the indicator plus the measurement errors of the factors; Kline, 2005), while the second CFA model has twelve parameters. The proposed model that was tested with SEM had twelve parameters (i.e., the total number of variances of the exogenous variables, the direct effects on endogenous variables, plus the measurement errors of the factors). Thus, the reasonable and acceptable guideline would result in employing 120 participants. Other estimates suggest that SEM models utilize samples of 200 or more participants (Marsh, Hau, & Balla, 1998). Since it was expected that approximately 30% of participants would report engaging in DSH based on previous studies (Gratz, 2006), a sample of 500 participants was expected to yield approximately 150 participants with a history of DSH. Taking these suggestions into consideration, a total of 500 participants were invited to participate in this study.

2.4 Measures

Demographic characteristics. Participants were asked to complete a fact sheet assessing age, ethnic background, race, college major, GPA, sorority or fraternity

membership, class standing, living arrangements, employment status, and relationship status (i.e., in a romantic relationship or not).

Ideologies of femininity. The revised version of the Adolescent Femininity Ideology Scale (AFIS; Tolman et al., 2006) was used to measure two specific ideologies of femininity. The AFIS is a 17-item self-report questionnaire measuring the degree to which females adhere to social constructs of femininity. Specifically, the AFIS measures girls' internalization of two negative conventions of femininity: inauthenticity in relationships (ISR; e.g., "Often I look happy on the outside in order to please others, even if I don't feel happy on the inside") and objectification of one's own body (OBR; e.g., "I think that a girl has to be thin to feel beautiful"). The AFIS was normed on a diverse sample of adolescents (participants were 36% White, 36% African American, 12% Latina, from working-class and middle-class family backgrounds). Participants respond to statements on a scale that ranges from 1 (Strongly Disagree) to 6 (Strongly Agree) with higher scores reflecting higher adherence to the specific ideology. Initial reliability for the two subscales was adequate among this study's sample (α_{ISR} =.70, $_{ORB}$ =.86).

Beliefs regarding emotional expression. The Attitudes towards Emotional Expression Scale (ATEES; Joseph et al., 1994) was used to assess beliefs and tendencies regarding emotional expression (e.g., "I think getting emotional is a sign of weakness"). Participants respond to 20 items on a 5-point scale from 1 (Disagree very much) to 5 (Agree very much), with higher scores reflecting more negative attitudes toward emotional expression. This measure is composed of four 5-item subscales assessing the following areas: a) beliefs about meaning (Weakness; e.g., "I think getting emotional is a sign of weakness"); b) behavioral style (Bottle up; e.g., "When I'm upset, I bottle up my

feelings"); c) beliefs about expression (Control; e.g., "I think you should always keep your feelings under control"); and d) beliefs about consequences (Social rejection; e.g., "Other people will reject you if you upset them"). This measure showed good internal consistency among this study's sample ($\alpha = .91$) and is associated with restrictive emotional expression and depression (Joseph et al., 1994).

Emotional inexpressivity. The Emotional Self Disclosure Scale (ESDS; Snell, Miller, & Belk, 1988) is a 40-time self-report questionnaire and was used to measure participants' willingness to discuss eight discrete emotions (i.e., anger, sadness, anxiety, jealousy, fear, calmness, apathy, and happiness). The scale begins with "Please indicate how willing you are to discuss each of these specific feelings…" and is followed by items assessing specific emotions (e.g., "Times when you felt depressed"). The original scale distinguishes participants' willingness to discuss emotions with a male friend and a female friend. This study used a modified version more applicable for college women by identifying recipients as a close friend and romantic partner. Participants respond to statements on a scale that ranged from 1 (Never) to 5 (Almost always), with higher scores on both versions indicating more willingness to discuss emotions with a close friend and romantic partner, respectively. This scale showed good internal reliability among this study's sample ($\alpha_{\text{FRIEND}} = .97$; $\alpha_{\text{PARTNER}} = .98$). After responding to this questionnaire, participants were asked to identify if their close friend and romantic partner was male or female.

Difficulties with emotional regulation. The Difficulties with Emotion Regulation Scale (DERS; Gratz & Roemer, 2004) was used to assess participants' typical levels of emotion regulation. The DERS is a 41-item self-report measure and showed good internal

consistency in this study (α = .93). The DERS is composed of six primary subscales assessing the following areas: a) awareness and understanding of emotions (Awareness; e.g., "I pay attention to how I feel"); b) acceptance of emotions (Acceptance; e.g., "I care about what I am feeling"); c) emotional clarity (Clarity; e.g., I know exactly how I am feeling"); d) positive beliefs about one's ability to handle negative emotions (Strategies; e.g., "When I'm upset, I know that I can find a way to eventually feel better"); e) the ability to engage in goal-directed behavior when experiencing negative emotions (Goals; e.g., "When I'm upset, I can still get things done"); and f) impulse control abilities (Impulse; e.g., "When I'm upset, I feel out of control"). Participants respond to items on a 5-point scale from 1 (Almost never) to 5 (Almost always). High scores indicate higher levels of difficulties with emotion regulation.

Deliberate self-harm. The outcome of interest (i.e., DSH likelihood and DSH frequency) was assessed with the Deliberate Self-Harm Inventory (DSHI; Gratz, 2001). This scale assesses various aspects of deliberate self-harm, including frequency, severity, duration, and type of self-harming behavior. The DSHI is composed of 17 items assessing if the participant ever engaged in a specific form of self-harm, with 6 follow-up questions for each item if answered in the affirmative. This measure was chosen as it is based on the definition of deliberate self-harm as the deliberate, direct destruction of body tissue, without conscious suicidal intent, that results in potential tissue damage. Thus, this measure makes the distinction of non-lethal intentioned self-harm, giving this study the advantage of distinguishing between DSH and suicidal behavior. All items begin with, "Have you ever intentionally (i.e., on purpose)…," and are followed by a specific behavior (e.g., "…cut your wrists, arms, or other areas of your body without

intending to kill yourself?"). This measure allows for the assessment of the frequency of self-harm (i.e., number of days in which DSH occurred) as well as the number of methods used to engage in DSH. A dichotomous self-harm variable was created to distinguish individuals who have ever engaged in DSH (1) from those who have never engaged in DSH (0). The DSHI has been found to adequate test–retest reliability over a period ranging from 2 to 4 weeks (Φ=.68, p <.001; Gratz, 2001).

History of mental and physical health difficulties. Participants were asked to complete a checklist assessing lifetime and past year diagnosis of mental illness (e.g., depression, anxiety, BPD), physical illness or condition (e.g., hypertension, heart disease), and mental and physical health treatment.

Psychological distress. The Hopkins Symptom Checklist Inventory-25 (HSCL-25; Derogatis, 1983) was used to assess anxiety (e.g., suddenly scared for no reason; 10 items) and depressive (e.g., crying easily; 15 items) symptoms. Participants respond to statements on a scale that ranges from 0 (Not at all) to 3 (Extremely) with higher scores on each subscale reflecting more anxiety and depressive symptoms. The HSCL-25 is highly correlated with the 58-item version of the HSCL (Derogatis, 1977), has been widely used as a psychiatric screening tool (Fink et al., 1995), and showed good internal consistency among this sample (α = .91).

Childhood family environment. A revised version of the Emotion Socialization subscale from the Emotions as a Child Scale Inventory (EAC; Magai, 1995) was used to assess how participants' primary caregiver responded to their emotional expression as a child (EAC-C1.1; Klimes-Dougan, Brand, & Garside, 2001). Participants were asked to indicate how much it was like their primary caregiver to behave in a certain way (i.e., use

a certain socialization strategy) to three discrete emotions (i.e., sadness, anger, and fear). Participants respond to 15 items on a scale ranging from 1 (Not at all typical) to 5 (Very typical). The revised version is intended to assess the five socialization strategies outlined in the original version of the EAC: Reward (e.g., "S/he understood why you felt sad,"); Punish (e.g., "S/he called you a crybaby"); Neglect (e.g., "S/he ignored you"); Override (e.g., "S/he told you to keep quiet"); and Magnify (e.g., "S/he got angry with you"). Higher scores indicate more frequent emotional socialization responses within each of the five domains. This scale demonstrated adequate internal consistency among this study's sample ($\alpha_{overriding} = .71$, $\alpha_{rewarding} = .83$, $\alpha_{magnifying} = .61$, $\alpha_{punishing} = .65$).

2.5 Plan of Analysis

Data were screened to assure that assumptions of normality and linearity were met. Bivariate correlations examined whether key variables were associated in the expected directions. The hypothesized models were tested in two steps. First, Confirmatory Factor Analysis (CFA) was used to test the measurement model of the two latent constructs (i.e., attitudes towards emotional expression [ATEES] and difficulties with emotion regulation [DERS]). Next, Structural Equation Modeling (SEM) analysis was used to test the structural models. Maximum likelihood (ML) estimation was used to identify estimates of direct and indirect effects. Parameter estimates and goodness of fit indicators (i.e., Root Mean Square Error of Approximation [RMSEA], parsimony goodness-of-fit index [PGFI], and the comparative fit index [CFI]) were used to identify appropriate fit of the model to the data. If changes were made based on parameter estimates and goodness of fit indicators, the chi-square difference statistic (χ^2_d) was used to test the statistical significance of improvements in the model as paths were eliminated

(i.e., trimmed) or added (i.e., built), in accordance with recommendations made by Kline (2005). Only model revisions that made sense theoretically were performed. Both CFA and SEM were performed using AMOS 17.0 (Arbuckle, 2008). This two-step approach to testing the model was chosen as it has the advantage of separating potential measurement error from the estimation of causal effects and does not require four indicators per factor (Kline, 2005).

Measurement model testing. Confirmatory factor analysis (CFA) assessed the factor structure of the two latent variables, in accordance with guidelines outlined by Kline (2005). Namely, CFA was performed to identify the measurement model for ATEES (See Figure 3) and DERS (See Figure 4). Parcels were created from the measures to create latent variables, and thus accounted for measurement of error (Kline, 2005). A parcel is similar to a subscale, in that it is composed of a group of items measuring a component of the larger latent construct (Kline, 2005). For example, the latent variable of beliefs regarding emotional expression was created with four parcels, namely with the ATEES subscales reflecting beliefs about meaning, behavioral style, beliefs about expression, and beliefs about consequences. Models utilizing parcels tend to have greater reliability, parsimony, and better model fit than models utilizing individual items (Kline, 2005; Thompson & Melancon, 1996). Since the ATEES and DERS have established factor structure and uni-dimensional subscales, parceling is an appropriate procedure for these data (see Bandalos, 2002).

Model fit was assessed using the following goodness of fit indicators: the chi-square statistic (χ^2), the Root Mean Square Error of Approximation (RMSEA) statistic, and the comparative fit index (CFI). The RMSEA statistic was chosen as it is appropriate

for SEM utilizing dichotomous and continuous outcome variables and is robust with larger samples (i.e., $N > 250$; Hu & Bentler, 1999). Suggestions from Hu and Bentler (1999) were used to guide cutoff scores for all indices. Namely, a non-significant χ^2 statistic represents a close fit between the hypothesized model and the data (Hu & Bentler, 1999). However, it should be noted that the χ^2 is sensitive to sample size, and a significant χ^2 may be obtained for a well-fitted model for large sample sizes (Byrne, 2001). For the RMSEA, a cutoff score close to or less than 0.06 is indicative of good fit, while a cutoff score close to or less than 0.08 is indicative of acceptable goodness of fit (Hu & Bentler, 1999). CFI values greater than .90 represent an acceptable fit, while scores equal to or greater than .95 indicates a well-fitting model (Hu & Bentler, 1999).

Measurement model modification. Model modifications were made based on standardized residuals and the modification indices. Specifically, standardized residuals represent model misspecification if they are larger than a cutoff point of 2.58 (Byrne, 2001). Modification indices provide information regarding each fixed parameter's covariance, and modification indices above 2.58 were used to suggest model improvement with the inclusion of error term covariance or fixed parameter covariance, in accordance with Byrne (2001). Finally, model parsimony was assessed by screening for non-significant structural parameter estimates, as outlined by Byrne (2001); parameter estimates that were non-significant (i.e., that did reach ± 1.96; Byrne, 2001) were excluded from the final model. Improvements in the model were tested by the χ^2_d statistic, to determine if changes to the model were statistically significant. All changes were performed only if they made sense theoretically. The final measurement models were used as latent constructs in the structural model.

Structural model testing. Next, two separate SEM analyses were conducted to test the hypothesized models. The final models included ideologies of femininity (inauthenticity in relationships and body objectification), attitudes towards emotional expression, and difficulties with emotion regulation predicting DSH likelihood (yes/no) and DSH frequency (See Figure 5). Participants who reported no lifetime history of DSH were excluded from the model predicting the frequency of DSH. The model tested direct (e.g., the effect of inauthenticity in relationships on attitudes toward emotional expression) as well as indirect effects (e.g., the role beliefs in emotional expression plays in the relationship between inauthenticity in relationships and attitudes toward emotional expression). Although the proposed model is mediational in nature, the cross-sectional design does not allow for interpreting the findings as suggestive of mediation. As MacKinnon, Fairchild, and Frith (2007), have cautioned that "mediation requires temporal precedence from X to M to Y" (pp. 603).

Maximum likelihood (ML) estimation was used to identify estimates of direct and indirect effects given the model and parameter estimates. Goodness of fit of the models was tested with RMSEA statistic, the parsimony goodness-of-fit index (PGFI), and the CFI. The chi square statistic was not chosen for ML, as it sensitive to sample size and often leads to the rejection of appropriate models for complex models utilizing large sample sizes (Kline, 2005). The PGFI was chosen as it is an index that assesses both the goodness of fit and the parsimony of the model, providing a more realistic assessment of goodness of fit (Byrne, 2001; Mulaik et al., 1989). For the PGFI, scores above .50 indicate adequate goodness-of-fit and parsimony (Mulaik et al., 1989).

Structural model revisions. Model modifications were made based on standardized residuals and modification indices. Specifically, standardized residuals represent model misspecification if they are larger than a cutoff point of 2.58 (Byrne, 2001). Non-significant structural parameter estimates were deleted, and model parsimony was assessed to identify the most parsimonious model that accurately fitted the data. Specifically, parameter estimates that were non-significant (i.e., critical ratio (c.r.) $< \pm$ 1.96; Byrne, 2001) were excluded from the final model. Improvements in the model were tested by the χ^2_d statistic, to determine if changes were statistically significant. All changes were performed only if they made sense theoretically. The model was identified if it was found that a unique estimate of each parameter can be theoretically possible, as determined by model fit indexes and significant standardized path coefficients (Kline, 2005). When the model was accepted, standardized path coefficients in the model identified significant relationships among variables (Kline, 2005).

Potential confounding variables. Demographic characteristics, history mental and physical health difficulties, childhood emotional socialization, and current psychological distress were assessed as these variables are thought to be of potential importance in the occurrence of DSH (Linehan, 1993; Skegg, 2005). These variables were included in the analyses to determine if the variables of interest are significant predictors of the likelihood of engaging in DSH above and beyond the influence of these variables.

CHAPTER 3: RESULTS

3.1 Preliminary Analysis

Skewness and kurtosis analyses were conducted to assess assumptions of normality and linearity. All data met the requirements of normality and linearity, as outlined by Kline (2005).

Patterns of missing data and planned missing data were examined. Incomplete data for lifetime history of DSH were identified (10.6%; $N = 53$), this was expected as participants were given the option to skip these items due to their sensitive nature. Listwise deletion was chosen to avoid an out-of-bounds covariance matrix associated with pairwise deletion, in accordance with recommendations from Kline (2005). Methods for missing data substitution were not chosen, as missing data were the predicted outcome variable in the proposed hypothesis model. All subsequent analyses were performed using complete data ($N = 447$).

Planned missing data analysis. One-way ANOVA analyses investigated differences between participants who reported DSH data and those who did not. Participants who chose not to report DSH data reported less frequent emotional self-disclosure to a close friend ($F(1, 498) = 13.56$, $p < .01$), less frequent emotional self-disclosure to a romantic partner ($F(1, 498) = 16.18$, $p < .001$), more negative attitudes towards emotional expression ($F(1, 498) = 4.73$, $p < .05$), more difficulties with emotion regulation ($F(1, 498) = 9.47$, $p < .01$), more anxiety ($F(1, 498) = 7.49$, $p < .01$), and more

depressive symptoms ($F(1, 498) = 12.79$, $p < .001$) compared to those who responded. This suggests the sample used for analyses experienced less difficulty with emotion regulation and less psychological distress; perhaps participants declined to answer DSH data if they were concerned about the distressing nature of DSH or had avoided these items due to personal relevance. Although untested, this may also suggest that actual prevalence rates of DSH among this sample may be higher than the sample used for analyses.

Participants were given the option of responding to frequency of DSH by indicating the number of days they had engaged in each specific type of self-harm. However, several participants responded "too many to count," "a lot," or "don't remember." These responses did not provide a specific number of occasions which rendered them unusable for the purpose of this study and thus did not allow for testing hypothesis regarding factors associated with the frequency of DSH.

Descriptive statistics. Characteristics of the predictor and outcome variables were examined, and descriptive statistics (means and standard deviations) are presented in Table 1. In general, participants disagreed somewhat with statements reflecting feminine ideology, indicating moderate levels of adherence to traditional feminine ideology. On average, participants disagreed with emotional expression statements, reflecting somewhat positive attitudes towards emotional expression. When expressing emotions overall, participants reported expressing emotions to a close friend and romantic partner a little more than sometimes. Participants reported expressing happiness to a friend and romantic partner most frequently (i.e., often) and apathy least frequently (less than

sometimes). On average, participants reported experiencing difficulties with emotion regulation a little more than some of the time.

About one third of the participants (29.7%) indicated that they had engaged in DSH at some point in their life. Among participants who reported a history of DSH (*N* = 131), a little more than half reported using one method to engage in the behavior (54.2%); a little less than half reported utilizing more than one method of DSH; 17.9% utilized two methods of DSH, 11.9% utilized three methods, 4.5% utilized four methods, 5.2% utilized five methods, and 7.5% utilized six or more methods. The most common method used to engage in DSH was cutting one's wrist, arms, or other area(s) of the body (45.5%). The second most common method used to engage in DSH was punching oneself to the extent to cause a bruise (23.9%), followed by carving words into one's skin (21.6%), and sticking sharp objects such as needles, pins, staples, etc. into one's skin (not including tattoos, ear piercing, needles used for drug use, or body piercing) (*N* = 20.1%). On average, participants who reported a history of DSH ranged in age from 11 to 16 when they first began engaging in various forms of DSH, with banging one's head against something to the extent to cause a bruise occurring earliest (*M* = 11.67, *SD* = 4.39) and preventing wounds from healing occurring latest (*M* = 16.0, *SD* = 2.24). The most common form of DSH, cutting, often began when participants were a little younger than 15 (*M*= 14.79; *SD* = 2.22). Participants reported various durations of engaging in DSH, ranging from one discrete time period (e.g., "about a week") to several years (e.g., "ages 12 to 17") and even to multiple years too many to count (e.g., "my whole life").

As mentioned previously, frequency of DSH could not be determined, as several participants responded, "too many to count" or "uncertain." However, review of

responses to frequency of the most common form of DSH, cutting, may provide an informal description of the frequency of DSH. Frequency of cutting was grouped into five main categories: a) infrequent (e.g., "once," "five or six times," "a few"); b) moderate (e.g., "about 3 weeks," "20," "62 days"); c) frequent (e.g., "too many to count," "100+"); d) ongoing (e.g., "I'm not sure I stopped"); and e) unknown/did not respond (e.g., "???"). Among participants who reported engaging in cutting (n = 134), 18.7% (n = 25) indicated they engaged in the behavior infrequently, 6.7% (n = 9) indicated moderate frequency, 3.7% (n = 5) indicated frequently, 1.5% (n = 2) indicated ongoing, and 69.4% (n = 93) were unsure or did not respond. Since a majority of participants did not provide a frequency of DSH behavior, it is unclear whether these groups are representative. However, it appears that some participants experimented or engaged in the behavior for a brief amount of time, while the remaining group of participants used DSH frequently, for weeks and sometimes even years.

3.2 Correlational Analyses

Bivariate correlational analyses identified significant relationships between many variables of interest all in expected directions. First, a lifetime history of DSH was found to be positively associated with lifetime mental health diagnoses (r = .21, p < .001), being white (r = -.09, p < .05), and four components of child emotional socialization: Reward (r = -.14, p < .01), Neglect (r = .19, p < .001), Magnify (r = .18, p < .001), and Punish (r = .17, p < .001). Thus, lifetime mental health diagnoses, race, and child emotional socialization were included as control variables in subsequent analyses.

Correlation analyses identified significant relationships among variables, all in expected directions (see Table 2). Participants who internalized ideologies of femininity

tended to have more negative beliefs about emotional expression. In addition, women who endorsed more negative attitudes towards emotional expression tended to express emotions to a close friend and romantic partner less frequently. Total scale means for emotional disclosure (rather than means for the eight discreet emotions) were used in the analyses. Also, participants who less frequently expressed emotions to a close friend and romantic partner tended to experience greater difficulties with emotion regulation. Finally, greater difficulties with emotion regulation were correlated with a greater likelihood of DSH.

3.3 Confirmatory Factor Analysis

To test the measurement model of the two latent variables (i.e., attitudes towards emotional expression and difficulties with emotion regulation), CFA was used, as outlined by Kline (2005). First, parcels were created for each of the ATEES and DERS subscales, as parcels tend to have greater reliability and better model fit than models utilizing individual items (Bandalos, 2002; Kline, 2005). Specifically, items were grouped into four parcels for the ATEES (i.e., weakness, bottle up, control, and social rejection) and six parcels for the DERS (i.e., awareness, acceptance, clarity, strategies, goals, and impulsive) based on factor analyses results from Joseph and colleagues (1994) and Gratz and Roemer (2004), respectively. Based on CFA findings, both measurement models were revised; these changes are detailed below.

ATEES measurement model revisions. Specifically, the CFA model for ATEES produced an inadequate chi-square statistic ($\chi^2 = 13.15$, $p < .01$), RMSEA (RMSEA = .112, $p = .03$), and CFI (CFI < .90). Review of the factor loadings for each fixed parameter resulted in dropping three items which showed low internal consistency (i.e., *r*

≤ .70). After item deletion, one parcel (i.e., Control) was renamed (i.e., Hide) to more accurately reflect item content (e.g., "You should always hide your feelings"). This model showed appropriate goodness of fit (χ^2 = 9.12, p < .01, RMSEA = .09, p =.09; CFI = .99). Since the model was not trimmed or built, the χ^2_d statistic could not be calculated. In sum, the following changes were made to the measurement model for ATEES: three items were dropped from inclusion the parcels (i.e., items 2, 4, and 9) and one fixed parcel was renamed. The final CFA model for ATEES is presented in Figure 6, with descriptive statistics and unstandardized coefficients presented in Table 3.

DERS measurement model revisions. Similarly, the CFA model for DERS was revised based on an inadequate χ^2 (64.91, p < .001), RMSEA (12, p = .000), and the CFA (< .90). Reviewing the factor loadings for each fixed parameter resulted in dropping eight items which showed low internal consistency (i.e., $r \leq .70$). One parcel (i.e., Clarity) was deleted from the measurement model as it was non-significant (i.e., critical ratio (c.r.) < ± 1.96; Byrne, 2001). This model showed appropriate goodness of fit (χ^2 = 16.88, p = .01; RMSEA = .07, p =.36; CFI = .98). These changes resulted in a significant improvement in the CFA model (χ^2_d = 48.03, p < .001). In sum, the following changes were made to the measurement model for DERS: eight items were dropped from inclusion the parcels (i.e., items 1, 3, 17, 20, 22, 23, and 24) and five fixed parameters were included instead of six (i.e., Nonacceptance, Goals, Impulse, Strategies, and Awareness). The final CFA model for DERS is presented in Figure 7, with descriptive statistics and unstandardized coefficients presented in Table 3.

Since the measurement model findings for both ATEES and DERS resulted in changes to the factor structure of these variables, correlation analyses were performed

again, with the new variables after CFA revisions (see Table 4). All relationships among variables were in expected directions, similar to previous correlational findings.

3.4 Structural Equation Modeling

The tested structural model included the following variables in the explanation of a lifetime history of DSH (yes/no): inauthenticity in relationships (AFIS Self), body objectification (AFIS Body), attitudes towards emotional expression (ATEES), emotional self-disclosure (ESDS), and difficulties with emotion regulation (DERS), after controlling for race, lifetime mental health diagnoses, and child emotional socialization. The latent constructs (i.e., ATEES and DERS) were represented by the measurement model supported by CFA findings. This model did not meet specification requirements (i.e., $\chi^2 = 629.3$, $p < .001$; RMSEA = .09; PCFI = .60, CFI < .90).

Model revisions. Examination of the modification indices resulted in the addition of a structural path between AFIS Body and DERS and AFIS Self and DERS. These alterations made sense theoretically, and were performed. Model parsimony was assessed via parameter estimates; three structural paths proved to be non-significant and were deleted (i.e., the path between race and DSH, the path between child emotion socialization and DSH, and the path between ESDS and DERS). According to parameter estimates, the contribution of race and child emotion socialization to DSH was accounted for by lifetime mental health diagnoses. This made sense theoretically, as well as statistically (the association between race and lifetime mental health diagnoses was significant; $r = -.19$, $p < .001$, and the association between child emotion socialization and lifetime mental health diagnoses was significant; Neglect $r = .14$, $p < .01$; Magnify $r = .15$, $p < .01$; Punish $r = .12$, $p < .05$). Thus, race and child emotion socialization were

deleted from subsequent ML models, while lifetime mental health diagnoses was retained as a control variable.

In sum, the following changes were made to the model: two structural paths were added (i.e., a structural path between AFIS Body and DERS and AFIS Self and DERS), three structural paths were deleted (i.e., the path between race and DSH, the path between child emotion socialization and DSH, and the path between ESDS and DERS), and seven error covariance paths were added.

Revised model findings. This model was an adequate fit for the data (RMSEA = .07, p = .00; PGFI = .59; and CFI = .92). Compared to the hypothesized model, this model was a significantly better fit to the data ($\chi^2_d = 407.7$, $p < .001$). This model is illustrated in Figure 7 with standardized path coefficients included among all factors (to increase clarity in the model, error measurements were excluded from the figure). All parameter estimates in the final model were statistically significant and substantively meaningful. Squared multiple correlations (SMCs) are provided in Table 5 as a representation of the proportion of variance explained by the predictors of each variable according to the model (Byrne, 2001). Indirect and total effects of each variable are presented in Table 6. The total effect of variables in the model on DSH was calculated by following the steps outlined by Kline (2005). Namely, the standardized direct effects for each variable were summed, indicating that 52% of the variance in DSH likelihood is accounted for by the model (St. = .52).

The patterns of associations among variables in the model, as represented by standardized and unstandardized estimates of variance, illustrate how each construct in the model contributes to the likelihood of a lifetime history of DSH. Greater

inauthenticity in relationships, greater body objectification, and more negative attitudes towards emotional expression all indirectly contribute to lifetime DSH. Greater difficulties with emotion regulation and greater lifetime mental health diagnoses both directly contribute to greater DSH likelihood. In other words, the three factors that indirectly contribute to DSH likelihood function by contributing to greater difficulties with emotion regulation, which in turn, contributes to DSH likelihood.

3.5 Post Hoc Analyses

In order to better understand the profile of women who reported engaging in DSH, group differences among psychosocial factors of interest were examined. Participants who reported a lifetime history DSH were compared to participants who never reported engaging in DSH. Specifically, chi-square analyses examined differences among discrete variables of interest (i.e., age, race, sorority membership, sexual orientation), specific mental health diagnoses (e.g., anxiety, depression, PTSD, BPD), specific physical health diagnoses (e.g., high blood pressure, asthma, pain disorder). One-way ANOVAs explored differences among continuous variables of interest (i.e., current anxiety and depressive symptoms, emotional disclosure to a friend and romantic partner for eight specific emotions (e.g., happiness, jealously, anger), and child emotion socialization). Several significant differences were found; findings are presented in Table 7.

Compared to women from other ethnicities, Caucasian and Asian participants were more likely to report a history of DSH, while African American participants were significantly less likely to report a history of DSH. Also, participants who reported a history of DSH were significantly more likely to have a diagnosis of anxiety, depression,

BPD, pain disorder, and sexual functioning disorder. Participants who reported a history of DSH were significantly more likely to have experienced neglectful, magnified, and punishing reactions from a caregiver in response to emotional expression and significantly less likely to have experienced rewarding responses to emotional expression. Participants with a history of DSH were also more likely to report higher levels of current anxiety and depressive symptoms, and report more frequent expressions of anxiety and apathy to a close friend. No group differences were found for age, sorority membership, sexual orientation, other mental and physical health diagnoses, or frequency of emotional expression for the other discrete emotions.

Similarly, women who reported engaging in DSH were grouped into a "Low DSH" or a "High DSH" group, based on the number of methods used for DSH (i.e., 1 method = "Low", 2 or more methods = "High"). This categorization method was chosen, as actual responses to frequency of various forms of DSH were too difficult to categorize into reliable groups. Group differences among psychosocial factors of interest were examined. Several significant differences were found; findings are presented in Table 7. Specifically, compared to participants reporting only one method of DSH, participants reporting more than one method were significantly more likely to have a mental health diagnosis, report higher levels of current anxiety and depressive symptoms, and to have experienced neglectful reactions from a caregiver in response to emotional expression and significantly less likely to have experienced rewarding responses to emotional expression.

CHAPTER 4: DISCUSSION

This study examined the contribution of sociocultural pressures for young women (i.e., body objectification and inauthenticity in relationships), attitudes towards emotional expression, and difficulties with emotion regulation to the explanation of lifetime history of DSH. To my knowledge, this was the first study to examine how negative social pressures regarding physical appearance and behavior in interpersonal relationships contribute to a dangerous, maladaptive coping mechanism among college women. By examining the sociocultural context of DSH, we can begin to gain a broader, contextual understanding of the risk factors for DSH.

Main findings of the study include a snapshot of the prevalence and types of DSH reported by this study's sample. Specifically, a total of 29.7% ($N = 131$) participants reported a history of DSH, with self-harm beginning during early adolescence (i.e., between 11 and 16). The most common form of DSH was cutting, followed by punching oneself, and carving words into one's skin. Most participants reported more than one method of DSH (54.2%), and the vast majority of participants reported engaging in DSH while alone (85.8%).

Model testing for hypothesis 1 identified a model explaining DSH likelihood that suggests greater inauthenticity in relationships, greater body objectification, more negative attitudes towards emotional expression, and greater difficulty with emotion regulation contribute to increased likelihood of DSH, after accounting for mental health

diagnoses. Results indicate that the internalization of certain pressures for young women (i.e., inauthenticity in relationships and body objectification), as well as factors identified in the affect regulation model (i.e., negative attitudes towards emotional expression and difficulties with emotion regulation), work together in informing the understanding DSH among this population. Model testing for hypothesis 2 could not be performed, as DSH frequency could not be assessed. Participants' responses did not provide a specific number of occasions, which rendered these data unusable for the purpose of this study. An elaboration of specific findings from this study will be provided below in subsequent sections.

4.1 Preliminary Findings

Thirty percent of participants indicated that they had engaged in DSH at some point in their lifetime. This finding is consistent with previous studies investigating DSH among college populations. For example, DSH was reported by 37% of women from a New England university (Gratz, 2006) and 27.8% of men and women from a Midwestern university (Brown, Williams, & Collins, 2008). These suggest that DSH is fairly common among college women and is a relevant area of focus for intervention and prevention efforts.

4.2 Measurement Model Findings

CFA findings revealed that the ATEES and DERS measurement models needed to be modified. Specifically, the ATEES was revised by dropping three items from the scale, renaming one subscale to better reflect the item content (i.e., "Control" was renamed "Hide"). The DERS model was revised by dropping eight items from the scale and including five fixed parameters instead of six (i.e., Nonacceptance, Goals, Impulse,

Strategies, and Awareness). The Clarity subscale was dropped due to non-significant parameter estimates, suggesting clarity in emotions (e.g., "I know exactly how I am feeling") may not be a component of emotion regulation or that this subscale overlaps with another component of the DERS. The latter seems most likely, as inspection of the DERS subscales according to the original factor structure proposed by Gratz and Roemer (2004) revealed that the Clarity and Awareness subscales were highly correlated ($r = .56$, $p < .001$). Investigation of previously identified alpha coefficients for the subscales of the ATEES and the DERS (i.e., Joseph et al., 2004 and Gratz & Roemer, 2004, respectively) are consistent with these findings; subscales for the ATEES showed moderate to good reliability (αs ranged from .77 to .90; Laghai & Joseph, 2000), and subscales for the DERS showed moderate to good reliability (αs ranged from .80 to .89; Gratz & Roemer, 2004). The internal reliability for these subscales may be improved with the deletion of certain items from the measures. Future studies may benefit from further testing the factor structure of the ATEES and the DERS to provide additional support for the findings of this study.

4.3 Structural Model Findings

Structural equation modeling tested a model explaining a lifetime history of DSH. It was expected that a model including greater inauthenticity in relationships, greater body objectification, more negative attitudes towards emotional expression, less frequent emotional disclosure, and greater difficulties with emotion regulation would explain the likelihood of DSH among young women. The model was supported, and slight revisions to the model resulted in statistical and theoretical improvement. The final model holds value in elucidating how greater inauthenticity in relationships, greater body

objectification, more negative attitudes towards emotional expression, and greater difficulties with emotion regulation contribute to greater likelihood of DSH, after accounting for a history of mental health diagnoses. These findings will be discussed below, first by examining the contribution of all the factors in the model to DSH, and they by examining the patterns of associations among key components in the model.

Greater inauthenticity in relationships, greater body objectification, and more negative attitudes towards emotional expression all indirectly contribute to a lifetime history of DSH. Thus, these factors play a role in understanding DSH, although they do so by influencing other constructs that are directly related to DSH. Greater difficulties with emotion regulation and greater lifetime mental health diagnoses directly contributed to having a history of DSH. It may be that inauthenticity in relationships, body objectification, and attitudes towards emotional expression are belief systems and behavioral tendencies that are shaped early in life by various sociocultural norms communicated implicitly to children. Difficulties with emotion regulation may occur at a later age, potentially as a byproduct of internalizing negative pressures for young women and holding more negative attitudes towards emotional expression. If difficulties with emotion regulation become so distressing they cannot be managed in healthy ways, DSH may be used as an immediate coping mechanism. In this way, body objectification and inauthenticity in relationships play an indirect role in the occurrence of DSH, while difficulties with emotion regulation play a more immediate role in the occurrence of DSH. Although causal relationships cannot be tested given the cross-sectional design, the indirect and direct paths identified in the model would support this theory.

Looking at patterns of associations of key components in the model, greater inauthenticity in relationships and greater body objectification contribute directly to more negative attitudes towards emotional expression and greater difficulties with emotion regulation. Being inauthentic in relationships is thought to reflect a greater tendency to inhibit the expression of one's true thoughts and feelings in order to please others. According to this study's findings, these beliefs are associated with more negative attitudes towards emotional expression (e.g., that expressing anger or vulnerability is socially dangerous) and greater difficulties with emotion regulation (e.g., difficulty being aware of and accepting negative emotions). Women who focus on maintaining social harmony and pleasing others (rather than expressing their true thoughts and feelings) may devote fewer attentional resources towards focusing on their own emotions or validating their emotional experiences. They may think that what they feel has little value or importance compared to what other people think. This is likely to lead to difficulties in abilities to effectively manage one's emotions.

Similarly, greater body objectification was found to be related to both more negative attitudes towards emotional expression and greater difficulty with emotion regulation. Body objectification is thought to reflect the internalization of pressures to look good and focus on how others view you rather than on one's internal, bodily experiences. It could be that young women who focus on how they look, rather than on how they feel, hold more negative attitudes towards emotional expression if they think voicing certain negative emotions could damage their social façade or seem unladylike. Physical appearance and keeping one's composure may be more important than voicing "ugly" emotions, such as anger, vulnerability, or jealously. Further, greater body

objectification was related to greater difficulties with emotion regulation; women who focus on how they look may be less aware of how they feel emotionally or feel less equipped to handle negative emotions, and would therefore be more at risk for experiencing difficulties with emotion regulation.

As Tolman and Porche (2000) hypothesize, pressures for young women regarding appearance and behavior can cause damaging consequences if internalized. This study's findings support this notion, highlighting the importance of addressing inauthenticity in relationships and body objectification in understanding young women's psychosocial functioning, including experiences with difficulties managing negative emotions. When treating DSH among young women, it is important to recognize how the internalization of these pressures can contribute to more negative attitudes towards emotional expression and greater difficulties with emotion regulation, thereby indirectly increasing the likelihood of DSH. Early prevention may be most helpful in combating the negative effects of these pressures, as females in the U.S. are exposed to these pressures frequently and early in life (e.g., Brown & Gilligan, 1992). Prevention efforts should focus on education regarding the risks of strict adherence to inauthenticity in relationships and body objectification. Young girls should be encouraged to identify and voice their true thoughts and feelings in appropriate ways, as well to be appreciative of the functioning and internal experiences of their bodies instead of their appearance.

Negative attitudes towards emotional expression were found to be directly related to greater difficulties with emotion regulation and indirectly related to a lifetime history of DSH. It is not surprising that more negative attitudes towards emotional expression are associated with greater difficulties with emotional awareness, acceptance, and impulse

control. If young women believe that expressing emotions is a sign of weakness or that one should keep one's emotions in control at all times, they may be less likely to validate their own emotional experiences or pay them much attention. Similarly, they may endorse other beliefs about expressing emotions, such as that it is rude or inappropriate, leading them to avoid expressing them in certain situations. These women may feel that it is easier to deny or inhibit one's emotional experience, especially if they are negative or socially unacceptable emotions, than to acknowledge them and be at risk for expressing them. In time, the over-control of negative emotions may contribute to the perception of negative emotions as overwhelming and difficult to manage. Prevention efforts could aim to increase young women's attitudes towards expressing their emotions in healthy ways and promoting healthy emotion regulation. For example, college wellness programs could provide "express yourself" outreach workshops and "emotional management" stress-reducing activities. For intervention, CBT and/or ACT seem like especially relevant treatments among women reporting difficulties acknowledging and accepting their negative emotional experiences, as these treatments can help facilitate awareness, understanding, and acceptance of negative emotional states.

Difficulties with emotion regulation were directly related to a lifetime history of DSH, unlike the other variables in the model. This finding is in accord with the affect regulation model, as this model suggests self-harm is often an attempt to regulate intense emotional pain (Nixon et al., 2002; Suyemoto, 1998). DSH may provide temporary emotional relief among women experiencing intense negative emotions, despite the negative emotional consequences (e.g., guilt, embarrassment) experienced later. These findings support the importance of addressing difficulties with emotion regulation in the

prevention and treatment of DSH. Practices that encourage healthy emotional awareness and management (e.g., mindfulness, meditation, and relaxation) and the promotion of healthy coping mechanisms during emotional distress (e.g., exercise) may be helpful in preventing DSH among young women. In targeting intervention efforts, Gratz and Gunderson (2006) have begun developing a specific approach that focuses on the contribution of emotion dysregulation to DSH. They outline steps to increase awareness and acceptance of negative emotions among DSH patients by drawing from treatment modalities specific to Dialectal Behavioral Therapy (DBT), including mindfulness and distress tolerance. Additionally, young women may benefit from identifying alternative, healthy coping mechanisms (e.g., exercise, meditation, social support) in order to avoid relying on DSH as a means for temporary emotional relief during the experience of negative emotions.

4.4 Post Hoc Analyses

In order to better understand the profile of participants who reported engaging in DSH, group differences among college women with and without a history of DSH were examined. In this way, it is possible to identify individuals who may best benefit from targeted DSH prevention before young adulthood. The analyses revealed that women who reported a history of DSH were more likely to be Caucasian or Asian, and were more likely to have a diagnosis of anxiety, depression, BPD, pain disorder, and sexual functioning disorder. Since anxiety and depression are often reported among pre-adolescent and adolescent females seeking mental health treatment, educating this population regarding the risks of DSH may be helpful. Specific to the treatment and prevention of DSH among college women, college counseling centers and community

centers working with young adult females may benefit from assessing for DSH among all women, given the prevalence rates identified by this and other studies (i.e., Brown et al., 2007; Gratz, 2006). An assessment of DSH should be conducted among women seeking treatment for anxiety, depression, BPD, pain disorder, and sexual functioning disorder.

Another group difference of note between participants with and without a history of DSH involves the expression of certain discrete emotions. Participants who reported a history of DSH were more likely to report greater expressions of anxiety and apathy to a close friend. The greater frequency of the expression of anxious feelings among this group is congruent with the finding that women with a history of DSH were more likely to be diagnosed with anxiety. However, increased expressions of apathy may reflect a masking of emotions rather than increased feelings of true indifference. In my clinical experience, distressed adolescents and young adults often state that they "don't care" or "don't know" how they feel. Instead of expressing more vulnerable or aggressive emotions, these women may lack the insight and ability to identify emotions or blunt themselves to intense emotions, such as anger or sadness. In line with Brody's (1999) theories, young women may perceive these emotions as too risky socially or unsafe interpersonally to express verbally. This may explain why women with a history of DSH were *not* more likely to report increased expressions of negative emotions (i.e., anger, sadness, jealousy and fear) to a close friend or romantic partner, despite reporting increased feelings of emotional distress.

Several group differences regarding childhood experiences emerged, suggesting certain significant childhood events may have contributed to DSH. Participants with a history of DSH were more likely to experience neglectful (e.g., "ignored you") magnified

(e.g., “got upset”), or punishing (e.g., “punished you”) caregiver reactions, and were less likely to experience rewarding (e.g., “comforted you”) reactions after the expression of emotion. These findings support Linehan’s (1993) theories regarding childhood invalidating environments and the development of BPD and later risk for DSH. Girls whose caregivers do not respond in comforting, supportive ways when they express negative emotions, and are instead punished or ignored, may be at risk for engaging in DSH during young adulthood. Future research should investigate if and how early socializations of emotions from caregivers contribute to later inauthenticity in relationships, negative attitudes towards emotional expression, or difficulties with emotion regulation.

Among participants who reported a history of DSH, women reported first engaging in self-harm during early adolescence (between the ages of 11 and 16), with the most common form of DSH (i.e., cutting), occurring before the age of 15. Providing age-appropriate psychoeducation for pre-adolescent females may be especially important, as multiple sources of media (i.e., music lyrics, celebrity tabloids, movies) expose pre-adolescents to references of DSH. Accurate and helpful information regarding DSH should be made available to youth prior to adolescence. Based on this study, psychoeducation focusing on expressing one’s true thoughts and feelings in healthy ways, addressing maladaptive cognitions and attitudes towards emotional expression, and learning effective emotion regulation skills may help prevent the development of DSH among young girls.

Additionally, among participants with a history of DSH, the context in which participants engaged in the behavior was examined. Most participants who reported a

history of DSH and responded to the item assessing interpersonal context of DSH (N = 113) reported being alone when engaging in DSH (85.8%; n = 97), and a minority reported being with others when engaging in DSH (14.2%; n = 16). These data support the idea that young women who engage in self-harm may not simply be seeking attention from others or experimenting with self-harm in a peer group setting. Laye-Gindhu and Schonert-Reichl (2005) found that young women typically report feelings of loneliness, sadness, depression, and deep despair prior to engaging in DSH. Understanding the context and emotional antecedents of DSH reflects the isolated and shameful experience women may associate with the act of self-harm. This further underscores the need for clinicians to explicitly assess for DSH rather than rely on young women to self-report on a behavior about which they may be ashamed or embarrassed.

4.5 Limitations

This study has a number of limitations that merit mention. First, this study utilized a cross-sectional design, thereby excluding the possibility of causal interpretations. Future researchers should consider conducting longitudinal studies to adequately explore if a lifetime history of DSH is predicted by the variables examined in this study. Despite this study's cross-sectional design, two variables in the model reflecting the internalization of negative sociocultural pressures for young women (i.e., inauthenticity in relationships and body objectification) theoretically precede the other variables in the model. Impett, Sorsoli, Schooler, Henson, and Tolman (2008) and Impett and colleagues (2006) propose a "feminist psychodynamic developmental model" (Impett et al., 2006, p. 132) to theorize that these pressures are salient and damaging to girls' development at an early age, as females often form an identity around the ways others' perceive them and

their relationships with others. For example, a girl's sense of identity is often not formed independent of direct and indirect feedback from her siblings, family, close friends, teachers, and/or larger peer group. Thus, the internalization of these pressures is thought to begin at a very young age, theoretically preceding the other variables in the model. It would be interesting to track women's internalization of these pressures across development, including from early to late adolescence or early to late college. A longitudinal approach could identify if women tend to change the way they negotiate these pressures and if these potential changes affect outcomes, such as DSH, differentially across young adulthood. For example, the internalization of ideologies of femininity may play a stronger role in the occurrence of DHS among young adolescents compared to college women, if women shift to more broad, less restrictive conceptions of femininity during college. Alternatively, difficulties with emotion regulation may play a stronger role in the occurrence of DSH among young adolescents compared to college women, as adolescents may experience greater difficulties understanding and managing their emotions during the development of brain centers responsible for emotion regulatory capabilities.

Additionally, one limitation of this study involves the sample chosen, as college women aged 18-25 from the Southeast represent a specific demographic group. The use of this sample limits the generalizability of these findings to other populations, and the inclusion of females only prevents conclusions drawn regarding DSH among males. However, of the focus on college women in this study was purposeful, as DSH has not been extensively studied among this population. Further, the internalization of inauthenticity in relationships and body objectification are most relevant to young

women. Future studies may benefit from investigating other, similar sociocultural pressures specific to young men that may inform the understanding of DSH among college males. For example, men are often socialized to avoid expressing vulnerability or sadness or asking for help in relationships (Chu, Porche, & Tolman, 2005); attempts to appear "macho" may lead to the inhibition of certain negative emotions (e.g., sadness, helplessness), thereby potentially contributing to difficulties with emotion regulation and DSH. Findings from this study support the notion that sociocultural pressures for young adults are an important arena to investigate when seeking to understand the occurrence of DSH. Research investigating pressures specific to women and their relationships to DSH should not supersede efforts to investigate pressures specific to young men and negative outcomes potentially associated with these pressures (e.g., DSH, substance abuse, externalizing difficulties).

Similarly, the occurrence of DSH among non-college populations should be explored as well. College women often have more affluent family backgrounds than their peers who do not enter college, and various socio-economic status differences may hold implications for the occurrence of DSH. For example, families from lower socio-economic backgrounds may endorse less restrictive beliefs about expressing negative emotions within the family, potentially decreasing their risk for self-harm. Alternatively, youth from less affluent homes could experience greater discrimination and psychological distress, potentially increasing their risk for self-harm. However, research is limited regarding the prevalence of DSH among community samples of young adults. Further, research conducted regarding self-harm among community samples tends to utilize a single, screening item rather than a full questionnaire, such as the DSHI. Future

studies may benefit from assessing DSH among non-collegiate, community samples of young adults by using a comprehensive self-harm questionnaire.

One additional limitation of this study is that the sample consisted of a limited amount of ethnically diverse students. Since individuals from different ethnicities may hold various culturally-specific beliefs regarding inauthenticity in relationships, body objectification, or emotional expression, future research may benefit from investigating more diverse samples. Strengths from non-Caucasian cultures may be highlighted by examining ethnically diverse samples more closely. Specifically, results from this study suggest that African American college women are less likely to engage in DSH compared to other ethnic groups. Previous research found that African American girls were significantly less likely to endorse strict notions of inauthenticity in relationships and body objectification than their white or Latina peers (Tolman & Porche, 2000). Focus groups and qualitative studies could explore potential reasons for these findings. For example, if focus groups reveal that African American women can more easily identify powerful, outspoken female role models, women from other ethnicities could be encouraged to explore identifying these women as role models for their own lives, regardless of ethnicity. Alternatively, further studies could uncover that research to date is not assessing the relevant stereotypes experienced by specific ethnic groups related to body image and interpersonal behaviors.

Similarly, this study was limited in that data were gathered only from participants in the Southeast, and findings may not apply to other regions in America. Regional differences may exist in levels of ideologies of femininity or attitudes towards emotional expression held by college women. For example, women in the Northwest may hold

more liberal attitudes about expressing negative emotions to others or less stereotypical ideologies of femininity. Alternatively, women in the Northeast may report similar levels of attitudes towards emotional expression as women in the Southeast, but they may have very different reasons for doing so. Future studies may investigate potential regional differences among women, again by the use of focus groups and other qualitative approaches. It seems likely that various factors, including geographic region, race, family background, and SES, may interact in very interesting ways to influence the occurrence of DSH.

Also, the self-report methodology used to assess attitudes towards emotional expression, emotion dysregulation, and DSH is vulnerable to shared method variance. However, the use of self-report to assess DSH has the advantage of allowing individuals to report on behaviors of which they are the most accurate source. Often individuals do not feel comfortable telling others, including therapists, that they engage in DSH or are embarrassed or ashamed of this behavior (Skegg, 2005). Further, an individual's personal attitudes and inner emotional experiences are best assessed by the individual himself or herself. Thus, self-report was the preferred methodology. It would be interesting to supplement self-reports of attitudes towards emotional expression and emotion dysregulation with objective observations of actual behavior in a controlled environment. For example, future studies could observe women's physiological and behavioral manifestations of emotional experience (e.g., crying, scowling) when discussing emotional memories or when viewing emotional stimuli.

Another limitation specific to this study's methodology involves the limited data gathered from items assessing DSH frequency and duration. Contrary to the study's

goals, estimating DSH frequency was not possible given the open-ended format of the frequency items on the DSHI. It is interesting to note that Gratz (2001) did not provide the method by which she calculated DSH frequency, but she did provide the method for frequency of methods (i.e., summation of number of methods reported). Future studies should consider assessing DSH duration and frequency using forced-choice options, such as a Likert scale. In fact, Buckholdt, Gilbert, Parra, and Jobe-Shields (2009) adapted the DSHI by including a 4-point Likert scale, asking participants to respond to frequency from 1 (yearly) to 4 (daily) for each method of DSH. They then multiplied number of methods used by frequency by duration, calculating a total frequency estimate (Buckholdt et al., 2009). However, this method may be more cumbersome than necessary. A simple way to assess DSH duration could be to ask participants to estimate the length of time they engaged in any type of self-harm (rather than each specific type), from choices ranging from one day to many years. DSH frequency could be measured more specifically, For example, participants could be asked to indicate frequency for each method of DSH used with the following options:

1	2	3	4	5	6	7
1-2 times	3-5 times	5-10 times	11-25 times	26-50 times	51-100 times	> 100 times

Thus, the total frequency could be calculated by summing each participant's responses across the 17 methods of DSH assessed. The range of DSH frequency would range from 1 (i.e., one method used 1-2 days) to 119 (i.e., 17 methods each used more than 100 days).

Additionally, the fact that several participants were unable to provide an accurate response to frequency of DSH (e.g., "too many to count" or "did not respond") may shed light into the function DSH serves for certain individuals. In fact, for the most common form of DSH, cutting, almost 70% of individuals did not provide this information. Individuals who did not respond to DSH frequency may either be embarrassed to report the frequency, may be unable to remember due to a potential dissociative state experienced during DSH, or may find recollection of DSH frequency too distressing to attempt. Again, these possibilities stress the sensitive nature of the DSHI. If a Likert scale were to be used to assess DSH frequency and duration, it would be important to use Gratz's (2001) original precautions to allow participants to skip any items on the DSHI.

In addition to assessing the frequency of DSH, it may be helpful to assess the severity of DSH, because frequency, severity, and duration may be similar, yet distinct constructs. Severity of DSH could be measured by the number of trips to the hospital, the frequency of medical attention warranted, or the extent of scarring caused. The assessment of both frequency and severity of DSH would highlight the differences between the two, as less severe forms of self-harm (e.g., preventing wounds from healing) are quite different than more severe forms of self-harm (e.g., deep and large cuts with a razor, purposeful constriction of one's airway), even if the former is performed more frequently than the latter. In my clinical experience, some young women engage in less severe forms of self-harm daily without inflicting serious harm to their physical well-being. Other individuals engage in self-harm less frequently yet engage in behavior serious enough to necessitate stitches or other medical attention, or they may even inflict harm so severe that they threaten their life unintentionally. Similarly, the factors that

contribute to these two different manifestations of DSH may be different. For example, greater difficulties with emotion regulation may play a stronger role in frequent yet less severe types of DSH or utilized for longer durations (e.g., many years), while greater lifetime mental health diagnoses may play a stronger role in severe yet less frequent types of DSH. Future research may benefit from testing models specific to the severity and frequency of DSH.

Another recommendation for future studies involves the assessment of inauthenticity and body objectification. Although this study examined the internalization of sociocultural pressures for young women, this study did not include measurement of these factors at the cultural or social levels. Other studies have examined young women's exposure to specific pressures in the media, for example, by measuring the number of times television shows portray girls as relationally aggressive (Coyne, Archer, & Eslea, 2006) or the amount of advertisements in magazines that contain very skinny women (Peterson, Wingwood, DeClemente, Harrington, & Davies, 2007). Future studies examining the internalization of pressures investigated in this study (i.e., body objectification and inauthenticity in relationships) may benefit from including an assessment of the frequency of and exposure to these messages in the media and in peer groups. For example, studies could assess the frequency of messages in magazine articles, T.V. programs, or movies for girls to "be nice" in relationships and "look good" physically. Often this message is subtly conveyed, and investigation of these pressures would have to carefully examine sources (e.g., the overall plot of a T.V. episode, the character development of leading female roles in movies, or camera angles in music videos). Also, future studies could assess the frequency specific peer groups discuss

pressures to “look good” or “act nice” in relationships. Such messages are often covertly conveyed in peer groups, for example through social norms (e.g., putting oneself down when trying on clothing; asking peers, “does this make me look fat?” or making fun of others who do not act or look a certain way). The assessment of these factors at the sociocultural level would add to our understanding of how the internalization of negative pressures for young women contributes to a higher likelihood of DSH.

Finally, the generalizability of this study’s findings is limited, as participants were given the option to omit DSH items they found distressing. Participants who opted to skip these items also tended to report increased psychological distress, so it is likely that these participants skipped the DSHI due to personal relevance. They may have had a history of engaging in DSH or currently be experiencing difficulty abstaining from DSH. Thus, the prevalence of DSH among this sample (i.e., 29.7%) could be an under-representation of actual lifetime DSH prevalence among young women at UNCC. However, the choice to allow participants to skip these items was an ethical decision and supported by the DSHI author’s recommendations (i.e., Gratz, 2006).

4.6 Contributions

Despite these limitations, this study provided a number of useful contributions in understanding DSH among college women. These contributions entail relevance for both research and clinical practice. This study confirms other research findings that suggest DSH is fairly common among college women in the U.S. and that targeting DSH is important for prevention and intervention efforts among college health and wellness programs. Additionally, participants reported rates of DSH on par with other studies utilizing the DSHI (e.g., Gratz, 2006) and higher than rates reported by studies utilizing

single screening items (e.g., Heath, Ross, Toste, Nedecheva, & Charlebois, 2008). Thus, this study supports the notion that DSH should be assessed via the DSHI or other detailed instrument rather than a single screening item.

Since DSH seems fairly prevalent among college women, clinicians and professionals working with youth (e.g., pediatricians, teachers) should be encouraged to consider asking about DSH when DSH is suspected. Psychologists, psychotherapists, and other professionals working clinically with youth should regularly ask if self-harm is a presenting problem, especially among young women reporting depression, anxiety, and other psychological difficulties. Professionals working with community samples of youth should be aware that self-harm may be present, especially among youth who seem to be experiencing psychological difficulties or who exhibit other physical signs (e.g., wearing long clothing in summer, visible cuts). When discussed, self-harm should be directly asked about in a non-threatening and calm manner, and referrals to psychotherapists should be made when appropriate.

Further, this study provides evidence that DSH is explained by a number of risk factors, including greater internalization of sociocultural pressures for young women. Targeting inauthenticity in relationships and body objectification among college women seeking help at counseling centers may help prevent difficulties commonly experienced by this population, including DSH. Further, middle school, high school, and college awareness campaigns specific to these pressures may help empower women to become less vulnerable and prevent the development of related difficulties. Organizations such Riot Grrl, programs like the Rock and Roll Camp for Girls, and media like *Bust* magazine

and *theFBomb.org* (a feminist blog written by a 16-year-old girl) are all good examples of such endeavors.

Additionally, this study identified specific psychological beliefs which were associated with a higher likelihood of DSH. Both the ATEES and DERS constructs were found to contribute to increased likelihood of DSH. Investigation of the components of the ATEES reveals that two subscales are primarily cognitive in content (i.e., Social rejection, and Sign of weakness), while two subscales are behavioral in content (i.e., Bottle up and Hide).This suggests that negative attitudes towards emotional expression contain behavioral and cognitive components. Based on the associations of the ATEES subscales with DSH, it seems likely that prevention and interventions for DSH can profit from addressing both maladaptive behaviors and cognitions. Acceptance and Commitment Therapy (ACT) and/or Cognitive Behavioral Therapy (CBT) may be especially appropriate for this approach. ACT and CBT can be used to facilitate awareness and acceptance of inner emotional states, challenge maladaptive beliefs, foster the formation of new beliefs and behaviors in response to negative emotions.

Similarly, greater difficulty with emotion regulation was found to be directly related to a higher likelihood of DSH. For example, a tendency to avoid paying attention and accepting one's emotions and the experience of negative emotions as overwhelming both seem to be related to a higher likelihood of DSH. These findings hold relevance for prevention and intervention efforts among college women with a history of DSH. Again, ACT, CBT, and mindfulness techniques seem especially relevant, as these interventions involve increasing emotional awareness, challenging negative beliefs about emotions, and increasing emotion regulation skills. These treatments may be supplemented by and

combined with efforts aimed at increasing awareness regarding the risks of internalizing inauthenticity in relationships and body objectification, with a focus on the ways in which these constructs interact. For example, college women experiencing difficulties validating or listening to their inner emotional experiences may benefit from mindfulness and acceptance therapies, with a concentration on how media messages (e.g., advertisements, music videos) tend to invalidate women's thoughts and feelings by emphasizing women's bodies. Women may be encouraged to learn how to direct their attention to their inner thoughts and feelings, express their emotions in supportive, validating interpersonal relationships, or identify relaxation and mindfulness techniques helpful in regulating emotional distress.

In sum, these findings suggest DSH is relevant to many college women and are informed by a complex model including sociocultural and individual level risk factors. Findings hold relevance for future studies and clinical efforts aimed at helping women avoid and decrease the occurrence of DSH.

Figure 1. Cycle of DSH According to the Affect Regulation Model

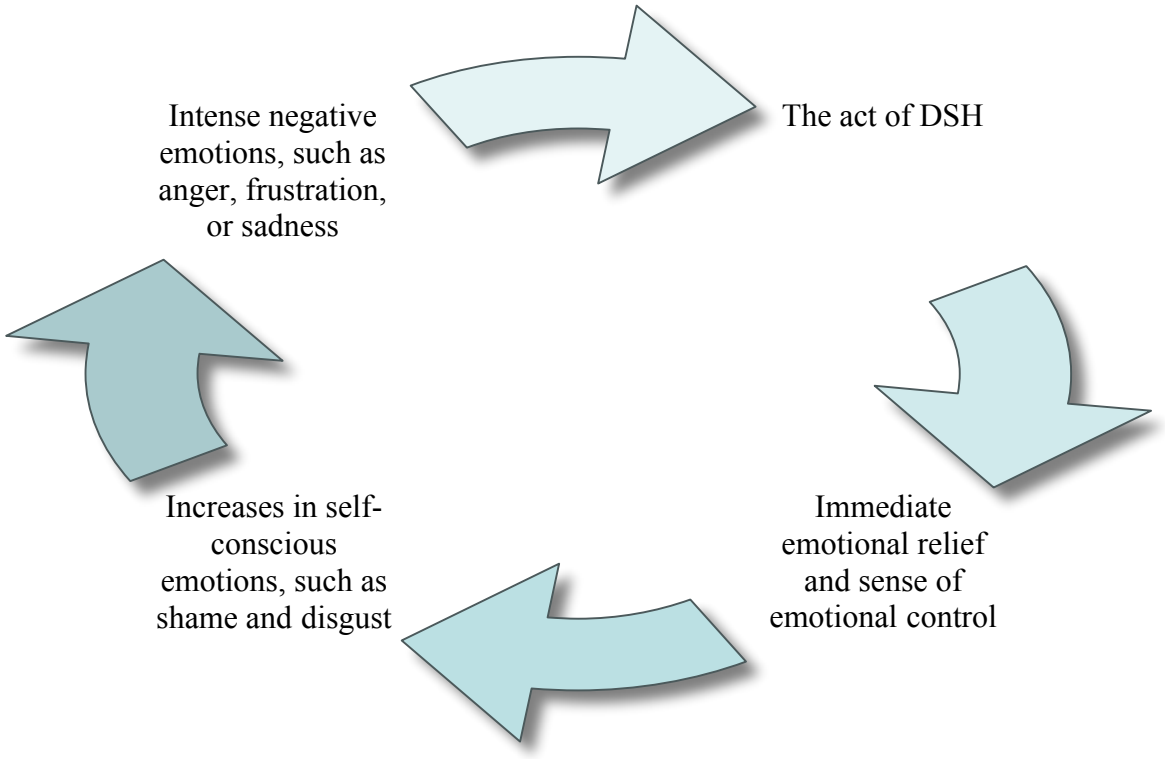
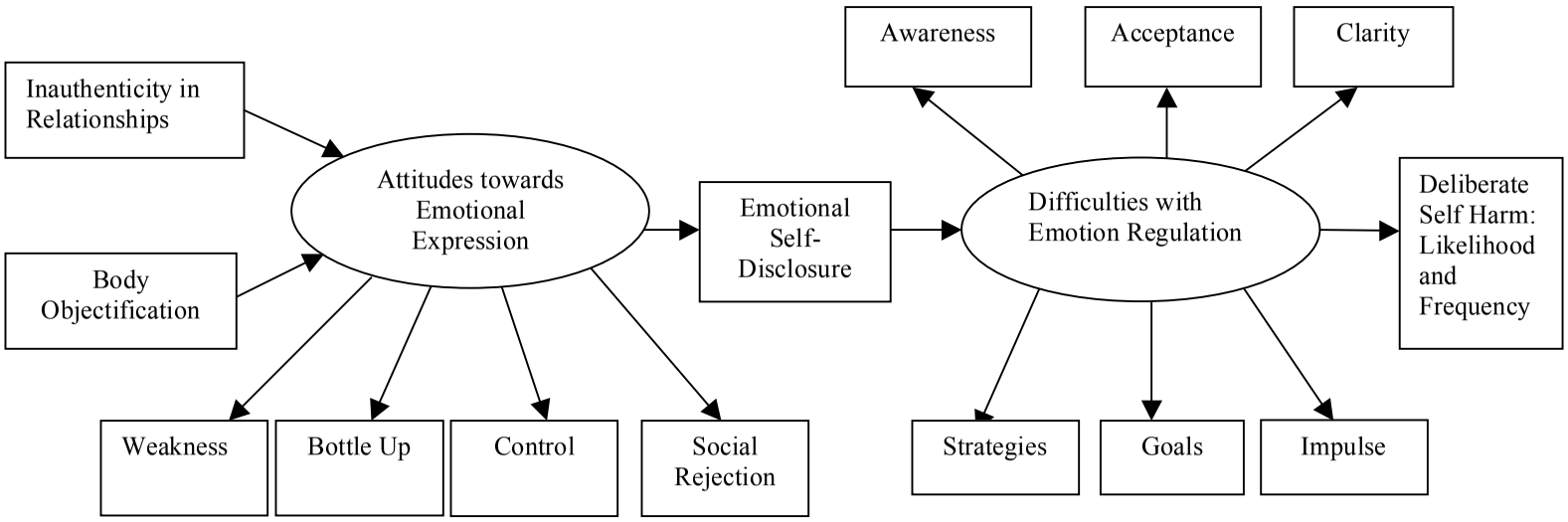
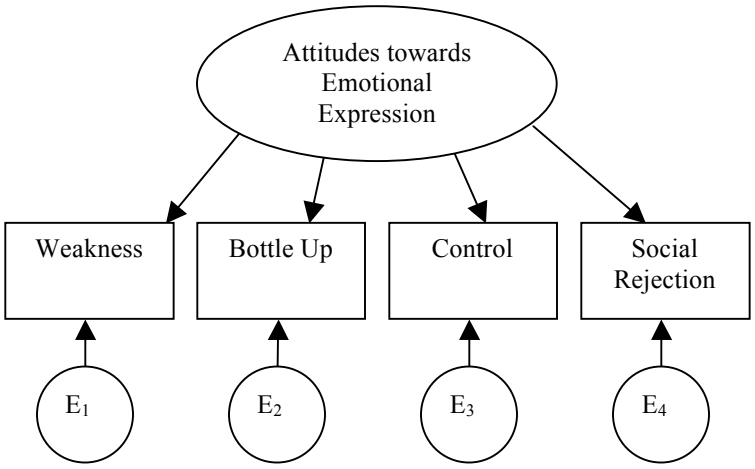


Figure 2. Proposed Model



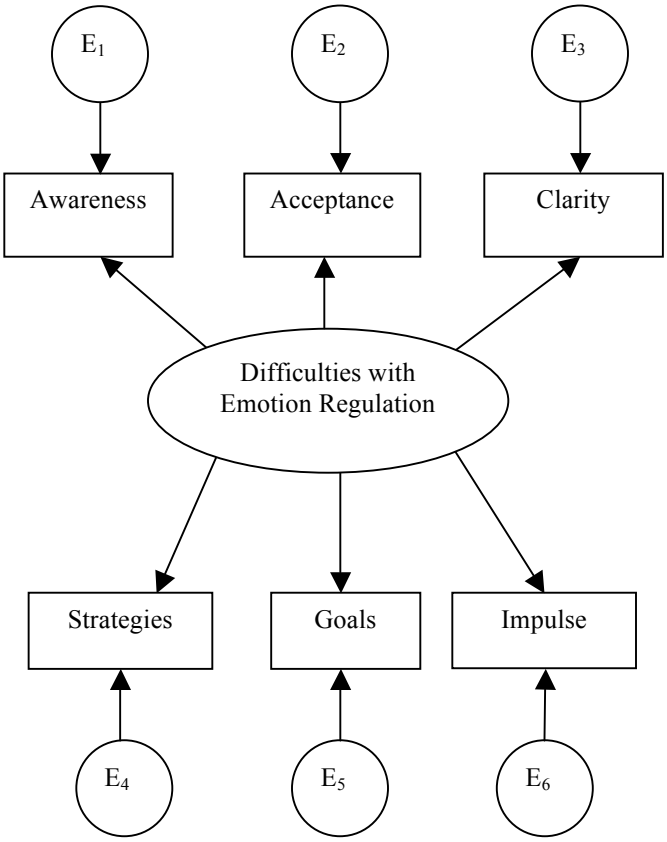
Note: Error measurements were excluded from the figure to increase clarity of presentation. Two models were tested: 1) Likelihood of DSH, and 2) Number of methods of DSH.

Figure 3. Confirmatory Factor Analysis (CFA) for the Latent Construct Attitudes towards Emotional Expression



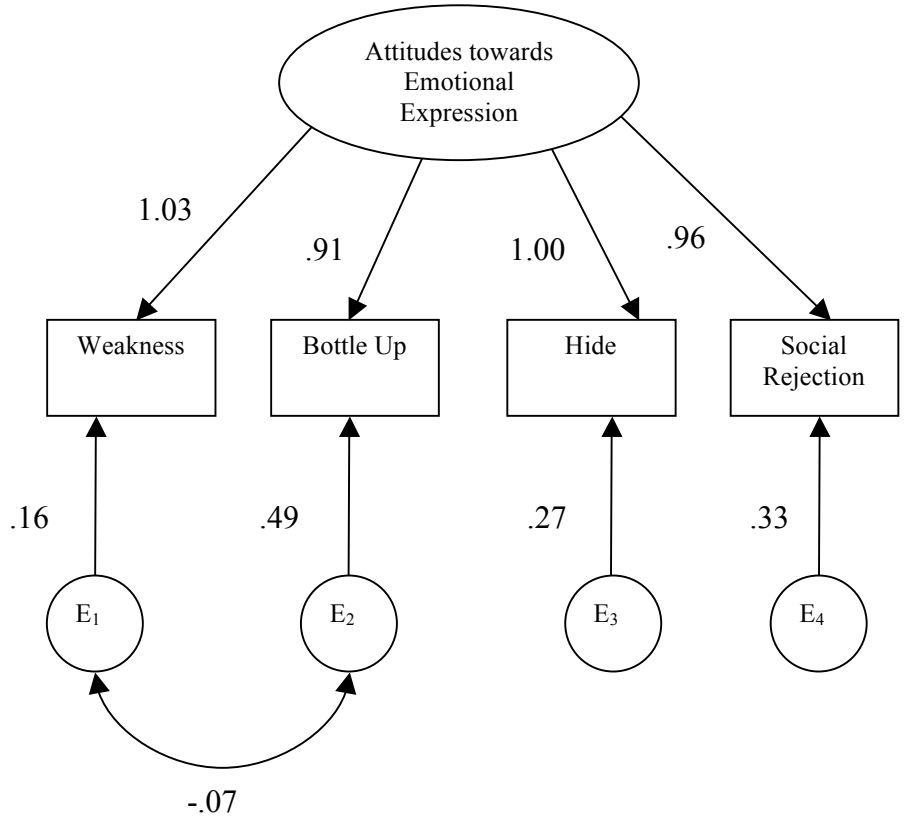
Note: E_is represent error measurements.

Figure 4. Confirmatory Factor Analysis (CFA) for the Latent Construct Difficulties with Emotion Regulation



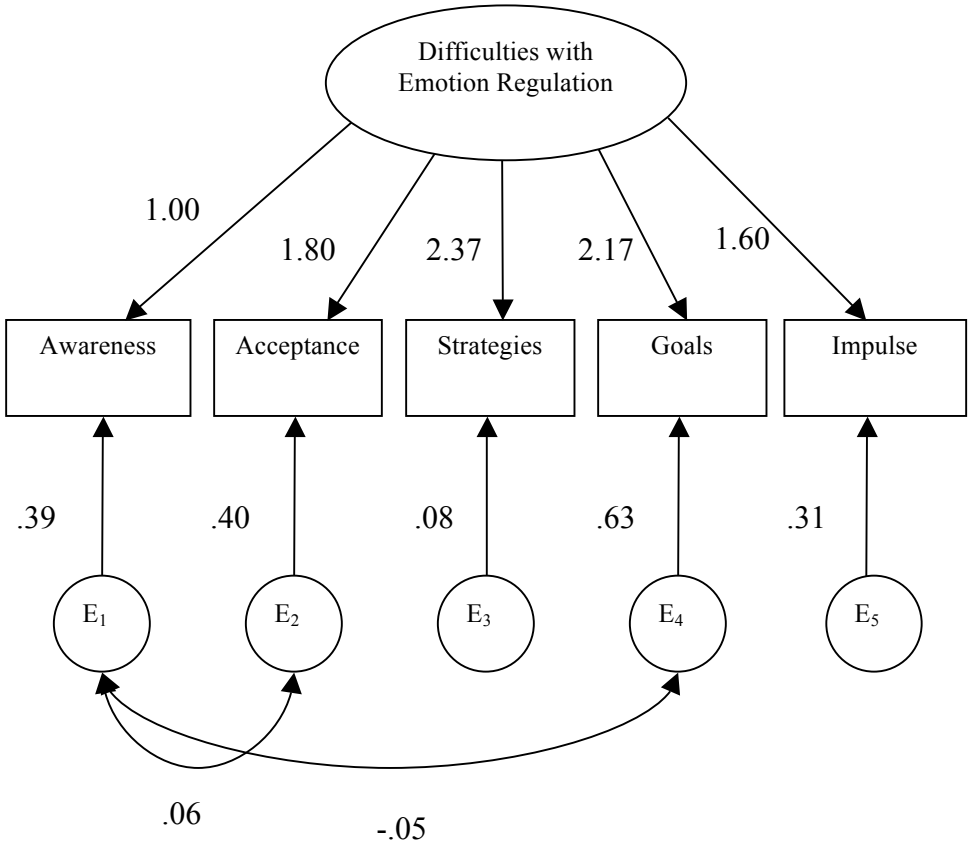
Note: E_is represent error measurements.

Figure 5. Identified CFA Model for Attitudes towards Emotional Expression



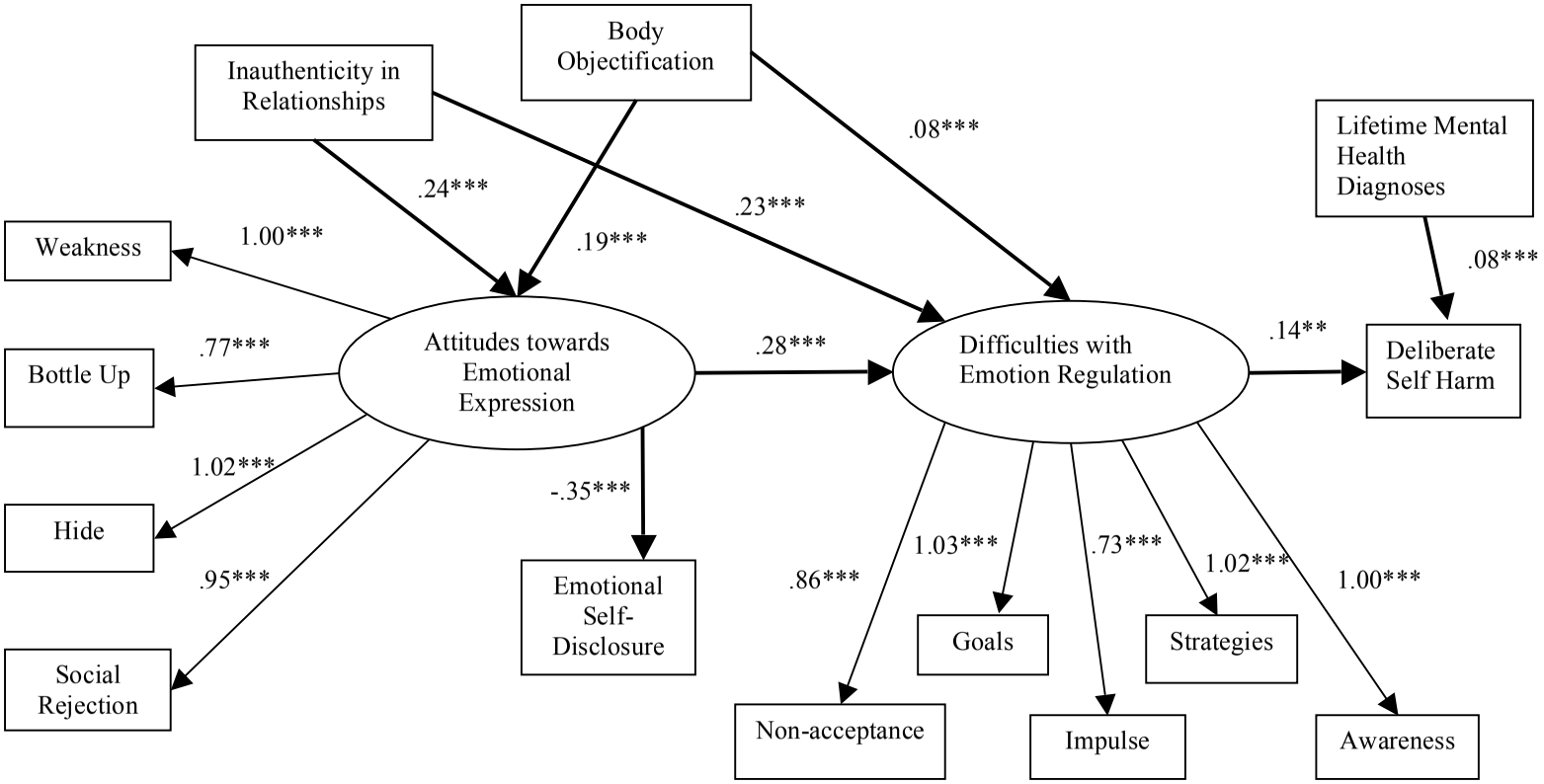
Note: E_is represent error measurements.

Figure 6. Identified CFA model for Difficulties with Emotion Regulation



Note: E_is represent error measurements.

Figure 7. Identified Structural Model Explaining DSH Likelihood



Note. Heavier lines represent structural paths, while lighter lines represent measurement model paths.

Table 1. Descriptive Statistics for Variables of Interest

	M	*SD*
Inauthenticity in relationships [a]	2.88	0.76
Body objectification [a]	2.84	1.06
ATEES total	2.44	0.66
Weakness [b]	1.88	0.82
Bottle up [b]	2.76	0.94
Control [b]	2.74	0.65
Social rejection [b]	2.36	0.81
ESDS to close friend total	3.32	0.77
Anger [c]	3.34	1.02
Sadness [c]	3.41	0.98
Anxiety [c]	3.46	0.90
Jealousy [c]	3.00	0.87
Fear [c]	3.15	1.10
Calmness [c]	3.34	0.94
Apathy [c]	2.81	0.98
Happiness [c]	4.09	0.77
ESDS to romantic partner total	3.41	0.91
Anger [c]	3.34	1.10

Table 1 Continued

	M	*SD*
Sadness [c]	3.45	1.10
Anxiety [c]	3.49	1.03
Jealousy [c]	3.04	
Fear [c]	3.38	1.26
Calmness [c]	3.54	0.99
Apathy [c]	2.92	1.13
Happiness [c]	4.20	0.83
DERS total		
Awareness [b]	2.40	0.82
Acceptance [b]	1.89	0.80
Clarity [b]	2.11	0.69
Strategies [b]	1.92	0.72
Goals [b]	2.93	0.95
Impulse [b]	1.74	0.71

[a] Subscale of the AFIS; scores ranged from 1 (strongly disagree) to 6 (strongly agree). [b] Scores ranged from 1 (disagree very much) to 5 (agree very much). [c] Scores ranged from 1 (never) to 5 (almost always). [d] Scores ranged from 0 (almost never) to 3 (almost always).

Note. Subscales were based on original factor structure according to the author(s) of the measures.

Table 2. Intercorrelations among Variables of Interest

Measure	1	2	3	4	5	6	7	8	9
AFIS									
1. Inauthenticity in relationships	--								
2. Body objectification	.44***	--							
ATEES									
3. Social rejection	.34***	.32***	--						
4. Bottle up	.52***	.31***	.48***	--					
T 5. Control	.26***	.19***	.56***	.50***	--				
6. Weakness	.46***	.42***	.68***	.59***	.56***	--			
7. Total	.50***	.39***	.83***	.81***	.77***	.86***	--		
8. ESDS (total)	-.25***	-.19***	-.20***	-.25***	-.15**	-.18***	-.24***	--	

* $p < .05$. ** $p < .01$. ***$p < .001$.

Table 2 Continued

	1	2	3	4	5	6	7	8	9
DERS									
9. Awareness	.38***	.33***	.43***	.44***	.23***	.39***	.47***	-.33***	--
10. Acceptance	.42***	.32***	.38***	.30***	.26***	.40***	.41***	-.10*	.22***
11. Clarity	.35***	.25***	.33***	.31***	.11*	.34***	.35***	-.15**	.56***
12. Strategies	.42***	.37***	.32***	.26***	.19***	.45***	.38***	-.09	.28***
13. Goals	.23***	.22***	.07	.09	-.02	.18***	.11*	.01	.06
14. Impulse	.24***	.21***	.25***	.09*	.06	.29***	.22***	-.05	.21***
15. Total	.48***	.40***	.42***	.35***	.20***	.49***	.46***	-.16**	.54***
16. DSH (yes/no)	.14**	.16**	.04	.15**	.09	.19***	.15**	.08	.06

* $p < .05$. ** $p < .01$. ***$p < .001$.

Table 3. Descriptive Statistics and Unstandardized Path Coefficients for the ATEES and DERS Measurement Models

	M	*SD*	Estimate
ATEES total	2.40	0.66	
Weakness	1.88	0.82	1.03***
Bottle up	2.76	0.94	0.91***
Hide	1.85	0.86	1.00***
Social rejection	2.19	0.88	0.96***
DERS total	2.03	0.56	
Nonacceptance	1.82	0.82	1.80***
Awareness	2.40	0.82	1.00***
Impulse	1.53	0.72	1.60***
Strategies	1.86	0.73	2.37***
Goals	2.85	1.01	2.17***

***$p < .001$

Table 4. Intercorrelations among Variables of Interest after CFA Revisions

	1	2	3	4	5	6	7	8
AFIS								
1. Inauthenticity in relationships	--							
2. Body objectification	.44***	--						
ATEES								
3. Social rejection	.45***	.39***	--					
4. Bottle up	.52***	.31***	.51***	--				
5. Weakness	.34***	.32***	.65***	.48***	--			
6. Hide	.29***	.38***	.60***	.52***	.69***	--		
7. Total	.49***	.31***	.79***	.82***	.84***	.78***	--	
8. ESDS Total	-.26***	-.20***	-.20***	-.32***	-.23***	-.21***	-.30***	--

* $p < .05$. ** $p < .01$. ***$p < .001$.

Table 4 Continued

	1	2	3	4	5	6	7	8	9
DERS									
9. Awareness	.38***	.33***	.32***	.41***	.42***	.36***	.47***	-.31***	--
10. Acceptance	.41***	.32***	.37***	.30***	.37***	.33***	.41***	-.12*	.22***
11. Strategies	.42***	.36***	.37***	.24***	.28***	.26***	.32***	-.06	.28***
12. Goals	.23***	.20***	.13**	.09	.05	.01	.07	.05	.06
13. Impulse	.18***	.18***	.24***	.09	.21***	.18***	.42***	-.03	.21***
14. Total	.47***	.39***	.42***	.34***	.39***	.33***	.67***	-.13**	.54***
15. DSH (yes/no)	.14**	.16**	.20***	.15**	.04	.09	.14**	.08	.06

* $p < .05$. ** $p < .01$. ***$p < .001$.

Table 4 Continued

	10	11	12	13	14	15
DERS						
9. Awareness						
10. Acceptance	--					
11. Strategies	.59***	--				
12. Goals	.33***	.57***	--			
13. Impulse	.40***	.58***	.42***	--		
14. Total	.74***	.86***	.67***	.69***	--	
15. DSH (yes/no)	.17***	.21***	.14**	.11*	.21***	--

* $p < .05$. ** $p < .01$. ***$p < .001$.

Table 5. Squared Multiple Correlations Explaining DSH Lifetime History

Parameter	Estimate
Body objectification	.00
Inauthenticity in relationships	.00
Lifetime mental health diagnoses	.00
ATEES	.22
Weakness	.69
Bottle up	.38
Hide	.64
Social rejection	.58
ESDS	.09
DERS	.31
Awareness	.60[a]
Acceptance	.43
Strategies	.68
Goals	.29
Impulse	.40
DSH	.07

[a] This term's squared multiple correlation was estimated after following guidelines by Hayduk (2006). This calculation was performed, because initial calculations resulted in a negative squared multiple correlation due to the shared variance of its error term with two other error terms (i.e., the error variance exceeded the variance caused by the construct).

Table 6. Effects Composition Explaining DSH Lifetime History

	Endogenous variables					
	ATEES		DERS		DSH	
Causal variable	Unst.	St.	Unst.	St.	Unst.	St.
Inauthenticity in relationships						
Direct effect	.24***	.26	.23***	.28	--	--
Total indirect effects	--	--	.06***	.07	.04***	.07
Total effect	.24***	.26	.29***	.36	.04***	.07
Body Objectification						
Direct effect	.19***	.29	.08***	.14	--	--
Total indirect effects	--	--	.05***	.08	.02***	.04
Total effect	.19***	.29	.13***	.23	.02***	.04
Lifetime mental health diagnoses						
Direct effect	--	--	--	--	.08***	.16
Total indirect effects	--	--	--	--	--	--
Total effect	--	--	--	--	.08***	.16
ATEES						
Direct effect	--	--	.28***	.30	--	--
Total indirect effects	--	--	--	--	.04	.06
Total effect	--	--	.28***	.30	.04	.06
ESDS	--	--	--	--	--	--

Table 6 Continued

DERS						
Direct effect	--	--	--	--	.14***	.19
Total indirect effects	--	--	--	--	--	--
Total effect	--	--	--	--	.14***	.19

Note. Unst., unstandardized; St., standardized

*$p < .05$; **$p < .01$

Table 7. Summary of One-Way ANOVAs Examining DSH Group Differences

Source	DSH history	No DSH history	*df*	*F*	η2	High DSH	Low DSH	*df*	*F*	η2
Lifetime mental health diagnoses			1	20.98***	.05			1	9.92**	.07
N	134	313				63	71			
M	0.70	0.30				1.02	0.42			
SD	1.12	0.71				1.33	0.82			
Current anxiety			1	27.90***	.06			1	4.93*	.04
N	134	313				63	71			
M	0.83	0.59				0.92	0.75			
SD	0.46	0.42				0.52	0.40			

Note. η2 = eta-square.

* $p < .05$. ** $p < .01$. ***$p < .001$.

Table 7 Continued

Source	DSH history	No DSH history	*df*	*F*	η2	High DSH	Low DSH	*df*	*F*	η2
Current depression			1	27.25***	.06			1	9.59**	.07
N	134	313				63	71			
M	0.89	0.64				1.04	0.76			
SD	0.54	0.43				0.61	0.42			
ESDS anxiety			1	4.85*	.01			1	.07	.00
N	134	313				63	71			
M	3.61	3.40				3.63	3.59			
SD	0.87	0.90				0.88	0.87			
ESDS apathy			1	4.29*	.01			1	.16	.00
N	134	313				63	71			
M	2.96	2.75				3.00	2.93			

Note. η2 = eta-square.

* $p < .05$. ** $p < .01$. ***$p < .001$.

Table 7 Continued

Source	DSH history	No DSH history	*df*	*F*	η2	High DSH	Low DSH	*df*	*F*	η2
SD	0.95	0.99				0.99	0.93			
EAC Neglect			1	17.28***	.04			1	4.16*	.03
N	134	313				63	71			
M	1.76	1.42				1.94	1.61			
SD	0.95	0.70				1.05	0.82			
EAC Magnify			1	15.20***	.03			1	1.74	.01
N	134	313				63	71			
M	2.04	1.73				2.15	1.95			
SD	0.88	0.72				0.85	0.90			

Note. η2 = eta-square.

* $p < .05$. ** $p < .01$. ***$p < .001$.

Table 7 Continued

Source	DSH history	No DSH history	*df*	*F*	η2	High DSH	Low DSH	*df*	*F*	η2
EAC Punish			1	13.81***	.03			1	2.04	.02
N	134	313				63	71			
M	1.78	1.50				1.89	1.68			
SD	0.85	0.67				0.96	0.72			
EAC Reward			1	9.16**	.01			1	5.00*	.03
N	134	313				63	71			
M	3.90	4.20				3.69	4.09			
SD	1.07	0.92				1.18	0.93			

Note. η2 = effect size.

* $p < .05$. ** $p < .01$. ***$p < .001$.

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APPENDIX A: MEASURES

Background Information

1. Today's date _____

2. What is your sex? [ ] Male [ ] Female

3. How old are you? _____ years old

4. What is your major? _____

5. What is your cumulative UNCC Grade Point Average? _____

6. Are you a member of a sorority or fraternity? [ ] Yes [ ] No

7. At the present time, what is your official class standing?

[ ] Freshman [ ] Sophomore [ ] Junior [ ] Senior [ ] Other _____

7. What is your ethnicity?

[ ] Black, African, African-American
[ ] American Indian, Eskimo

8. What is your ethnic background?

[ ] Black, African, African-American
[ ] American Indian, Eskimo
[ ] White (non-Hispanic), Anglo, Caucasian, European
[ ] Asian / Pacific Islander:
[ ] Hispanic or Latino:
[ ] Other; Please specify _____

9. Are you currently living in..

[ ] Parents' house/apartment
[ ] Campus housing/dorms
[ ] Your own house/apartment
[ ] Other; Please specify _____

10. Who lives with you?

[ ] Parent(s)
[ ] Relatives
[ ] Friends
[ ] Romantic partner
[ ] Roommates
[ ] Other; Please specify _____

Listed below are some symptoms or problems people sometimes have. Please read each one carefully and circle the option that best describes how much that symptom has bothered or distressed you in *the past week, including today*.

How much that symptom has bothered or distressed you in the *past week, including today*	***Not at all***	***A little***	***Quite a bit***	***Extremely***
1. Suddenly scared for no reason	0	1	2	3
2. Feeling fearful	0	1	2	3
3. Faintness, dizziness, or weakness	0	1	2	3
4. Nervousness or shakiness inside	0	1	2	3
5. Heart pounding or racing	0	1	2	3
6. Trembling	0	1	2	3
7. Feeling tense or keyed up	0	1	2	3
8. Headaches	0	1	2	3
9. Spells of terror or panic	0	1	2	3
10. Feeling restless, can't sit still	0	1	2	3
11. Feeling low in energy, slowed down	0	1	2	3
12. Blaming yourself for things	0	1	2	3
13. Crying easily	0	1	2	3
14. Loss of sexual interest or pleasure	0	1	2	3
15. Poor appetite	0	1	2	3
16. Difficulty falling asleep or staying asleep	0	1	2	3
17. Feeling hopeless about the future	0	1	2	3
18. Feeling blue	0	1	2	3
19. Feeling lonely	0	1	2	3
20. Thoughts of ending your life	0	1	2	3
21. Feeling of being trapped or caught	0	1	2	3
22. Worrying too much about things	0	1	2	3
23. Feeling no interest in things	0	1	2	3
24. Feeling everything is an effort	0	1	2	3
25. Feelings of worthlessness	0	1	2	3

Please indicate how often the following statements apply to you by writing the appropriate number from the scale below on the line beside each item:

	Almost never (0-10%)	**Sometimes (11-35%)**	**About half the time (36-65%)**	**Most of the time (66-90%)**	**Almost always (91-100%)**
1) I am clear about my feelings.	1	2	3	4	5
2) I pay attention to how I feel.	1	2	3	4	5
3) I experience my emotions as overwhelming and out of control.	1	2	3	4	5
4) I have no idea how I am feeling.	1	2	3	4	5
5) I have difficulty making sense out of my feelings.	1	2	3	4	5
6) I am attentive to my feelings.	1	2	3	4	5
7) I know exactly how I am feeling.	1	2	3	4	5
8) I care about what I am feeling.	1	2	3	4	5
9) I am confused about how I feel.	1	2	3	4	5
10) When I'm upset, I acknowledge my emotions.	1	2	3	4	5
11) When I'm upset I become angry with myself for feeling that way.	1	2	3	4	5
12)When I'm upset, I become embarrassed for feeling that way.	1	2	3	4	5
13) When I'm upset, I have difficulty getting work done.	1	2	3	4	5
14) When I'm upset, I become out of control.	1	2	3	4	5
15) When I'm upset, I believe that I will remain that way for a long time.	1	2	3	4	5
16) When I'm upset, I believe that I'll end up feeling very depressed.	1	2	3	4	5
17) When I'm upset, I believe that my feelings are valid and important.	1	2	3	4	5
18) When I'm upset, I have	1	2	3	4	5

difficulty focusing on other things.					
19) When I'm upset, I feel out of control.	1	2	3	4	5
20) When I'm upset, I can still get things done.	1	2	3	4	5
21) When I'm upset, I feel ashamed with myself for feeling that way.	1	2	3	4	5
22) When I'm upset, I know that I can find a way to eventually feel better.	1	2	3	4	5
23) When I'm upset, I feel like I am weak.	1	2	3	4	5
24) When I'm upset, I feel like I can remain in control of my behaviors.	1	2	3	4	5
25) When I'm upset, I feel guilty for feeling that way.	1	2	3	4	5
26) When I'm upset, I have difficulty concentrating.	1	2	3	4	5
27) When I'm upset, I have difficulty controlling my behaviors.	1	2	3	4	5
28) When I'm upset, I believe that there is nothing I can do to make myself feel better.	1	2	3	4	5
29) When I'm upset, I become irritated with myself for feeling that way.	1	2	3	4	5
30) When I'm upset, I start to feel very bad about myself.	1	2	3	4	5
31) When I'm upset, I believe that wallowing in it is all I can do.	1	2	3	4	5
32) When I'm upset, I lose control over my behaviors.	1	2	3	4	5
33) When I'm upset, I have difficulty thinking about anything else.	1	2	3	4	5
34) When I'm upset, I take time to figure out what I'm really feeling.	1	2	3	4	5
35) When I'm upset, it takes me a long time to feel better.	1	2	3	4	5
36) When I'm upset, my emotions feel overwhelming.	1	2	3	4	5

This section is about any prior psychological diagnoses and treatment you may have received.

Has a medical doctor or psychologist *ever diagnosed you* as suffering from any of the following conditions? If yes, did you receive treatment for that diagnosis? (CIRCLE ALL THAT APPLY)

Ever Diagnosed		Ever Received Treatment		Diagnosis
NO	YES	NO	YES	
0	1	0	1	Anxiety disorders (for example, obsessive compulsive disorder, generalized anxiety disorder, panic disorders, phobias, etc.)
0	1	0	1	Depression (for example, major depression, dysthymia, etc.)
0	1	0	1	Posttraumatic Stress Disorder (PTSD)
0	1	0	1	An alcohol or substance abuse problem/disorder
0	1	0	1	An eating disorder (anorexia, bulimia, etc.)
0	1	0	1	Attention Deficit/Hyperactivity Disorder (ADHD) or Attention Deficit Disorder (ADD)
0	1	0	1	Borderline Personality Disorder (BPD)?
0	1	0	1	Other mental health condition? Specify:
0	1	0	1	
0	1	0	1	High blood pressure?
0	1	0	1	Chronic pain?
0	1	0	1	Asthma?
0	1	0	1	A speech disorder?
0	1	0	1	Sexual dysfunction (e.g., pain during intercourse)?
0	1	0	1	A gastro-intestinal condition (e.g., IBS, stomach ulcer)?
0	1	0	1	Other physical health condition? Specify:

These next set of questions ask about your feelings about your friends and about your weight. Please answer the following questions using the following scale:

1----------2----------3----------4----------5----------6

Strongly Disagree **Strongly Agree**

1. I would tell a friend I think she looks nice, even if I think she shouldn't go out of the house dressed like that.	1	2	3	4	5	6
2. I worry that I make others feel bad if I am successful.	1	2	3	4	5	6
3. I would not change the way I do things in order to please someone else.	1	2	3	4	5	6
4. I tell my friends what I honestly think even when it is an unpopular idea.	1	2	3	4	5	6
5. Often I look happy on the outside in order to please others, even if I don't feel happy on the inside.	1	2	3	4	5	6
6. I wish I could say what I feel more often than I do.	1	2	3	4	5	6
7. I feel like it's my fault when I have disagreements with my friends.	1	2	3	4	5	6
8. When my friends ignore my feelings, I think that my feelings weren't very important anyway.	1	2	3	4	5	6
9. I usually tell my friends when they hurt my feelings.	1	2	3	4	5	6
10. The way I can tell that I am at a good weight is when I fit into a small size.	1	2	3	4	5	6
11. I often wish my body were different.	1	2	3	4	5	6
12. I think that a girl has to be thin to feel beautiful.	1	2	3	4	5	6
13. I think a girl has to have a light complexion and delicate features to be thought of as beautiful.	1	2	3	4	5	6
14. I am more concerned about how my body looks than how my body feels.	1	2	3	4	5	6
15. I often feel uncomfortable in my body.	1	2	3	4	5	6
16. There are times when I have really good feelings in my body.	1	2	3	4	5	6
17. The way I decide I am at a good weight is when I feel healthy.	1	2	3	4	5	6

This next section asks questions regarding your current relationships.

Using a 1-5 scale, please indicate how willing you are to discuss each of these specific feelings with a close friend and a romantic partner.

1 Never always **2 Rarely** **3 Sometimes;** **4 Often** **5 Almost**

	To a close friend					To a romantic friend				
1. Times when you felt depressed.	1	2	3	4	5	1	2	3	4	5
2. Times when you felt happy.	1	2	3	4	5	1	2	3	4	5
3. Times when you felt jealous.	1	2	3	4	5	1	2	3	4	5
4. Times when you felt anxious.	1	2	3	4	5	1	2	3	4	5
5. Times when you felt angry.	1	2	3	4	5	1	2	3	4	5
6. Times when you felt calm.	1	2	3	4	5	1	2	3	4	5
7. Times when you felt apathetic.	1	2	3	4	5	1	2	3	4	5
8. Times when you felt afraid.	1	2	3	4	5	1	2	3	4	5
9. Times when you felt discouraged.	1	2	3	4	5	1	2	3	4	5
10. Times when you felt cheerful.	1	2	3	4	5	1	2	3	4	5
11. Times when you felt possessive.	1	2	3	4	5	1	2	3	4	5
12. Times when you felt troubled.	1	2	3	4	5	1	2	3	4	5
13. Times when you felt infuriated.	1	2	3	4	5	1	2	3	4	5
14. Times when you felt quiet.	1	2	3	4	5	1	2	3	4	5
15. Times when you felt indifferent.	1	2	3	4	5	1	2	3	4	5
16. Times when you felt fearful.	1	2	3	4	5	1	2	3	4	5
17. Times when you felt pessimistic.	1	2	3	4	5	1	2	3	4	5
18. Times when you felt joyous.	1	2	3	4	5	1	2	3	4	5
19. Times when you felt envious.	1	2	3	4	5	1	2	3	4	5
20. Times when you felt worried.	1	2	3	4	5	1	2	3	4	5
21. Times when you felt irritated.	1	2	3	4	5	1	2	3	4	5
22. Times when you felt serene.	1	2	3	4	5	1	2	3	4	5

23. Times when you felt numb.	1	2	3	4	5	1	2	3	4	5
24. Times when you felt frightened.	1	2	3	4	5	1	2	3	4	5
25. Times when you felt sad.	1	2	3	4	5	1	2	3	4	5
26. Times when you felt delighted.	1	2	3	4	5	1	2	3	4	5
27. Times when you felt suspicious.	1	2	3	4	5	1	2	3	4	5
28. Times when you felt uneasy.	1	2	3	4	5	1	2	3	4	5
29. Times when you felt hostile.	1	2	3	4	5	1	2	3	4	5
30. Times when you felt tranquil.	1	2	3	4	5	1	2	3	4	5
31. Times when you felt unfeeling.	1	2	3	4	5	1	2	3	4	5
32. Times when you felt scared.	1	2	3	4	5	1	2	3	4	5
33. Times when you felt unhappy.	1	2	3	4	5	1	2	3	4	5
34. Times when you felt pleased.	1	2	3	4	5	1	2	3	4	5
35. Times when you felt resentful.	1	2	3	4	5	1	2	3	4	5
36. Times when you felt flustered.	1	2	3	4	5	1	2	3	4	5
37. Times when you felt enraged.	1	2	3	4	5	1	2	3	4	5
38. Times when you felt relaxed.	1	2	3	4	5	1	2	3	4	5
39. Times when you felt detached.	1	2	3	4	5	1	2	3	4	5
40. Times when you felt alarmed.	1	2	3	4	5	1	2	3	4	5

41. Was your close friend: **[ ] Male** **[ ] Female** **[ ] Other**

42. Was your romantic partner: **[ ] Male** **[ ] Female** **[ ] Other**

43. Are you currently involved in a romantic relationship? **[ ] No [ ] Yes**

If yes, how many months have you been in this relationship? **_____# months**

44. Do you identify as:

[ ] Homosexual [ ] Heterosexual [ ] Bisexual [ ] Undecided [ ] Other

This questionnaire asks about a number of different things that people sometimes do to hurt themselves. Please be sure to read each question carefully and respond honestly. Often, people who do these kinds of things to themselves keep it a secret, for a variety of reasons. However, honest responses to these questions will provide us with greater understanding and knowledge about these behaviors and the best way to help people. Please answer yes to a question only if you did the behavior intentionally, or on purpose, to hurt yourself. Do not respond yes if you did something accidentally (e.g., you tripped and banged you head on accident). Also, please be assured that your responses are completely confidential.

1. Have you ever intentionally (i.e., on purpose) **cut your wrist, arms, or other area(s) of your body** (without intending to kill yourself)? **[ ] Yes [ ] No**

If yes,

How old were you when you **first** did this? _____**Years old**

How many **times** have you done this? _____ **# Days**

When was the last time you did this? _____
(MM/DD/YYYY)

2. Have you ever intentionally (i.e., on purpose) **burned yourself with a cigarette** (without intending to kill yourself)? **[ ] Yes [ ] No**

If yes,

How old were you when you **first** did this? _____**Years old**

How many **times** have you done this? _____ **# Days**

When was the last time you did this? _____
(MM/DD/YYYY)

3. Have you ever intentionally (i.e., on purpose) **burned yourself with a lighter or a match** (without intending to kill yourself)? **[ ] Yes [ ] No**

If yes,

How old were you when you **first** did this? _____**Years old**

How many **times** have you done this? _____ **# Days**

When was the last time you did this? _____
(MM/DD/YYYY)

4. Have you ever intentionally (i.e., on purpose) **carved words into your skin** (without intending to kill yourself)? **[ ] Yes [ ] No**

If yes,

How old were you when you **first** did this? _____**Years old**

How many **times** have you done this? _____ **# Days**

When was the last time you did this? _____

(MM/DD/YYYY)

5. Have you ever intentionally (i.e., on purpose) **carved pictures, designs, or other marks into your skin** (without intending to kill yourself)? **[ ] Yes [ ] No**
If yes,
How old were you when you **first** did this? _____**Years old**

How many **times** have you done this? _____ **# Days**

When was the last time you did this? _____
(MM/DD/YYYY)

6. Have you ever intentionally (i.e., on purpose) **severely scratched yourself, to the extent that scarring or bleeding occurred** (without intending to kill yourself)? **[ ] Yes [ ] No**
If yes,
How old were you when you **first** did this? _____**Years old**

How many **times** have you done this? _____ **# Days**

When was the last time you did this? _____
(MM/DD/YYYY)

7. Have you ever intentionally (i.e., on purpose) **bit yourself, to the extent that you broke the skin** (without intending to kill yourself)? **[ ] Yes [ ] No**
If yes,
How old were you when you **first** did this? _____**Years old**

How many **times** have you done this? _____ **# Days**

When was the last time you did this? _____
(MM/DD/YYYY)

8. Have you ever intentionally (i.e., on purpose) **rubbed sandpaper on your** body (without intending to kill yourself)? **[ ] Yes [ ] No**
If yes,
How old were you when you **first** did this? _____**Years old**

How many **times** have you done this? _____ **# Days**

When was the last time you did this? _____
(MM/DD/YYYY)

9. Have you ever intentionally (i.e., on purpose) **dripped acid onto your skin** (without intending to kill yourself)? **[ ] Yes [ ] No**
If yes,
How old were you when you **first** did this? _____**Years old**

How many **times** have you done this? _____ **# Days**

When was the last time you did this? _____
(MM/DD/YYYY)

10. Have you ever intentionally (i.e., on purpose) **used bleach, comet, or oven cleaner to scrub your skin** (without intending to kill yourself)? **[ ] Yes [ ] No**
If yes,
How old were you when you **first** did this? _____**Years old**

How many **times** have you done this? _____ #
Days
When was the last time you did this? _____
(MM/DD/YYYY)

11. Have you ever intentionally (i.e., on purpose) **stuck sharp objects such as needles, pins, staples, etc. into your skin, not including tattoos, ear piercing, needles used for drug use, or body piercing** (without intending to kill yourself)? **[ ] Yes [ ] No**
If yes,
How old were you when you **first** did this? _____**Years old**

How many **times** have you done this? _____ **# Days**

When was the last time you did this? _____
(MM/DD/YYYY)

12. Have you ever intentionally (i.e., on purpose) **rubbed glass into your skin** (without intending to kill yourself)? **[ ] Yes [ ] No**
If yes,
How old were you when you **first** did this? _____**Years old**

How many **times** have you done this? _____ **# Days**

When was the last time you did this? _____
(MM/DD/YYYY)

13. Have you ever intentionally (i.e., on purpose) **broken your own bones** (without intending to kill yourself)? **[ ] Yes [ ] No**
If yes,
How old were you when you **first** did this? _____**Years old**

How many **times** have you done this? _____ **# Days**

When was the last time you did this? _____
(MM/DD/YYYY)

14. Have you ever intentionally (i.e., on purpose) **banged your head against something**, **to the extent that you caused a bruise** (without intending to kill yourself)?
[ ] Yes [ ] No

If yes,
How old were you when you **first** did this? _____**Years old**

How many **times** have you done this? _____ **# Days**

When was the last time you did this? _____
(MM/DD/YYYY)

15. Have you ever intentionally (i.e., on purpose) **punched yourself, to the extent that you caused a bruise** (without intending to kill yourself)? **[ ] Yes [ ] No**

If yes,
How old were you when you **first** did this? _____**Years old**

How many **times** have you done this? _____ **# Days**

When was the last time you did this? _____
(MM/DD/YYYY)

16. Have you ever intentionally (i.e., on purpose) **prevented wounds from healing** (without intending to kill yourself)? **[ ] Yes [ ] No**
If yes,
How old were you when you **first** did this? _____**Years old**

How many **times** have you done this? _____ **# Days**

When was the last time you did this? _____
(MM/DD/YYYY)

17. Have you ever done anything else to hurt yourself that was not asked about in this questionnaire? **[ ] Yes [ ] No**

If yes, what did you do to hurt yourself?
_____

If yes,
How old were you when you **first** did this? _____**Years old**

How many **times** have you done this? _____ **# Days**

When was the last time you did this? _____
(MM/DD/YYYY)

18. If you answered yes to any of the above questions, did you usually engage in the behaviors when alone or with others?

[ ] Alone [ ] With others

This section asks about your beliefs about expressing how you feel to others.

	Disagree Very Much 1	Somewhat Disagree 2	Neither Agree nor Disagree 3	Somewhat Agree 4	Agree Very Much 5
1. I think you should always keep your feelings under control.	1	2	3	4	5
2. I think you ought not to burden other people with your problems.	1	2	3	4	5
3. I think getting emotional is a sign of weakness.	1	2	3	4	5
4. I think other people don't understand your feelings.	1	2	3	4	5
5. When I'm upset, bottle up my feelings.	1	2	3	4	5
6. You should always keep your feelings to yourself.	1	2	3	4	5
7. Other people will reject you if you upset them.	1	2	3	4	5
8. My bad feelings will harm other people if I express them.	1	2	3	4	5
9. If I express my feelings I'm vulnerable to attack.	1	2	3	4	5
10. You should always hide your feelings.	1	2	3	4	5
11. When I'm upset, I usually try to hide how I feel.	1	2	3	4	5
12. I seldom show who I feel about things.	1	2	3	4	5
13. Turning to someone else for advice or help is an admission of weakness.	1	2	3	4	5
14. It is shameful for a person to display his or	1	2	3	4	5

her weakness.					
15. I should always have complete control over my feelings.	1	2	3	4	5
16. If other people know what you are really like, they will think less of you.	1	2	3	4	5
17. When I get upset, I usually show how I feel.	1	2	3	4	5
18. People will reject you if they know your weaknesses.	1	2	3	4	5
19. If a person asks for help, it is a sign of weakness.	1	2	3	4	5
20. I don't feel comfortable showing my emotions.	1	2	3	4	5

Please indicate how typical each statement is for your, giving it a rating of 1 to 5, with 1 being not typical at all, 3 being somewhat typical, and 5 being very typical.
When you were SAD as a child, what would your MOTHER or guardian do?

	Not at all typical 1	2	Somewhat typical 3	4	Very typical 5
1. Comforted you.	1	2	3	4	5
2. Called you a crybaby.	1	2	3	4	5
3. Told you to cheer up.	1	2	3	4	5
4. Ignored you.	1	2	3	4	5
5. Got all upset.	1	2	3	4	5

When you were ANGRY as a child, what would your MOTHER or guardian do?

	Not at all typical 1	2	Somewhat typical 3	4	Very typical 5
1. Helped you deal with the problem.	1	2	3	4	5
2. Tell you that you were	1	2	3	4	5

bad.					
3. Tell you things weren't so bad.	1	2	3	4	5
4. Usually wasn't around.	1	2	3	4	5
5. Got angry with you.	1	2	3	4	5

When you were AFRAID or NERVOUS as a child, what would your MOTHER or guardian do?

	Not at all typical 1	2	Somewhat typical 3	4	Very typical 5
1. Held you.	1	2	3	4	5
2. Punished you.	1	2	3	4	5
3. Told you not to worry.	1	2	3	4	5
4. Didn't notice.	1	2	3	4	5
5. Got anxious herself/himself.	1	2	3	4	5

Thank you for your time in participating in this study! Findings from this study can help understand and prevent problems experienced among college women. Your time and help you provided is appreciated.
If for any reason you have experienced distressed as a result of participating in this, we encourage you to contact the university's counseling center. To make an appointment, please call 704-687-2105 or visit this link:
http://www.counselingcenter.uncc.edu/location.htm for the center's location on campus. Counseling to students is free.