Predictors of Body Image Dissatisfaction in Postpartum Women

Barbora Dolejšová

University of Colorado Boulder

Department of Psychology and Neuroscience

Honors Thesis

Defended April 6, 2018

Primary Advisor:

Dr. Sona Dimidjian, Department of Psychology and Neuroscience

Additional Defense Committee Members:

Dr. Mark Whisman, Department of Psychology and Neuroscience

Dr. Lorraine Bayard de Volo, Department of Women and Gender Studies

Abstract

Predictors of body image dissatisfaction in postpartum women have been previously understudied. This study examines the relationship between body image dissatisfaction and postpartum depression, negative self-referential emotions, self-compassion, relationship satisfaction, and life satisfaction in 49 postpartum primiparous mothers. Depressive symptoms, shame and guilt, self-compassion, and relationship satisfaction were significantly correlated to body image dissatisfaction, and relationship satisfaction significantly predicted body image dissatisfaction when controlling for the other psychological predictor variables. Further longitudinal research with multiple comparison groups is needed to determine direction of causation.

Predictors of Body Image Dissatisfaction in Postpartum Women

The peripartum period is a time when many women experience body image dissatisfaction. The cultural appearance ideal in current Western society is largely defined by thinness (Stice, 2002). Although body image dissatisfaction is widespread in our society (Stice, 2002), women may be vulnerable during the peripartum period due to the unique nature of this context. The physical changes associated with pregnancy, such as weight gain, move women away from the societally dictated appearance ideal for women's bodies, increasing their risk of body image dissatisfaction, as predicted by multiple body image theories such as Objectification Theory and the Tripartite Influence Model (Fredrickson & Roberts, 1997; Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999; Watson, Fuller-Tyszkiewicz, Broadbent, & Skouteris, 2017). This study examines the psychological predictors of body image dissatisfaction in postpartum women, including depressive symptoms, shame and guilt, self-compassion, relationship satisfaction, and life satisfaction.

Developing a more nuanced understanding of the psychological factors associated with body dissatisfaction during the perinatal period is important for three reasons. First, it is correlated with numerous negative outcomes for new mothers and their offspring. Among women, body image dissatisfaction has been associated with postpartum depression (Downs, DiNallo, & Kirner, 2008; Duncombe, Wertheim, Skouteris, Paxton, & Kelly, 2008; Silveira, Ertel, Dole, & Chasan-Taber, 2015). Many studies have focused on body image dissatisfaction as a significant risk factor for maternal postpartum depression (Downs et al., 2008; Duncombe et al., 2008; Silveira et al., 2015). This relationship is consistent across the literature, across time periods of pregnancy and postpartum, and "across different aspects of body image". The relationship seems to be directional: body image dissatisfaction is more predictive of subsequent

postpartum depression than depression is of subsequent body dissatisfaction (Silveira et al., 2015). Sweeney and Fingerhut (2013) found that body dissatisfaction specifically in the third trimester of pregnancy may be most predictive of postpartum depression compared to body dissatisfaction during other times of pregnancy (Sweeney & Fingerhut, 2013). Women with greater body image dissatisfaction are more likely to have more symptoms of depression, as well as a greater tendency to diet (Duncombe et al., 2008). Body image dissatisfaction and internalization of the thin appearance ideal are also a risk factor for eating disorders in the general population of women (Stice, 2002).

Second, the mental health correlates of body image dissatisfaction, namely maternal eating disorders and postpartum depression, also can have detrimental effects on children's development. Infants of mothers with eating disorders are smaller, when controlling for length and age, than those of mothers without eating disorders (Stein, Murray, Copper, & Fairburn, 1996). Mothers with eating disorders have also been found to be more intrusive and to "express more negative emotions toward their infants during mealtimes" (Stein, Woolley, Cooper, & Fairburn, 1994). In later ages, disordered eating in mothers is correlated with disordered eating in daughters (Pike & Rodin, 1991). Additionally, a robust longitudinal study found maternal eating disorders to correlate with psychopathology, most strongly with mood disorders, in their offspring in childhood and adolescence (Micali, De Stavola, Ploubidis, Simonoff, & Treasure, 2014). Postpartum depression is associated with potentially harmful affective, behavioral, cognitive, and physiological correlates and consequences among children (Field, 1984; Murray, Cooper, & Stein, 1991; Ohoka et al., 2014). Mothers with depression are "less affectionate and more anxious", and their children tend to have less secure attachment than those of healthy controls (Righetti-Veltema, Bousquet, & Manzano, 2003).

Third, recognition of and response to eating disorders among obstetricians is limited. A survey conducted by Leddy, Jones, Morgan, and Schulkin (2009) of 968 obstetricians across the United States found that while most surveyed (90.8%) understood and agreed that eating disorders can be harmful to the physical and mental health and development of mothers and infants, only about half (54%) considered it within their responsibility to screen for and treat these disorders, and most perceived their training in eating disorder assessment (88.5%) and treatment (96.2%) as inadequate. Understanding the problem of maternal body dissatisfaction is a necessary stepping-stone to developing effective assessment and intervention strategies that might prevent the negative outcomes associated with body dissatisfaction.

The number of studies previously examining multiple correlates of body image dissatisfaction in postpartum women is limited. Gjerdingen et al. (2009) examined physical and demographic correlates of body image dissatisfaction among 506 mothers at nine months postpartum. Significant predictors of body image dissatisfaction included marital status (being single predicted greater body dissatisfaction), race (not being African American predicted greater body dissatisfaction), number of children (fewer children predicted greater body dissatisfaction), bottle-feeding as opposed to breastfeeding, eating disturbance, and worse mental health. This study is informative in terms of demographic and physical correlates; however, the measures of mental health are quite broad, and the question remains which specific aspects of mental health are most salient to body image dissatisfaction during the perinatal period. Rallis, Skouteris, Wertheim and Paxton (2007) found that body image dissatisfaction was associated with the psychological variables of depressive symptoms, dieting behaviors, and physical appearance comparison among 79 Australian women recruited from a prenatal gymnastics class The association of depressive symptoms and physical appearance comparison with body image

dissatisfaction was also reported by Skouteris et al. (2005) in a longitudinal study of 128 healthy pregnant women, along with social pressures, feeling fat, and salience of weight. Thus, while it is clear that mental health and depressive symptoms are important correlates of body image, it remains unclear which aspects of these constructs are salient to predicting specifically peripartum body image dissatisfaction. Consistent associations have previously been found between body image dissatisfaction and several key psychological variables in women in the general population, including negative self-referential emotions, self-compassion, marital satisfaction, and life satisfaction.

Negative self-referential emotions include the emotions of shame and guilt. Although often conflated, empirical studies and contemporary emotion theory support guilt and shame as two separate emotions with separate physiological responses. Guilt involves feeling bad about actions one has taken, whereas shame involves feeling bad about who one intrinsically is as a person (Rizvi, 2010). Negative self-referential emotions (both guilt and shame) have previously been found to correlate with negative body image (Ferreira, Pinto-Gouveia, & Duarte, 2013; Troop, Allan, Serpell, & Treasure, 2008). Shame is also related to higher levels of eating disorder symptoms, even after controlling for other variables such as depressive symptoms (Ferreira, Matos, Duarte, & Pinto-Gouveia, 2014; Troop et al., 2008). In comparison with mothers with better body image, mothers with poorer body image also tend to perceive the world as more hostile and critical of mothers, and are more focused on criticizing themselves rather than reflecting on the reasons behind the changes in their body's shape (Patel, Lee, Wheatcroft, Barnes, & Stein, 2005). While negative self-referential emotions are known to correlate with negative body image in the general population of women, and constructs related to these emotions, such as self-criticism, have been related to negative body image for new mothers,

shame and guilt themselves have been understudied in relationship to postpartum body image dissatisfaction.

The construct of self-compassion, as defined by Neff (2003), has three facets: kindness rather than self-judgment in the face of mistakes or failure; a sense of connected universality rather than isolation of one's experiences; and mindful awareness of rather than over-identification with painful thoughts and feelings. Wasylkiw, MacKinnon, and MacLellan (2012) administered self-report surveys to undergraduate women measuring levels of body image dissatisfaction, self-esteem, and self-compassion. Higher levels of self-compassion were correlated to lower levels of body image dissatisfaction, even when accounting for variance in self-esteem. Self-compassion also has been found to mediate the relationship between negative self-referential emotions and body image in populations of women with and without eating disorders (Ferreira et al., 2014, 2013). Some eating disorder treatments include a focus on self-compassion specifically to address shame as an underlying cause of body image dissatisfaction and eating disorder symptoms (Gilbert, 2010; Goss & Allan, 2010). During the peripartum period specifically, self-compassion has been found to have an inverse relationship to depression and anxiety (Felder, Lemon, Shea, Kripke, & Dimidjian, 2016). However, the relationship between self-compassion and body image in the postpartum period specifically have been understudied.

Numerous studies have found that body dissatisfaction is correlated with decreased relational and sexual satisfaction among women in the general population (Milhausen et al., 2015; Paap & Gardner, 2011; Pujols et al., 2010). Meltzer and McNulty (2010) measured marital and sexual satisfaction of 53 heterosexual couples, as well as wives' self-perceived attractiveness. Higher sexual frequency and satisfaction mediated the positive association

between self-perceived attractiveness and marital satisfaction. Nineteen percent of variance in wives' marital satisfaction was accounted for by their self-perceived attractiveness as compared to six percent of husbands' marital satisfaction. Mickelson and Joseph (2012) studied body, marital and sexual satisfaction specifically in new parents. Overall, new mothers reported significantly lower body image satisfaction scores than new fathers, and body dissatisfaction was found to correlate with intimacy dissatisfaction, with perceived partner rejection mediating this relationship. Still the relationship between body and relationship satisfaction has been understudied in new mothers, and the relative importance of relationship satisfaction compared to other psychological variables such as negative self-referential emotions and self-compassion is unknown.

Satisfaction with life is negatively associated with body dissatisfaction in general populations (Frederick, Sandhu, Morse, & Swami, 2016; Muñoz & Ferguson, 2012). A cross-sectional study of college-aged women found that self-judgment mediated the relationship between body dissatisfaction and life satisfaction; namely, the association between body image and life satisfaction is stronger with women who have more self-judgment (Ferreira, Fortunato, Marta-Simões, & Trindade, 2016). Self-compassion may also mediate the relationship between body image and satisfaction with life (Duarte, Ferreira, Trindade, & Pinto-Gouveia, 2015). However, the relationship between life satisfaction and body image dissatisfaction has not been examined in the postpartum period.

In summary, the constructs of negative self-referential emotions, self-compassion, and life satisfaction have been found to be related to body image in the general population but have not been studied particularly with regard to body image in postpartum women. Furthermore, while these psychological variables described above tend to correlate with one another, the

relative strengths of association between body image dissatisfaction and depressive symptoms, shame and guilt, self-compassion, relationship satisfaction and life satisfaction are not known.

This study examined in a sample of postpartum women the association between body image dissatisfaction and psychological processes that have been previously found to be related to body image in general populations. We conducted correlation and multiple regression analyses to explore the relationships between body image dissatisfaction and these variables. We hypothesized that body image dissatisfaction would be (1) positively correlated with negative self-referential emotions, (2) positively correlated with depressive symptoms, (3) negatively correlated with self-compassion, (4) negatively correlated with marital satisfaction, and (5) negatively correlated with life satisfaction. This study represents the first step in a program of research to better identify inform interventions for body image dissatisfaction in postpartum women.

Methods

Design

Data were collected as part of a larger study that sought to better understand maternal help-seeking in the peripartum period through recording audio clips of new mothers during daily life. For this study, self-report questionnaires administered at a single time point during the postpartum period were used. The outcome variable was participants' score on the Body Shape Questionnaire. Potential correlates included self-report scales measuring guilt and shame, self-compassion, depression, marital satisfaction, and life satisfaction.

Participants

Participants were 49 primiparous mothers who had given birth within the past six months, fluent in English and primarily spoke English at home. Baseline demographic data for

participants are shown in Table 1. The only exclusion criterion was inability to complete the study due to cognitive or other related impairment, but everyone who showed interest in the study was included.

Participants were recruited during late pregnancy or postpartum through various media: flyers in local medical offices, birthing centers, and stores; advertisements in parent magazines; electronic posts on sites such as Craigslist and online mom support groups; the university bulletin system; and contact with participants in previous studies who requested to be informed of subsequent opportunities. Participants were paid $30 for completion of the study through Amazon, Target, or King Soopers gift cards.

Measures

*Body Image***.** Body image dissatisfaction was measured by the well-validated eight-question Body Shape Questionnaire (Evans & Dolan, 1993). The Body Shape Questionnaire asks women to rate how often they have experienced various aspects of body image dissatisfaction over the past four weeks, such as feeling fat while naked in the shower or avoiding social events due to body shape dissatisfaction. On each of the eight questions (Cronbach's $\alpha = 0.89$), a score of 1 indicates "never over the past four weeks" and a score of 6 indicates "always over the past four weeks". Thus, the minimum score is an 8, and a maximum score is a 48. Low scores indicate relative body satisfaction, and high scores indicate body dissatisfaction.

*Shame and Guilt***.** Shame and guilt were measured by adapted versions of the Guilt and Shame Inventories (Jones, Schratter, & Kugler, 2000; Rizvi, 2010). The Shame and Guilt Inventories were identical except for the words "shame" and "guilt." Participants rated how much shame or guilt they felt as a result of 50 events they may have experienced such as being

criticized in front of others, committing a crime, hurting someone physically or emotionally, etc., on a scale from 0 ("No Shame") to 4 ("Extreme Shame"). If a certain event did not apply to participants, they had the option to select "Didn't Happen/Does Not Apply to Me" and that question was excluded for them. Participants also had the opportunity to provide up to 5 self-described situations and a shame or guilt rating for each. Thus, since each participant answered a different number of questions, guilt and shame scores are reported as the mean of their responses to the questions answered; the maximum possible score was a 4, indicating the most shame or guilt, and the minimum possible score was a 0, indicating the least guilt or shame.

Depression. The Edinburgh Postnatal Depression Scale (Cox, Holden, & Sagovsky, 1987) was used to assess participants' depressive symptoms. Participants were asked to rate the frequency of depression-related experiences over the past week, with higher scores indicated greater depressive symptom severity. Ten questions were scored on a range of 0 – 3, with a maximum possible score of 30. Cronbach's alpha was 0.79 (with positive questions reversed).

Self-Compassion. The Self-Compassion Scale (Neff, 2003) includes 26 statements (α = 0.95) that are rated on a scale from 1 ("Almost Never") to 5 ("Almost Always"). Examples of statements are "When things are going badly for me, I see the difficulties as part of life that everyone goes through" and "I try to be loving towards myself when I'm feeling emotional pain." Statements assessed six categories: self-kindness, self-judgment, common humanity, isolation, mindfulness, and over-identification with painful emotions. Answers to self-judgment, isolation, and over-identification questions were reversed to provide three main scores: self-kindness vs. self-judgment, common humanity vs. isolation, and mindfulness vs. over-identification. These were in turn combined to provide an overall self-compassion score. The maximum possible score was 130, indicating a high degree of self-compassion, and the

minimum was 26, indicating a low degree of self-compassion. Cronbach's alpha was 0.95 with the reversed scores.

Marital satisfaction. Marital satisfaction was assessed using the Dyadic Adjustment Scale (Spanier, 1976). Participants rate their relationship on 32 questions ($\alpha = 0.89$) assessing four main categories of relationship functioning: agreement on major life categories such as finances, religious matters or household tasks; cohesion and similarity in activities; relationship satisfaction; and the expression of that satisfaction. The maximum score possible is 151, indicating a high level of relationship satisfaction; the minimum score possible is 0.

Satisfaction with Life Scale. The Satisfaction with Life Scale was developed by Diener, Emmons, Larsen, and Griffin in 1985, and has been well validated as an operationalized measurement of life satisfaction (Pavot & Diener, 2008). Participants were asked to rate five statements ($\alpha = .90$) about life satisfaction such as "In most ways, my life is close to ideal" or "If I could live my life over, I would change almost nothing" on a Likert scale from 1 ("Strongly Disagree") to 7 ("Strongly Agree"). The maximum score possible, indicating very high life satisfaction, is 35; the minimum score is 5, indicating very low life satisfaction.

Procedures

After the initial recruitment, screening and consent process was completed, participants completed the baseline questionnaires via the program Qualtrics. The original study also conducted an iEar monitoring period, where women were given an iEar device and one-minute snippets of their conversations were recorded at random intervals over the course of three days; however, these data are not included in the current study.

Results

Descriptive statistics (mean, standard deviation, and range) of body dissatisfaction and potential correlates are shown in Table 2. Pearson correlations between pairs of variables are presented in Table 3. Body image dissatisfaction was found to be significantly positively associated with shame ($r = .316$, $p < 0.05$), guilt ($r = .309$, $p < 0.05$), and depressive symptoms ($r = .316$, $p < 0.05$), and negatively associated with self-compassion ($r = -.401$, $p < 0.01$) and marital satisfaction ($r = -.484$, $p < 0.0001$). Life satisfaction did not significantly correlate with body image dissatisfaction (and was not included in the multiple regression analysis). The relationship between body image dissatisfaction and life satisfaction was also examined without the outlying data point (the participant who had a SWLS score of 10), but, as shown in Figure 7, was not a significant correlation. The multiple regression model with all five predictors produced Adjusted $R^2 = .19$, $F(5, 38) = 3.03$, $p < 0.05$. As can be seen in Table 4, marital satisfaction was significantly associated with body image dissatisfaction when controlling for shame, guilt, self-compassion, and depressive symptoms. Shame, guilt, self-compassion, and depressive symptoms did not contribute significantly to the multiple regression model.

Discussion

The objective of this study was to examine potential correlates of body image dissatisfaction in postpartum women. Several significant correlates were evident from the bivariate correlations with body image positively correlated with depressive symptoms, shame, and guilt, and negatively correlated with self-compassion and relationship satisfaction; however, only the association between relationship satisfaction and body image was significant in the multiple regression analysis.

Negative self-referential emotions, both shame and guilt, were found to correlate positively with body image dissatisfaction. This finding supports Hypothesis (1) and aligns with what previous research has found in non-peripartum populations (Ferreira et al., 2014, 2013; Troop et al., 2008). The positive association between negative self-referential emotions and body image dissatisfaction suggests that feeling negatively about one's body and feeling negatively about oneself in general are closely associated. Depressive symptoms were also positively associated with body image dissatisfaction in this sample, supporting Hypothesis (2) and congruent with robust previous research findings in the strong association between (Downs et al., 2008; Duncombe et al., 2008; Silveira et al., 2015). Self-compassion was found to be negatively associated with body image dissatisfaction. This finding supports Hypothesis (3) and aligns with previous research on the topic of self-compassion and body image (Wasylkiw et al., 2012). Furthermore, self-compassion was strongly associated with lower shame, guilt, and depressive symptoms and increased marital satisfaction. This supports previous findings of self-compassion as a protective factor (Duarte et al., 2015; Ferreira et al., 2014, 2013).

Marital satisfaction was negatively associated with body image dissatisfaction in this sample, supporting Hypothesis (4) and aligning with previous research on body image and marital and sexual satisfaction in non-peripartum populations (Milhausen et al., 2015; Paap & Gardner, 2011; Pujols et al., 2010). Linear regression analysis further showed that marital satisfaction was a significant predictor for body image dissatisfaction, when including the other variables of shame, guilt, self-compassion, and depression. The other variables did not have significant coefficients in the linear regression analysis model. For example, when guilt, self-compassion, depression, and marital satisfaction are held constant, shame does not contribute unique predictive value. This does not invalidate the significant Pearson correlations of these

variables with body image; rather, it is likely a reflection that shame, guilt, self-compassion, and depressive symptoms are all closely related psychological concepts, whereas marital satisfaction is more its own construct. Another potential interpretation is that shame, guilt, self-compassion, and depressive symptoms all contribute to body image dissatisfaction, which then in turn impacts relationship satisfaction.

Satisfaction with life was not found to correlate significantly with body image dissatisfaction, so Hypothesis (5) was not supported, even with examined without the outlier. This finding is different from previous studies on body image and life satisfaction in non-peripartum populations (Frederick et al., 2016; Muñoz & Ferguson, 2012). This difference suggests that body image is less salient to life satisfaction for postpartum women as compared to other populations; further research should examine the salience of various factors in predicting life satisfaction.

This study had several key limitations. First, the measurement of body image used in this study was limited in terms of length and diversity of body image constructs assessed. The eight-question Body Shape Questionnaire has been well validated for the general population, but not specifically for peripartum women. Future research should be conducted with measurement tools that have been validated specifically for peripartum women and that measure with greater nuance the aspects of body image that are most salient to this population, such as dissatisfaction with physical strength and emphasis on specific features, particularly the stomach (Watson et al., 2017). Additionally, no data was collected on disordered eating, so it remains unknown to what extent body image dissatisfaction was correlated with disordered eating in this sample.

Second, this was an exploratory study; therefore, no comparison groups were used. Random assignment may be challenging with regard to subjective variables, such as relationship

satisfaction or self-compassion. However, future studies may include comparison groups that have received interventions that, for example, teach participants to increase their self-compassion, and examine the effects of such interventions on body image dissatisfaction in order to gain more information about causation. Additionally, the variables of shame and guilt were highly correlated with one another, which raises the concern of multicollinearity.

The cross-sectional and correlational nature of this study was another significant limitation. It is therefore impossible to establish any causal links between variables, as no information was collected on temporal precedence. Conducting longitudinal studies is particularly important given that the existing longitudinal data yield mixed findings as to the course of body image dissatisfaction throughout pregnancy and the postpartum period. Specifically, some studies have found body image found to be fairly stable throughout pregnancy (Clark, Skouteris, Wertheim, Paxton, & Milgrom, 2009; Duncombe et al., 2008). If a woman's body image started out negative to begin with when she got pregnant, then it continues to be negative; if it starts out fairly positive, then it continues to be fairly positive (Duncombe et al., 2008). Skouteris, Carr, Wertheim, Paxton, and Duncombe (2005) found that most healthy women can adapt to the necessary changes to their bodies during pregnancy. Other studies have found body image dissatisfaction to peak during the second and third trimesters of pregnancy, for women with and without eating disorders (Coker & Abraham, 2015; Skouteris et al., 2005). Coker and Abraham (2015) found that women with eating disorders experience about the same amount of body dissatisfaction during pregnancy as before, while women without eating disorders tend to experience more body dissatisfaction during pregnancy. Furthermore, in their study, body image dissatisfaction may remain elevated until six to 12 months postpartum, and returned to pre-pregnancy levels more quickly in those with eating disorders, perhaps because

satisfaction was lower at baseline in this population (Coker & Abraham, 2015). Another study found the experiences of "feeling fat" and the salience of weight and body shape to increase in the postpartum period after a decrease in late pregnancy (Clark et al., 2009). Further longitudinal research would provide clarity not only on the course of body image dissatisfaction throughout the peripartum period but also with regard to direction of causation between body image dissatisfaction and other psychological variables.

In addition to longitudinal prospective designs, future studies also might include randomized controlled trials examining the effect of interventions targeted to improve the variables identified as potential correlates by the current study, such as self-compassion and marital satisfaction, on new mothers' body image dissatisfaction. The role of marital satisfaction and its relationship to body dissatisfaction may be a novel target of clinical intervention with perinatal women. It is possible that women's body image concerns stem in part from concerns about being attractive to their partner. Given the strength of the association between relationship satisfaction and body dissatisfaction, further research might examine the effects of interventions to educate the partners of postpartum women in how best to provide support, as well as interventions for both partners to improve communication and functioning as a partnership regarding the changes of the postpartum period, including changes in women's bodies and body image. However, more research, particularly longitudinal research, needs to be conducted regarding the direction of the relationship between these variables to ascertain which interventions may be the most fruitful in preventing body image dissatisfaction in the population of postpartum women.

Table 1: Sample Participant Demographics.

Participants' age (years) *M* (*SD*)	30.2 years (4.2)
Babies' age (weeks) *M* (*SD*)	11.7 (6.7)
Relationship length (years) *M* (*SD*)	5.52 (2.96)
Education (%)	
High school graduate	2.0% (*n* =1)
Vocational/technical training	2.0% (*n* =1)
Some college/two-year degree	20.4% (*n* =10)
Four-year college graduate	36.7% (*n* =18)
Post-graduate	38.8% (*n* =19)
Race/Ethnicity (%)	
White/non-Latina	87.8% (*n* = 43)
Other/Latina	10.2% (*n* =5)
Other/non-Latina	2.0% (*n =1*)
Marital Status (%)	
Married	81.6% (*n* = 40)
Unmarried partnership	14.3% (*n* =7)
Single	4.1% (*n* =2)
Employment	
Employed for wages	63.3% (*n* =31)
Self-employed	12.2% (*n* =6)
Homemaker	24.5% (*n* =12)
Annual Household Income	
Under $25,000	10.2% (*n* =5)
$25,000 - $49,000	20.4% (*n* =10)
$50,000 - $74,000	22.4% (*n* =11)
$75,000 - $99,000	16.3% (*n* =8)
$100,000 - $149,000	16.3% (*n* =8)
Over $150,000	14.3% (*n* =7)

Table 2: Descriptive Statistics of Predictor and Outcome Variables.

Variable	*M*	*SD*	Range
Body Image (BSQ-8)	17.4	8.3	8 – 40
Shame (SI)	1.46	0.69	0.17 – 3.24
Guilt (GI)	1.18	0.64	0 – 3.32
Depression (EPDS)	5.26	3.80	0 – 16
Self-Compassion (SCS)	86.2	18.5	49 – 129
Marital Satisfaction (DAS)	99.2	7.4	82 – 114
Life Satisfaction (SWLS)	29.5	4.5	10 – 35

Table 3. Pearson Correlations Between Study Variables.

Variable	1	2	3	4	5	6	7
1. Body Image Dissatisfaction (BSQ-8)	—	.316*	.309*	.301*	–.402**	–.484***	–.067
2. Shame (SI)		—	.727**	.285	–.531***	–.266	.018
3. Guilt (GI)			—	.292*	–.425**	–.165	–.180
4. Depressive Symptoms (EPDS)				—	–.582***	–.293	–.280
5. Self-Compassion (SCS)					—	.429**	.500***
6. Marital Satisfaction (DAS)						—	.182
7. Life Satisfaction (SWLS)							—

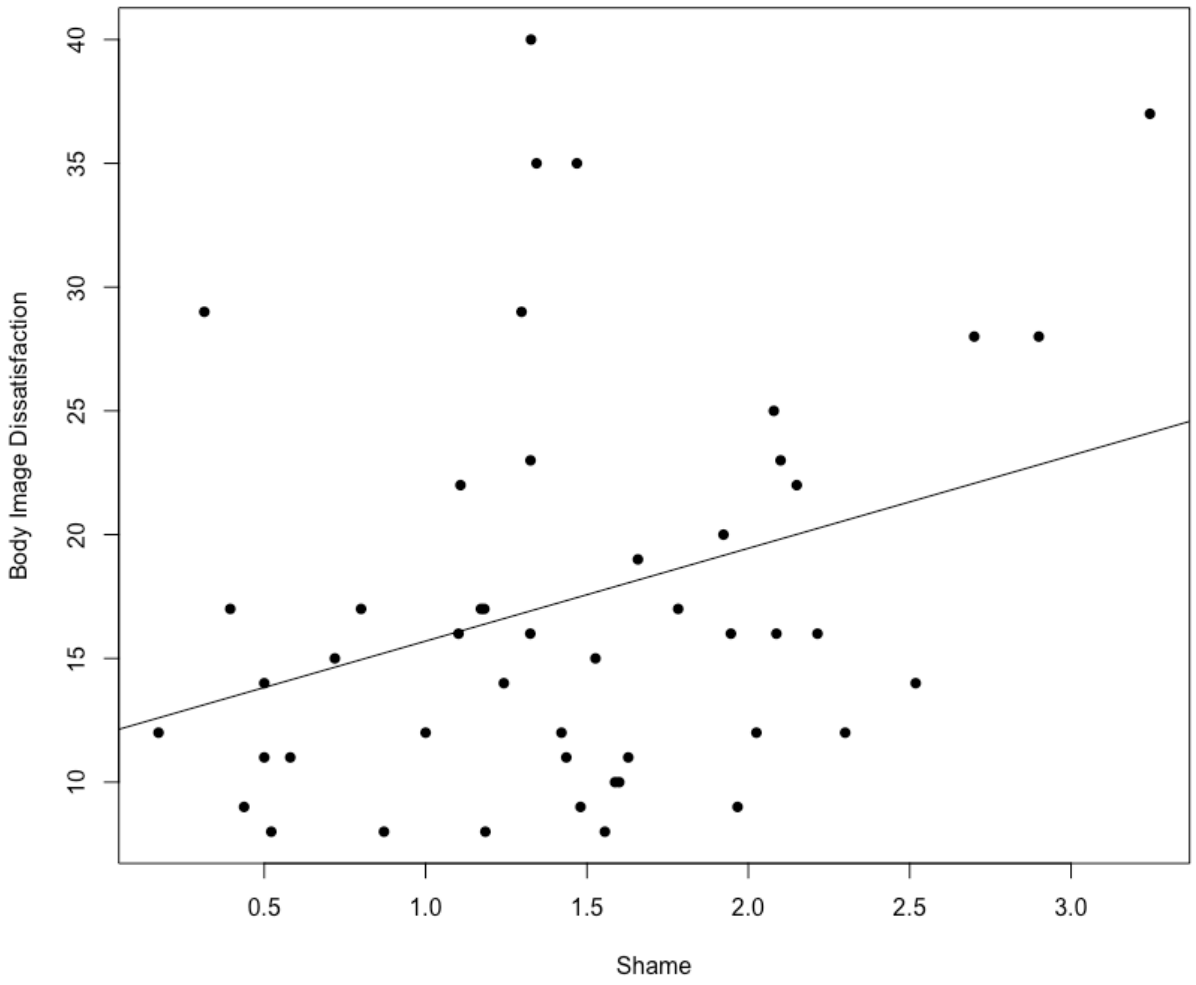
*$p < 0.05$. **$p < 0.01$. ***$p < 0.0001$.

Table 4. Linear Regression Analysis of Body Image Dissatisfaction with Predictor Variables.

Variable	*p*	β	SE β	Sig *t*
Shame (SI)	.895	–.366	2.755	–.133
Guilt (GI)	.456	2.029	2.696	.753
Self-Compassion (SCS)	.486	–.072	.102	–.703
Depression (EPDS)	.716	0.139	.379	.366
Marital Satisfaction (DAS)	.021	–.429*	.178	–2.409

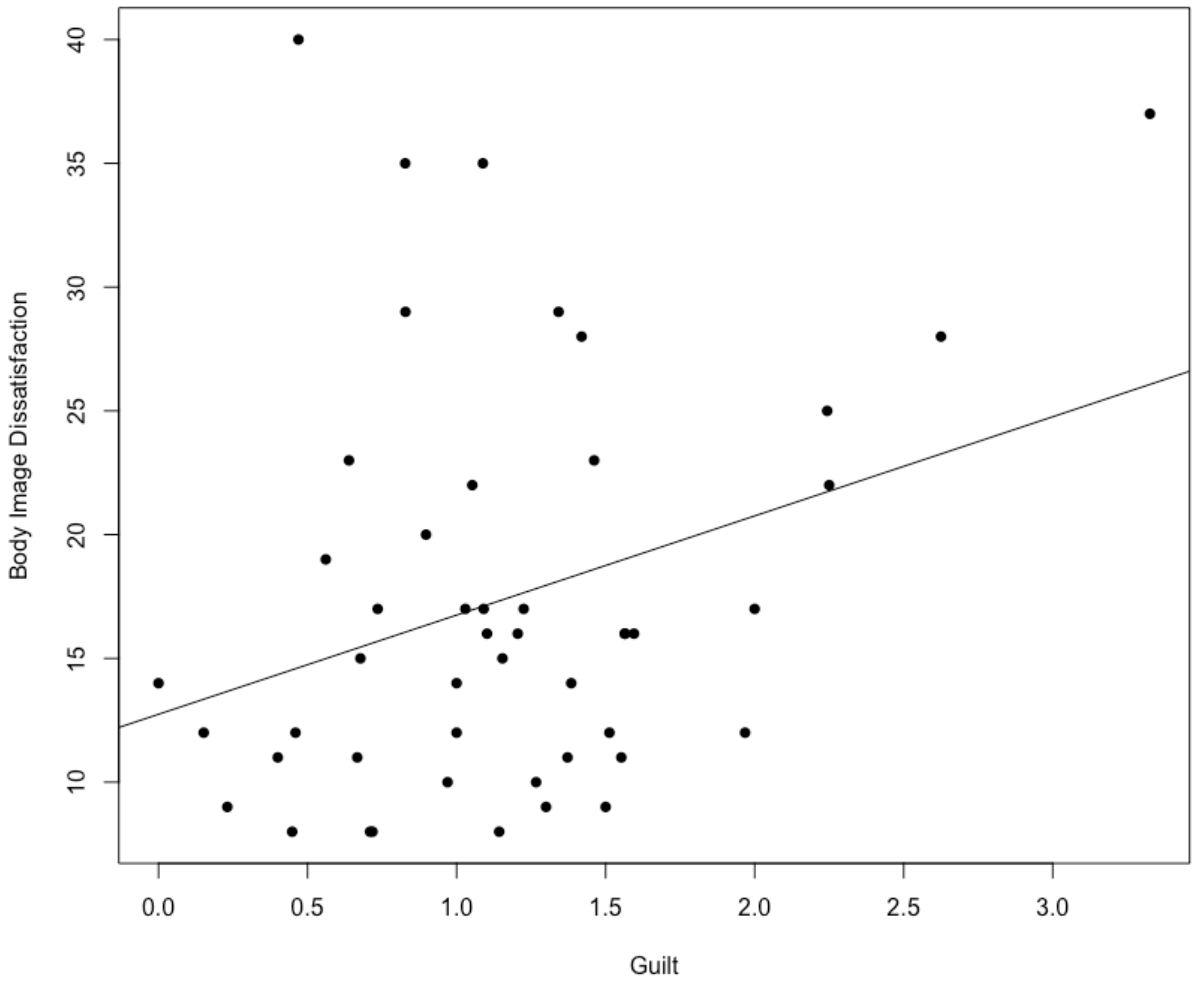
Notes: $N = 49$; *dfs* = 5, 38. *p* for the model = .021. *$p < 0.05$.

Figure 1: Body Image Dissatisfaction vs. Shame.



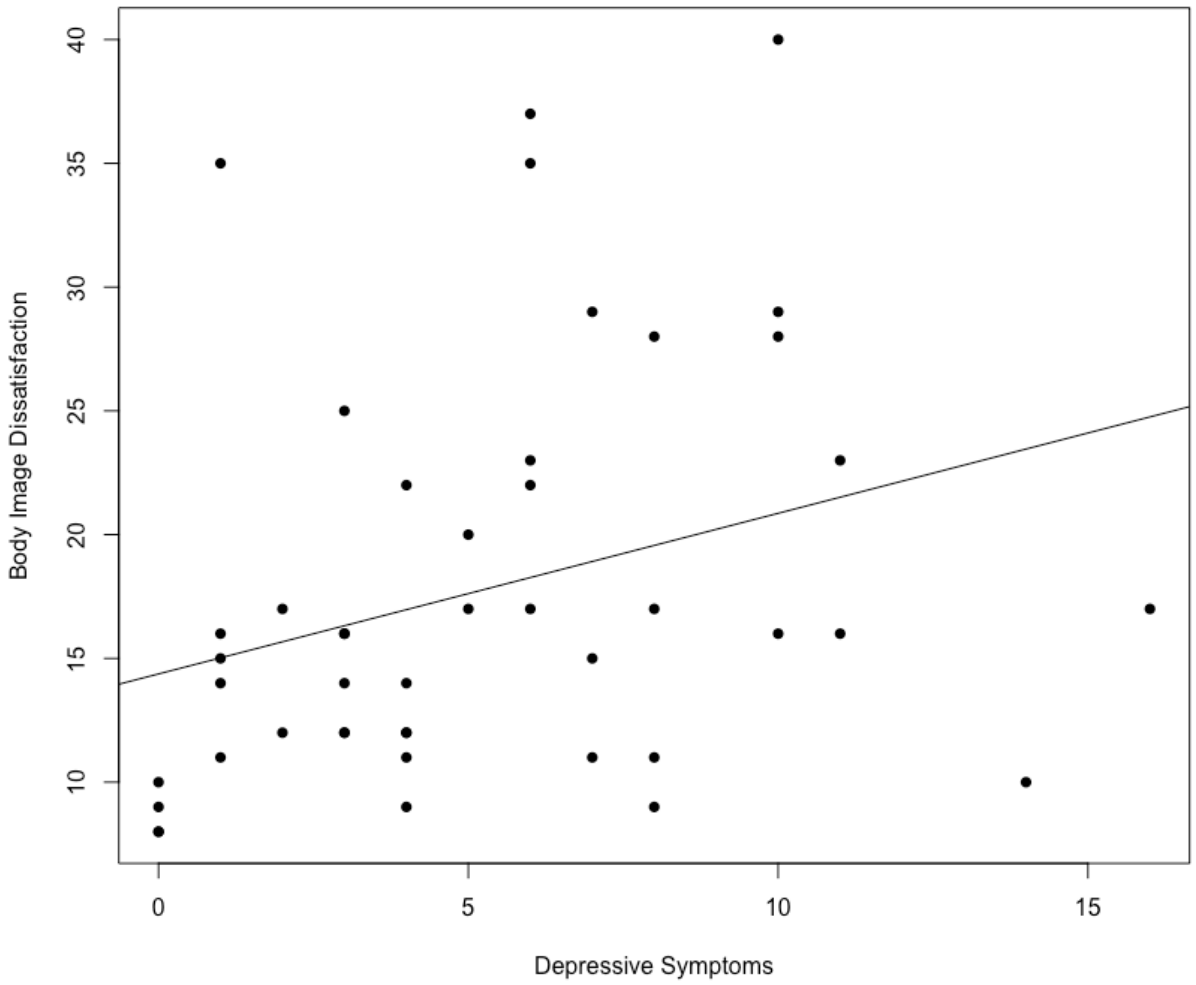
$r = .316, p < 0.05$

Figure 2: Body Image Dissatisfaction vs. Guilt.



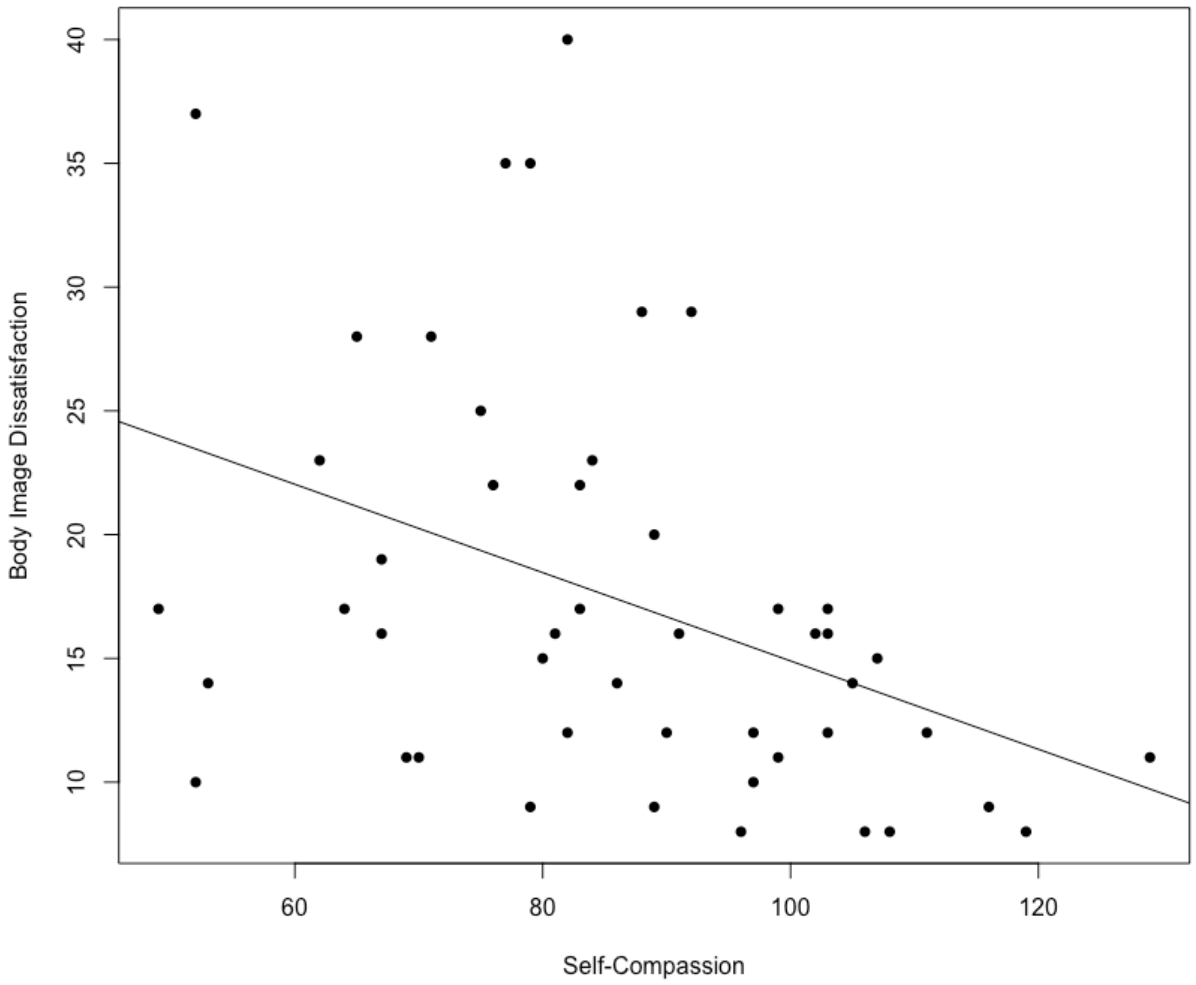
$r = .309$, $p < 0.05$

Figure 3: Body Image Dissatisfaction vs. Depressive Symptoms.



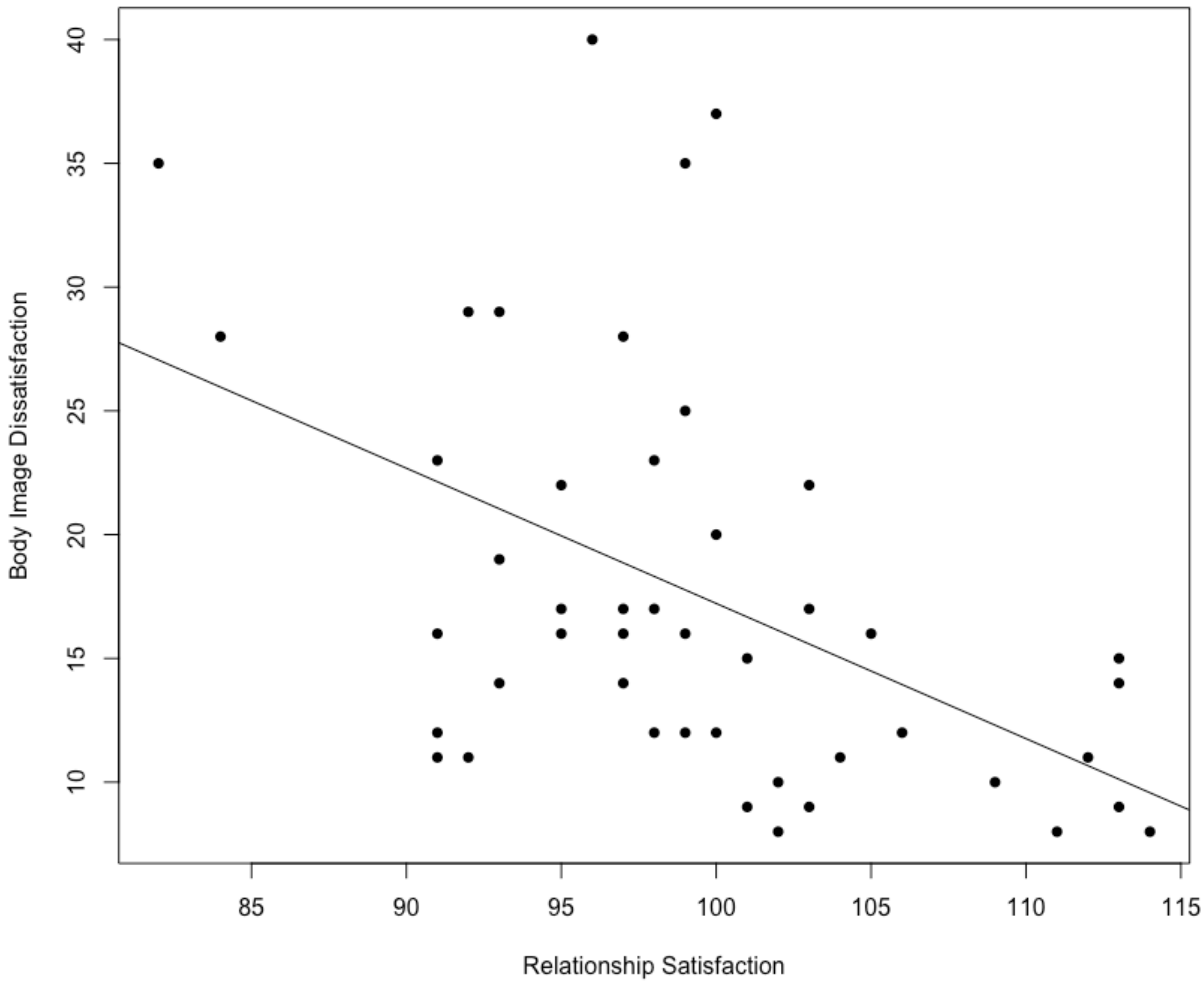
$r = .301$, $p < 0.05$

Figure 4: Body Image Dissatisfaction vs. Self-Compassion.



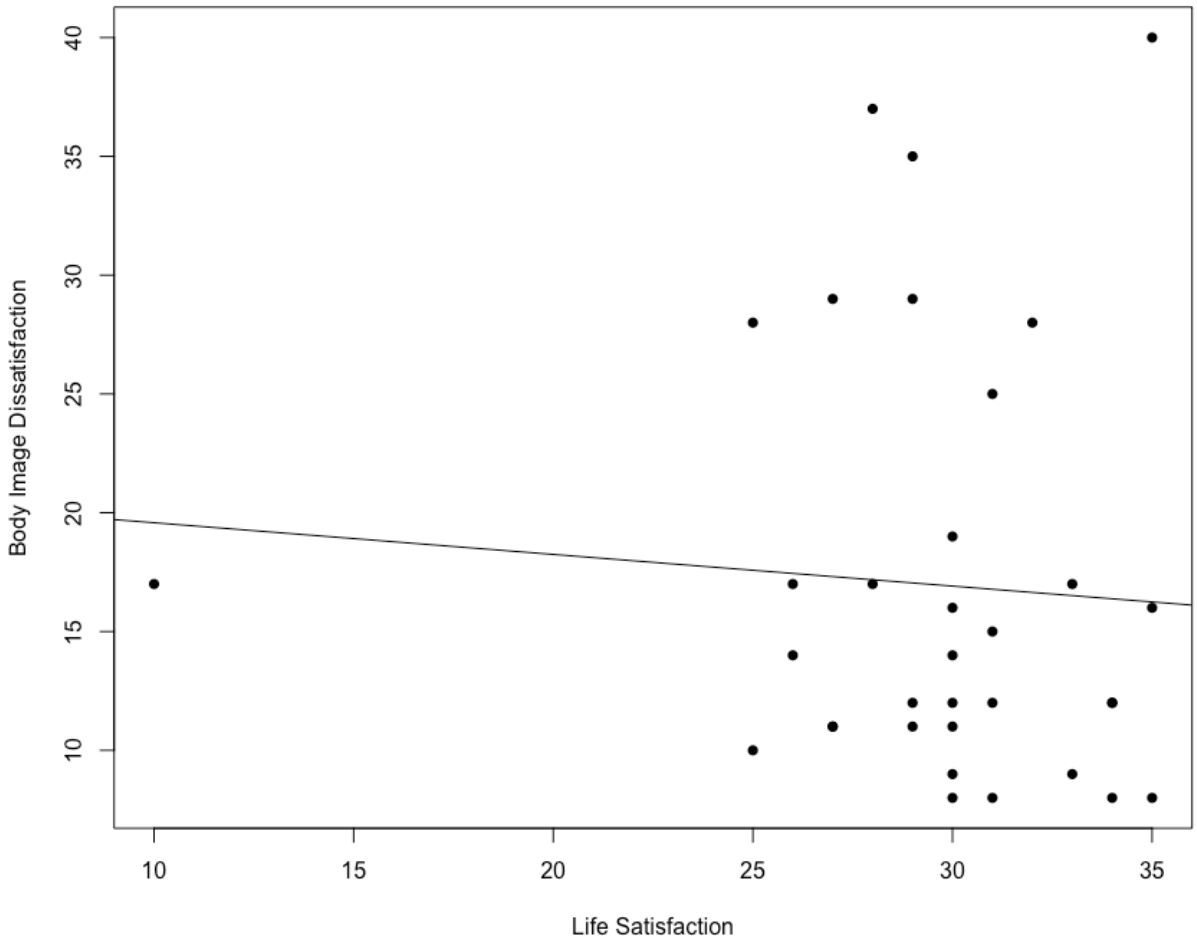
$r = -.401, p < 0.01$

Figure 5: Body Image Dissatisfaction vs. Relationship Satisfaction.



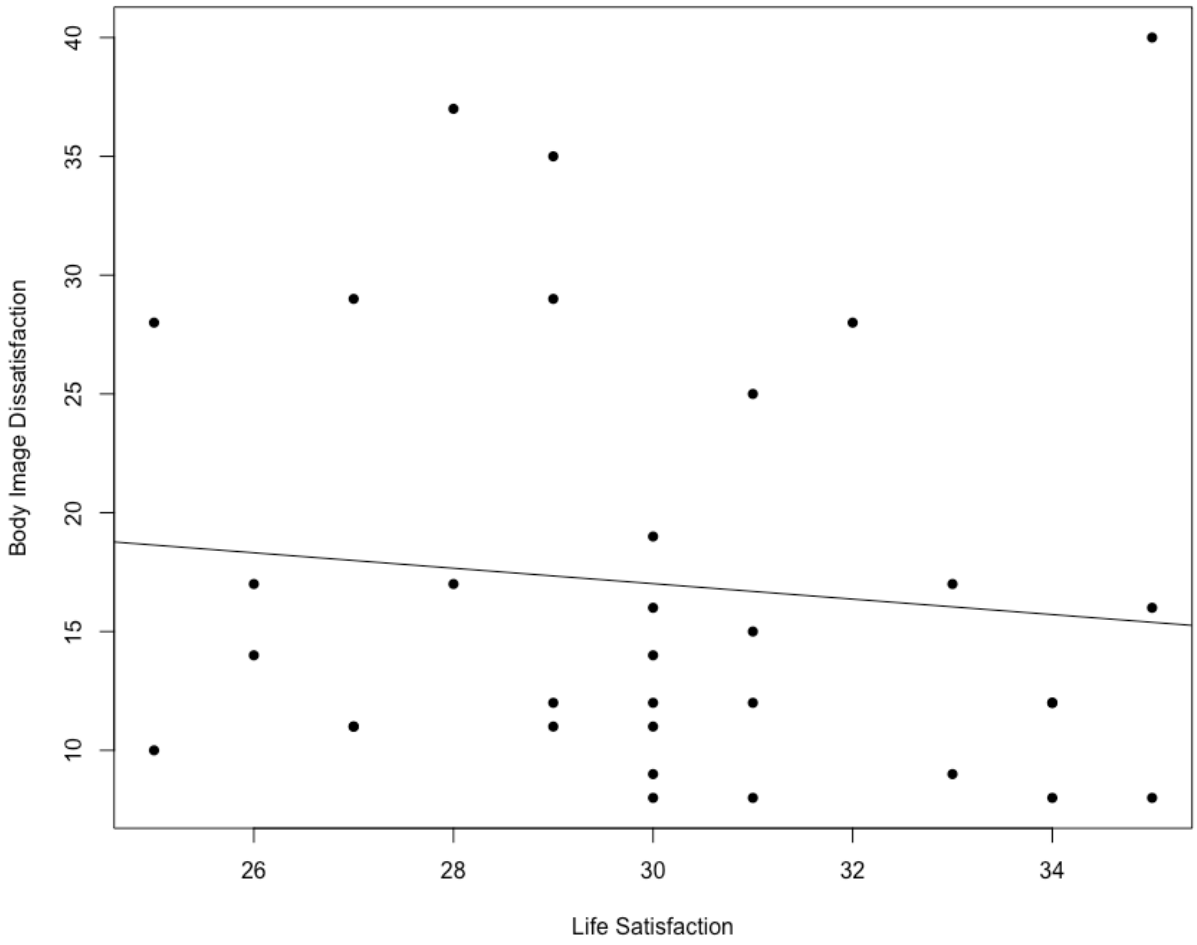
$r = -.484$, $p < 0.0001$

Figure 6: Body Image Dissatisfaction vs. Life Satisfaction.



$r = -.067, p = .707$

Figure 7: Body Image Dissatisfaction vs. Life Satisfaction, outlier removed.



$r = -.104$, $p = .564$

References

Clark, A., Skouteris, H., Wertheim, E. H., Paxton, S. J., & Milgrom, J. (2009). The relationship between depression and body dissatisfaction across pregnancy and the postpartum: A prospective study. *Journal of Health Psychology*, *14*(1), 27–35. http://dx.doi.org.colorado.idm.oclc.org/10.1177/1359105308097940

Coker, E., & Abraham, S. (2015). Body weight dissatisfaction before, during and after pregnancy: A comparison of women with and without eating disorders. *Eating and Weight Disorders*, *20*(1), 71–79. http://dx.doi.org.colorado.idm.oclc.org/10.1007/s40519-014-0133-4

Cox, J. L., Holden, J. M., & Sagovsky, R. (1987). Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. *The British Journal of Psychiatry*, *150*, 782–786. http://dx.doi.org.colorado.idm.oclc.org/10.1192/bjp.150.6.782

Downs, D. S., DiNallo, J. M., & Kirner, T. L. (2008). Determinants of pregnancy and postpartum depression: Prospective influences of depressive symptoms, body image satisfaction, and exercise behavior. *Annals of Behavioral Medicine*, *36*(1), 54–63. http://dx.doi.org.colorado.idm.oclc.org/10.1007/s12160-008-9044-9

Duarte, C., Ferreira, C., Trindade, I. A., & Pinto-Gouveia, J. (2015). Body image and college women's quality of life: The importance of being self-compassionate. *Journal of Health Psychology*, *20*(6), 754–764. http://dx.doi.org.colorado.idm.oclc.org/10.1177/1359105315573438

Duncombe, D., Wertheim, E. H., Skouteris, H., Paxton, S. J., & Kelly, L. (2008). How well do women adapt to changes in their body size and shape across the course of pregnancy?

Journal of Health Psychology, *13*(4), 503–515. http://dx.doi.org.colorado.idm.oclc.org/10.1177/1359105308088521

Evans, C., & Dolan, B. (1993). Body Shape Questionnaire: Derivation of shortened "alternative forms." *International Journal of Eating Disorders*, *13*(3), 315–321. http://dx.doi.org.colorado.idm.oclc.org/10.1002/1098-108X(199304)13:3

Felder, J. N., Lemon, E., Shea, K., Kripke, K., & Dimidjian, S. (2016). Role of self-compassion in psychological well-being among perinatal women. *Archives of Women's Mental Health*, *19*(4), 687–690. http://dx.doi.org.colorado.idm.oclc.org/10.1007/s00737-016-0628-2

Ferreira, C., Fortunato, P., Marta-Simões, J., & Trindade, I. A. (2016). Understanding the role of self-judgment in the association between body dissatisfaction and quality of life on normal-weight and overweight Portuguese women. *The Spanish Journal of Psychology*, *19*. http://dx.doi.org.colorado.idm.oclc.org/10.1017/sjp.2016.15

Ferreira, C., Matos, M., Duarte, C., & Pinto-Gouveia, J. (2014). Shame memories and eating psychopathology: The buffering effect of self-compassion. *European Eating Disorders Review*, *22*(6), 487–494. http://dx.doi.org.colorado.idm.oclc.org/10.1002/erv.2322

Ferreira, C., Pinto-Gouveia, J., & Duarte, C. (2013). Self-compassion in the face of shame and body image dissatisfaction: Implications for eating disorders. *Eating Behaviors*, *14*(2), 207–210. http://dx.doi.org.colorado.idm.oclc.org/10.1016/j.eatbeh.2013.01.005

Field, T. M. (1984). Early interactions between infants and their postpartum depressed mothers. *Infant Behavior & Development*, *7*(4), 517–522. http://dx.doi.org.colorado.idm.oclc.org/10.1016/S0163-6383(84)80010-7

Frederick, D. A., Sandhu, G., Morse, P. J., & Swami, V. (2016). Correlates of appearance and weight satisfaction in a U.S. national sample: Personality, attachment style, television viewing, self-esteem, and life satisfaction. *Body Image*, *17*, 191–203. http://dx.doi.org.colorado.idm.oclc.org/10.1016/j.bodyim.2016.04.001

Fredrickson, B. L., & Roberts, T.-A. (1997). Objectification theory: toward understanding women's lived experiences and mental health risks. *Psychology of Women Quarterly*, *21*(2), 173–206.

Gilbert, P. (2010). *Compassion focused therapy: Distinctive features*. Routledge/Taylor & Francis Group (New York, NY, US). Retrieved from https://search-proquest-com.colorado.idm.oclc.org/psycinfo/docview/742978194/DB9D3BA52E78475CPQ/1

Gjerdingen, D., Fontaine, P., Crow, S., McGovern, P., Center, B., & Miner, M. (2009). Predictors of mothers' postpartum body dissatisfaction. *Women & Health*, *49*(6–7), 491–504. http://dx.doi.org.colorado.idm.oclc.org/10.1080/03630240903423998

Goss, K., & Allan, S. (2010). Compassion focused therapy for eating disorders. *International Journal of Cognitive Therapy*, *3*(2), 141–158. http://dx.doi.org.colorado.idm.oclc.org/10.1521/ijct.2010.3.2.141

Jones, W. H., Schratter, A. K., & Kugler, K. (2000). The Guilt Inventory. *Psychological Reports*, *87*(3, Pt 2), 1039–1042. http://dx.doi.org.colorado.idm.oclc.org/10.2466/PR0.87.7.1039-1042

Leddy, M. A., Jones, C., Morgan, M. A., & Schulkin, J. (2009). Eating disorders and obstetric-gynecologic care. *Journal of Women's Health*, *18*(9), 1395–1401. http://dx.doi.org.colorado.idm.oclc.org/10.1089/jwh.2008.1183

Meltzer, A. L., & McNulty, J. K. (2010). Body image and marital satisfaction: Evidence for the mediating role of sexual frequency and sexual satisfaction. *Journal of Family Psychology*, *24*(2), 156–164. http://dx.doi.org.colorado.idm.oclc.org/10.1037/a0019063

Micali, N., De Stavola, B., Ploubidis, G. B., Simonoff, E., & Treasure, J. (2014). The effects of maternal eating disorders on offspring childhood and early adolescent psychiatric disorders. *International Journal of Eating Disorders*, *47*(4), 385–393. http://dx.doi.org.colorado.idm.oclc.org/10.1002/eat.22216

Mickelson, K. D., & Joseph, J. A. (2012). Postpartum body satisfaction and intimacy in first-time parents. *Sex Roles*, *67*(5–6), 300–310. http://dx.doi.org.colorado.idm.oclc.org/10.1007/s11199-012-0192-9

Milhausen, R. R., Buchholz, A. C., Opperman, E. A., & Benson, L. E. (2015). Relationships between body image, body composition, sexual functioning, and sexual satisfaction among heterosexual young adults. *Archives of Sexual Behavior*, *44*(6), 1621–1633. http://dx.doi.org.colorado.idm.oclc.org/10.1007/s10508-014-0328-9

Muñoz, M. E., & Ferguson, C. J. (2012). Body dissatisfaction correlates with inter-peer competitiveness, not media exposure: A brief report. *Journal of Social and Clinical Psychology*, *31*(4), 383–392. http://dx.doi.org.colorado.idm.oclc.org/10.1521/jscp.2012.31.4.383

Murray, L., Cooper, P. J., & Stein, A. (1991). Postnatal depression and infant development. TL - 302. *BMJ (Clinical Research Ed.)*, *302*(6783), 978–979. https://doi.org/10.1136/BMJ.302.6783.978

Neff, K. D. (2003). The development and validation of a scale to measure self-compassion. *Self and Identity*, *2*(3), 223–250. http://dx.doi.org.colorado.idm.oclc.org/10.1080/15298860309027

Ohoka, H., Koide, T., Goto, S., Murase, S., Kanai, A., Masuda, T., … Ozaki, N. (2014). Effects of maternal depressive symptomatology during pregnancy and the postpartum period on infant–mother attachment. *Psychiatry and Clinical Neurosciences*, *68*(8), 631–639. http://dx.doi.org.colorado.idm.oclc.org/10.1111/pcn.12171

Paap, C. E., & Gardner, R. M. (2011). Body image disturbance and relationship satisfaction among college students. *Personality and Individual Differences*, *51*(6), 715–719. http://dx.doi.org.colorado.idm.oclc.org/10.1016/j.paid.2011.06.019

Patel, P., Lee, J., Wheatcroft, R., Barnes, J., & Stein, A. (2005). Concerns about body shape and weight in the postpartum period and their relation to women's self-identification. *Journal of Reproductive and Infant Psychology*, *23*(4), 347–364. http://dx.doi.org.colorado.idm.oclc.org/10.1080/02646830500273657

Pavot, W., & Diener, E. (2008). The Satisfaction With Life Scale and the emerging construct of life satisfaction. *The Journal of Positive Psychology*, *3*(2), 137–152. http://dx.doi.org.colorado.idm.oclc.org/10.1080/17439760701756946

Pike, K. M., & Rodin, J. (1991). Mothers, daughters, and disordered eating. *Journal of Abnormal Psychology*, *100*(2), 198–204. http://dx.doi.org.colorado.idm.oclc.org/10.1037/0021-843X.100.2.198

Pujols, Y., Meston, C. M., & Seal, B. N. (2010). The association between sexual satisfaction and body image in women. *Journal of Sexual Medicine*, *7*(2, Pt 2), 905–916. http://dx.doi.org.colorado.idm.oclc.org/10.1111/j.1743-6109.2009.01604.x

Rallis, S., Skouteris, H., Wertheim, E. H., & Paxton, S. J. (2007). Predictors of body image during the first year postpartum: A prospective study. *Women & Health*, *45*(1), 87–104. http://dx.doi.org.colorado.idm.oclc.org/10.1300/J013v45n01_06

Righetti-Veltema, M., Bousquet, A., & Manzano, J. (2003). Impact of postpartum depressive symptoms on mother and her 18-month-old infant. *European Child & Adolescent Psychiatry; New York*, *12*(2), 75–83. http://dx.doi.org.colorado.idm.oclc.org/10.1007/s00787-003-0311-9

Rizvi, S. L. (2010). Development and preliminary validation of a new measure to assess shame: The Shame Inventory. *Journal of Psychopathology and Behavioral Assessment*, *32*(3), 438–447. http://dx.doi.org.colorado.idm.oclc.org/10.1007/s10862-009-9172-y

Silveira, M. L., Ertel, K. A., Dole, N., & Chasan-Taber, L. (2015). The role of body image in prenatal and postpartum depression: A critical review of the literature. *Archives of Women's Mental Health*, *18*(3), 409–421. http://dx.doi.org.colorado.idm.oclc.org/10.1007/s00737-015-0525-0

Skouteris, H., Carr, R., Wertheim, E. H., Paxton, S. J., & Duncombe, D. (2005). A prospective study of factors that lead to body dissatisfaction during pregnancy. *Body Image*, *2*(4), 347–361. http://dx.doi.org.colorado.idm.oclc.org/10.1016/j.bodyim.2005.09.002

Spanier, G. B. (1976). Measuring Dyadic Adjustment: New Scales for Assessing the Quality of Marriage and Similar Dyads. *Journal of Marriage and the Family*, *38*(1), 15–25.

Stein, A., Murray, L., Copper, P., & Fairburn, C. G. (1996). Infant growth in the context of maternal eating disorders and maternal depression: A comparative study. *Psychological Medicine*, *26*(3), 569–574. http://dx.doi.org.colorado.idm.oclc.org/10.1017/S0033291700035649

Stein, A., Woolley, H., Cooper, S. D., & Fairburn, C. G. (1994). An observational study of mothers with eating disorders and their infants. *Child Psychology & Psychiatry & Allied Disciplines*, *35*(4), 733–748. http://dx.doi.org.colorado.idm.oclc.org/10.1111/j.1469-7610.1994.tb01218.x

Stice, E. (2002). Risk and maintenance factors for eating pathology: A meta-analytic review. *Psychological Bulletin*, *128*(5), 825–848. http://dx.doi.org.colorado.idm.oclc.org/10.1037/0033-2909.128.5.825

Sweeney, A. C., & Fingerhut, R. (2013). Examining relationships between body dissatisfaction, maladaptive perfectionism, and postpartum depression symptoms. *Journal of Obstetric, Gynecologic, & Neonatal Nursing: Clinical Scholarship for the Care of Women, Childbearing Families, & Newborns*, *42*(5), 551–561. http://dx.doi.org.colorado.idm.oclc.org/10.1111/1552-6909.12236

Thompson, J. K., Heinberg, L. J., Altabe, M., & Tantleff-Dunn, S. (1999). *Exacting beauty: Theory, assessment, and treatment of body image disturbance*. American Psychological Association (Washington, DC, US). Retrieved from https://search-proquest-com.colorado.idm.oclc.org/psycinfo/docview/619393296/90994B28DEA041B0PQ/36

Troop, N. A., Allan, S., Serpell, L., & Treasure, J. L. (2008). Shame in women with a history of eating disorders. *European Eating Disorders Review*, *16*(6), 480–488. http://dx.doi.org.colorado.idm.oclc.org/10.1002/erv.858

Wasylkiw, L., MacKinnon, A. L., & MacLellan, A. M. (2012). Exploring the link between self-compassion and body image in university women. *Body Image*, *9*(2), 236–245. http://dx.doi.org.colorado.idm.oclc.org/10.1016/j.bodyim.2012.01.007

Watson, B., Fuller-Tyszkiewicz, M., Broadbent, J., & Skouteris, H. (2017). Development and validation of a tailored measure of body image for pregnant women. *Psychological Assessment*, *29*(11), 1363–1375. http://dx.doi.org.colorado.idm.oclc.org/10.1037/pas0000441