Body-specific Co-rumination: Relationship with Anxiety, Self-esteem, and Body Dissatisfaction in College Women

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Abstract

Body-specific co-rumination, or excessively discussing body-related problems with a best friend, is a new and unstudied construct that is theorized to be related to negative outcomes with three dependent variables: anxiety, self-esteem, and body dissatisfaction. Interaction models were used to assess whether appearance-contingent self-worth and social comparison were moderators of the relation between body-specific co-rumination and the three dependent variables. Participants were 441 college-aged women who completed an online survey. Results indicate that body-specific co-rumination is associated with anxiety (positively), self-esteem (negatively), and body dissatisfaction (positively). The moderator model with appearance-contingent self-worth was not supported; however, the interaction of body-specific co-rumination and social comparison was significant in identifying levels of anxiety and body dissatisfaction. Women who reported high levels of body-specific co-rumination and social comparison endorsed the highest levels of anxiety and body dissatisfaction. These findings support previous research that general co-rumination is an anxiety-producing experience and add to the growing body of research on co-rumination. Future directions and clinical implications are discussed.
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Body-specific Co-rumination: Relationship with Anxiety, Self-esteem, and Body Dissatisfaction in College Women

Co-rumination, or excessively discussing problems, is a fairly new and complex construct in psychological research. Several aspects of co-rumination include mutual dyadic encouragement of problem talk, rehashing problems, speculating about problems, and focusing on negative affect (Rose, 2002). Co-rumination is associated with adaptive and maladaptive social, emotional, and physical outcomes, particularly in girls and women. For example, co-rumination is associated with the positive outcome of greater friendship quality, but also the negative outcomes of depression, anxiety, and increased stress hormones (Byrd-Craven, Geary, Rose, & Ponzi, 2008; Rose, 2002; Rose, Carlson, & Waller, 2007). Previous research indicates that females co-ruminate more than males and only females experience increased anxiety and general internalizing symptoms associated with this behavior (Rose, Carlson, & Waller, 2007; Schwartz-Mette & Rose, 2012; Tompkins, Hockett, Abraibesh, & Witt, 2011).

Previous research on co-rumination has only focused on general problem talk. To our knowledge, no studies exist that examine co-ruminating about specific problems, especially those that may be salient to women, such as body and appearance concerns. Female conversations are generally based on rapport-building activities like showing similarities and matching experiences. Nichter (2000) notes that discussing perceived body inadequacies provides one way to build such rapport. Given the sociocultural pressure to be thin from mass media, family, and peers (Stice, Maxfield, & Wells, 2002) and the fact that women in Western cultures are often evaluated based on appearance (Stice & Bearman, 2001), it is no wonder that women’s bodies become the focus of problem-talk. Body-specific co-rumination, or excessively discussing problems specifically related to the body and eating, is a proposed construct designed...
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to capture the types of co-rumination females engage in related to body concerns. In this study we will examine the relationship between body-specific co-rumination and anxiety, self-esteem, and body dissatisfaction. Furthermore, we will investigate whether these relationships are moderated by appearance-contingent self-worth and social comparison.

While body-specific co-rumination is a new and unstudied construct, it synthesizes aspects of several related constructs – co-rumination, fat talk, and self-objectification. As noted, general co-rumination, as has been examined so far, lacks the specificity of body-specific co-rumination. Fat talk, or “highly ritualized conversation… involving explicit negative self-statements, physical appearance complaints, and weight management tips” (Martz, Petroff, Curtin, & Bazzini, 2009, p.34) captures aspects of negatively-valenced body talk. However, fat talk is much more public and social (e.g., often engaged in with multiple friends at a time) than co-rumination which is done with a close friend in a dyadic format. On the other hand, self-objectification, which refers to viewing one’s body as an object, taking on the others’ (an outsider’s) perspective of one’s body, and focusing on the body’s appearance rather than functions (Breines, Crocker, & Garcia, 2008), reflects a focus on appearance, but on an intrapersonal, non-interactive level. Given the novelty of body-specific co-rumination, we will review literature on the related constructs of general co-rumination, fat talk, and self-objectification in relation to our outcomes of interest: anxiety, self-esteem, and body dissatisfaction.

Co-rumination, Fat Talk, and Self-objectification in Relation to Anxiety, Self-esteem, and Body Dissatisfaction

The relationship between co-rumination and anxiety is well-documented. Of note, only females experience increased levels of anxiety the more they engage in co-rumination, while
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their male counterparts only experience greater friendship quality as a result of this behavior (Rose et al., 2007; Tompkins et al., 2011). Rose suggests that the relationship between co-rumination and anxiety is particularly detrimental because it can create a snowball effect whereby increases in anxiety foster increased co-rumination which in turn contributes to more anxiety (Rose et al., 2007). To our knowledge, no research has examined relations between co-rumination and either self-esteem or body dissatisfaction.

Empirical work supports negative effects of fat talk and, due to the similarities between fat talk and body-specific co-rumination, such work provides some theoretical insight about the effects of negatively focused body conversations. First, fat talk is associated with increased body dissatisfaction and sociocultural pressure to be thin (Arroyo & Harwood, 2012; Tucker, Martz, Curtin, & Bazzini, 2007). Second, Arroyo and Harwood (2012) also found that although fat talk did not specifically predict decreased self-esteem over time, it did mediate the relationships between body dissatisfaction and self-esteem as well as between pressure to be thin and self-esteem, suggesting that fat talk may be a mechanism linking body image issues with broader self-concept concerns. Research also shows that body dissatisfaction predicts increased fat talk, suggesting a cyclical “snowball effect” similar to that of co-rumination and anxiety (Arroyo & Harwood, 2012). To date, no research has examined fat talk in relation to anxiety.

Self-objectification, or the internalization of the observer’s (an outsider’s) perspective of the body as an object meant to be evaluated, may at first seem unrelated to body-specific co-rumination. However, some researchers propose that interpersonal conversations about weight concerns, eating concerns, and physical appearance are “social extensions and behavioral manifestations” of self-objectification, especially because these conversations are plagued with self-criticism (Arroyo & Harwood, 2012, p. 170). In this light, body-specific co-rumination can
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be thought of as repeatedly engaging in self-objectification with a close psychological other, or best friend. Self-objectification and body surveillance (the behavioral manifestation of self-objectification) are related to appearance anxiety, body shame, and disordered eating (Tiggemann & Williams, 2012). Increased self-objectification is also associated with decreased self-esteem and decreased well-being in general, suggesting that when women view their bodies and appearance from an outsider’s perspective, they feel worse (Breines et al., 2008). Given the theoretical link between self-objectification and body-specific co-rumination, body-specific co-rumination will likely also have damaging effects in the realms of anxiety, self-esteem, and body dissatisfaction.

Interactive Models: Appearance-contingent Self-worth and Social Comparison as Moderators

Some women may be especially vulnerable to the anxiety, low self-esteem, and body dissatisfaction that body-specific co-rumination is thought to produce, while other women may be less affected and even view these conversations as casual chatting with a friend. Appearance-contingent self-worth and social comparison may be moderators that explain women’s different experiences and consequences of body-specific co-rumination.

A contingency of self-worth is a domain in which a person stakes his or her sense of value, with self-esteem depending on successes or failures in that domain (Crocker & Wolfe, 2001). Appearance-contingent self-worth is a contingency in which one evaluates oneself based on physical appearance (Crocker, Luhtanen, Cooper, & Bouvrette, 2003). External contingencies of self-worth, like appearance-contingent self-worth, are related to low self-esteem, body dissatisfaction, and eating disorder symptoms (Bailey & Ricciardelli, 2010; Sanchez & Crocker, 2005). Furthermore, women with high appearance-contingent self-worth and low self-esteem feel
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worse as a result of self-objectification than those with low appearance-contingent self-worth and those with high appearance-contingent self-worth and high self-esteem. Thus, it is important to note that appearance-contingent self-worth can affect women’s state self-esteem differently, depending on the extent to which women stake their self-worth in their appearance (Breines et al., 2008). Theoretically, if women have high appearance-contingent self-worth then co-ruminating on body flaws will affect overall self-esteem and body dissatisfaction more than women with low appearance-contingent self-worth.

Social comparison is another potential moderator of the relationship between body-specific co-rumination and anxiety, self-esteem, and body dissatisfaction. According to Festinger’s (1954) social comparison theory, people are driven to compare themselves to others in order to obtain accurate self-appraisals. Previous research shows that when women socially compare themselves, especially to images of thin women, they experience increased body anxiety and increased anxiety in general (Dittmar & Howard, 2004; Lin & Kulik, 2002). The relationship between social comparison and body dissatisfaction is particularly well-documented. In general, engaging in every day social comparison is related to eating disorder symptoms (Corning, Krumm, & Smitham, 2006). Specifically, making appearance-related social comparisons is associated with increased body shame and body image disturbance (Myers, Ridolfi, Crowther, & Ciesla, 2012; Tylka & Sabik, 2010). Furthermore, women tend to make self-critical body comparisons which are associated with lower body esteem (Franzoi, Vasquez, Sparapani, Frost, Martin, & Aebly, 2012). Thus, women who co-ruminate about their bodies and compare their bodies to others may be more susceptible to negative outcomes regarding anxiety, self-esteem and body dissatisfaction than women who engage in body-specific co-rumination but do not tend to engage in social comparison.
The current study tests three hypotheses: 1) Higher levels of body-specific co-rumination with a close friend will be associated with higher levels of anxiety, lower levels of self-esteem, and higher levels of body dissatisfaction; 2) Appearance-contingent self-worth will moderate these relationships such that the combination of high levels of body-specific co-rumination and high appearance-contingent self-worth will identify the most negative outcomes in terms of anxiety, self-esteem, and body dissatisfaction; and 3) Social comparison will moderate these relationships such that the combination of high levels of body-specific co-rumination and high levels of social comparison will identify the most negative outcomes in terms of anxiety, self-esteem, and body dissatisfaction.

Method

Participants

Participants were 441 female undergraduate college students from a large, public Southeastern university who were recruited from an introductory psychology course. The mean age was 18.71 years (SD = 1.01). Based on self-report, the sample was 73.2% Caucasian/White, 9.1% African American/Black, 5% Asian, 8% Hispanic/Latina, and 4.7% other/multiple races/ethnicities. The average body mass index (BMI) for participants was 22.39 kg/m² (SD = 3.73). The mean highest level of parental education attained (a proxy for socioeconomic status) was 17.01 years (SD = 2.67), which is the equivalent of about one year of post-baccalaureate schooling.

Procedure

Participants completed a survey in a quiet place of their choosing (e.g., their homes). After giving electronic consent, participants answered questionnaires pertaining to body-specific
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co-rumination habits, anxiety, self-esteem, body dissatisfaction, appearance-contingent self-worth, social comparison, and other measures related to peers and body image using the Qualtrics survey program. The survey took approximately 45 minutes to an hour to complete. Upon completion participants received an electronic debriefing and research credit for their psychology course for participation in the study. The study was approved by the university’s Institutional Review Board.

Measures

**Body-specific co-rumination.** The measure of body-specific co-rumination was adapted from Rose’s (2002) measure of co-rumination by adding phrasing related to weight and eating. The modified measure asks about co-rumination behaviors on the topics of weight, eating, and feelings about one’s body with the subject’s best or closest female friend. The original phrasing of Rose’s (2002) measure was kept as intact as possible. For example, the original item “When one of us has a problem, we talk to each other about it for a long time” was changed to “When one of us initiates discussion about her weight problems or issues, we talk to each other about it for a long time.” Our 9-item measure was rated on a 5-point Likert scale (1 = Not at all true to 5 = Really true), with higher scores reflecting greater body-specific co-rumination with one’s closest female friend. Previous research using Rose’s co-rumination measure has shown good internal consistency (e.g., α = .97; Rose et al., 2007) in a sample of male and female children and adolescents. In the present study α = .90.

**Anxiety.** Trait anxiety was assessed using the Spielberger Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, & Lushene, 1970). This 20-item measure contains questions pertaining to feelings such as restlessness, nervousness, and tension and is scored on a 4-point Likert scale (1 = almost never to 4 = almost always), with higher scores indicating greater levels
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of anxiety. In previous research the STAI has shown high internal consistency (e.g. mean $\alpha = .91$; Barnes, Harp, & Jung, 2002). Previous research also demonstrates the STAI’s construct validity. For example, responses to the state anxiety scale vary given different stressors, but responses to the trait anxiety scale remain stable (Hedberg, 1972). The trait anxiety scale also distinguishes individuals with anxiety disorders from those without anxiety disorders (Watson & Clark, 1984) and correlates highly with other negative affectivity measures (Taylor, Koch, & McNally, 1992). In the present study $\alpha = .94$.

**Self-esteem.** Trait self-esteem was assessed using the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965). This 10-item measure is scored on a 4-point Likert scale ($1 = strongly agree$ to $4 = strongly disagree$), and recoded so that higher scores indicate higher self-esteem. A sample item is, “On the whole, I am satisfied with myself.” Previous research with college women has shown high internal consistency ($\alpha = .93$) and good convergent validity with another measure of self-esteem (Tylka & Sabik, 2010). In the present study $\alpha = .92$.

**Body Dissatisfaction.** Body dissatisfaction was measured using the Weight Concern and Shape Concern subscales of the Eating Disorder Examination-Questionnaire (EDE-Q; Fairburn & Beglin, 2008). The 12 items that make up these two subscales assess weight and shape dissatisfaction over the past 28 days; items are scored from 0 to 6 ($0 = no days$ to $6 = every day$ or $0 = not at all$ to $6 = markedly$, depending on the question), with higher scores indicating greater weight and shape concerns. A sample item is “On how many of the past 28 days have you felt fat?” Previous research with the Weight Concern and Shape Concern subscales in college women has shown good internal consistency (alphas of .89-.93, Luce & Crowther, 1999). There is also evidence of convergent validity for this age group, with an interview measure of
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weight and shape concern correlating significantly with the questionnaire version (Grilo, Masheb, & Wilson, 2001). In the current sample $\alpha = .95$.

**Appearance-contingent self-worth.** Appearance contingent self-worth was assessed with the appearance subscale of Crocker’s contingencies of self-worth questionnaire (Crocker et al., 2003). This 5-item subscale is scored on a 7-point Likert scale ($1 = strongly disagree$ to $7 = strongly agree$), with higher scores reflecting greater appearance contingent self-worth. A sample item is “When I think I look attractive, I feel good about myself.” Crocker et al. (2003) reported good construct and discriminant validity in a sample of college students for all contingencies of self-worth subscales (including appearance) and specifically noted that it is distinct from other measures of self-esteem. Previous research with the appearance subscale in a female college student sample yielded a coefficient alpha of .72 (Thøgersen-Ntoumani, Ntoumanis, Cumming, & Chatzisarantis, 2011). In the present study $\alpha = .76$.

**Social comparison.** Social comparison was measured using the Body, Eating, and Exercise Comparison Orientation Measure (BEECOM; Fitzsimmons-Craft, Bardone-Cone, & Harney, 2012). This 18-item measure is scored on a 7-point Likert scale ($1 = never$ to $7 = always$), with higher scores indicating more social comparison. A sample item is “I pay attention to whether or not I am as thin as, or thinner than, my peers.” Fitzsimmons-Craft et al. reported good internal consistency and construct validity in college women, including high correlations with other measures of social comparison. In the present study $\alpha = .97$.

**Data Analysis Plan**

Descriptive analyses were performed to obtain means and standard deviations of the study variables. To evaluate the hypothesis about body-specific co-rumination’s relationship with anxiety, self-esteem, and body dissatisfaction, we ran correlational analyses to identify
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significant correlations. To test the hypotheses of the moderator models, hierarchical multiple regression analyses were conducted following the guidelines in Cohen, Cohen, West, and Aiken (2003) and centering the continuous variables entering in interactions (Frazier, Tix, & Barron, 2004). In Step 1, the independent variables of body-specific co-rumination and the moderator (e.g., appearance-contingent self-worth) were entered simultaneously, and in Step 2, the two-way interaction of body-specific co-rumination and the moderator (e.g., body-specific co-rumination x appearance-contingent self-worth) were entered. These same steps were used in a separate analysis with social comparison as the moderator. Separate regression analyses were run for the dependent variables of anxiety, self-esteem, and body dissatisfaction. Significant interactions were graphed to identify the nature of the interaction. For dependent variables significantly correlated with BMI, the regression analyses included BMI as a covariate.

Results

The means, standard deviations, and correlations for the study variables are presented in Table 1. The mean level of body-specific co-rumination observed in this sample of undergraduate women was close to 2, indicating low levels of body-specific co-rumination on average, although the full range from 1 to 5 was represented in the sample. Body-specific co-rumination was significantly, positively related to both moderators: appearance contingent self-worth ($r = .28, p < .001$) and social comparison ($r = .50, p < .001$). Furthermore, both moderators were significantly correlated with anxiety (positively), self-esteem (negatively), and body dissatisfaction (positively). BMI was significantly correlated with anxiety and body dissatisfaction, but not self-esteem; thus, regression analyses involving anxiety and body dissatisfaction controlled for BMI.
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Relations Between Body-specific Co-rumination and Anxiety, Self-esteem, and Body

Dissatisfaction

As predicted, body-specific co-rumination was significantly positively correlated with anxiety ($r = .30, p < .001$), significantly negatively correlated with self-esteem ($r = -.29, p < .001$), and significantly positively correlated with body dissatisfaction ($r = .47, p < .001$), as seen in Table 1.

Interactive Models Involving Body-specific Co-rumination and Appearance-contingent Self-worth

None of the interactions between body-specific co-rumination and appearance-contingent self-worth yielded significant results, as seen in Table 2. Specifically, the interaction of body-specific co-rumination and appearance-contingent self-worth was not significant in identifying levels of anxiety ($t(417) = .25, \Delta R^2 = .00, p = .802$), self-esteem ($t(424) = -.42, \Delta R^2 = .00, p = .673$) or body dissatisfaction ($t(431) = -.26, \Delta R^2 = .00, p = .794$).

Interactive Models Involving Body-specific Co-rumination and Social Comparison

The interaction of body-specific co-rumination and social comparison was significant in identifying levels of anxiety ($t(378) = 2.13, \Delta R^2 = .01, p = .034$) (see Table 3). Figure 1 depicts the nature of this interaction, with high and low levels of the independent variables determined by using one standard deviation above and one standard deviation below the mean, respectively, for all figures. Women who reported high levels of body-specific co-rumination and high levels of social comparison exhibited the greatest amount of anxiety.

The interaction of body-specific co-rumination and social comparison was not significant in identifying levels of self-esteem ($t(384) = -1.02, \Delta R^2 = .002, p = .309$) (see Table 3).
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The interaction of body-specific co-rumination and social comparison was significant in identifying levels of body dissatisfaction ($t(388) = 1.98, \Delta R^2 = .004, p = .048$) (see Table 3). The nature of this interaction is shown in Figure 2, demonstrating that women who reported high levels of body-specific co-rumination and high levels of social comparison exhibited the greatest amount of body dissatisfaction.

Discussion

The current study examined a new construct, body-specific co-rumination, or repeatedly engaging in appearance-focused problem talk with a best friend, and its relationship with three key variables: anxiety, self-esteem, and body dissatisfaction. We also examined the interactions between body-specific co-rumination and the hypothesized moderators of appearance-contingent self-worth and social comparison. Findings indicated that body-specific co-rumination is associated with the three dependent variables as predicted, and that the combination of high body-specific co-rumination and high social comparison is particularly detrimental for young women in terms of anxiety and body dissatisfaction.

Body-specific co-rumination is positively related to anxiety, negatively related to self-esteem, and positively related to body dissatisfaction. Body-specific co-rumination’s positive association with anxiety aligns with Rose’s (2002; 2007) findings that broader co-rumination is an anxiety-producing activity and demonstrates that co-ruminating about a specific problem (i.e., the body) is also related to anxiety. The associations found between body-specific co-rumination and self-esteem and body dissatisfaction are novel within co-rumination research, which has previously focused on anxiety, depression, friendship quality, and stress (Byrd-Craven, Geary, Rose, & Ponzi, 2008; Rose, 2002; Rose, Carlson, & Waller, 2007). Further research is required
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to test the directionality between body-specific co-rumination, and co-rumination in general, and anxiety, self-esteem, body dissatisfaction, and other areas of self-concept.

The interaction of body-specific co-rumination and appearance-contingent self-worth did not yield any significant findings in identifying levels of anxiety, self-esteem, or body dissatisfaction. One possible explanation for the lack of a significant interaction has to do with the phrasing used in the body-specific co-rumination measure. For instance, many questions use the pronoun “we,” as in “When we talk about weight, eating, or the way we feel about our bodies, we’ll talk about it over and over.” This phrasing does not allow us to tease out whether one friend is doing more talking or listening. While appearance-contingent self-worth and body-specific co-rumination are positively correlated, perhaps women who are high in appearance-contingent self-worth do more listening than talking in co-ruminating conversations as a way to protect a domain that their self-worth is staked on (their appearance) and thus are also protected some from co-rumination’s negative. Perhaps a group with high appearance-contingent self-worth who does talk negatively about their bodies in a co-ruminating way would exhibit the highest levels of anxiety and body dissatisfaction and the lowest levels of self-esteem. Additional research with a modified questionnaire that explicitly assesses the degree of talking and listening in body-specific co-rumination or follow-up questions is essential, however, to test this theory.

Unlike the interactive model with appearance-contingent self-worth, the combination of body-specific co-rumination and the moderator social comparison did identify levels of two of the three key dependent variables: anxiety and body dissatisfaction. In particular, women who scored high in body-specific co-rumination and high in social comparison exhibited the highest levels of anxiety and body dissatisfaction. On the other hand, women who less intensely engaged in both body-specific co-rumination and social comparison appear to be “protected” from anxiety
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and body dissatisfaction. This significant interactive model holds promise for clinical implications in treating women struggling with body image concerns or anxiety. For example, should the relationship between the variables be causal, altering either behavior (body-specific co-rumination or social comparison) should alleviate symptoms of anxiety and body dissatisfaction. These findings also open the door for researching links between social comparison and both general co-rumination and other content-specific co-rumination, which could examine many problems women face and perhaps compare and co-ruminate about in their daily lives (e.g., relationships, work, family, etc.). As for the non-significant interaction of body-specific co-rumination and social comparison in identifying levels of self-esteem, we note that the relationship between general co-rumination and self-esteem has never been examined and further research is needed to see if these results can be replicated.

One major strength of this study is its novelty in relation to previous research on co-rumination. First off, body-specific co-rumination is a completely new construct that has never been examined before, even though excessively discussing body-related problems with a close friend is a familiar phenomenon to most women and, indeed, is partially characterized by fat talk (Arroyo & Harwood, 2012). Another novel aspect of the current study is the sample of college-aged women, as most co-rumination research has focused on children and adolescents. Furthermore, testing moderator models with variables like social comparison and appearance-contingent self-worth that have never been studied with co-rumination adds nuance to this research. Also, while research on co-rumination has examined its relationship with anxiety, to the author’s knowledge there have been no studies on its relationship with self-esteem or body dissatisfaction. An additional strength of this study is the large sample size \( N = 441 \) which provided enough power to detect significant interactions.
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One limitation of this study is its cross-sectional design. Although associations emerged between body-specific co-rumination and anxiety, self-esteem, and body dissatisfaction, the nature of the relationships is correlational and causation cannot be established. Another limitation is generalizability; using a sample of college women aged 18-25 means that the results may not generalize to other age groups or to non-college, same-aged peers. A final limitation comes from using a modified measure for body-specific co-rumination. Although the measure of body-specific co-rumination does not have well-established psychometrics, the measure was modified from a measure with strong psychometric support and the alpha in our sample was excellent (α = .90).

Future research should implement an experimental design to test whether body-specific co-rumination has any causal effects on anxiety, self-esteem, and body dissatisfaction. Particular attention should be paid to scenarios involving social comparison as this moderator yielded significant results in the current study. Also, future research may want to test the efficacy of interventions warning women against the potential negative outcomes associated with body-specific co-rumination and social comparison on their own and in combination. Future studies should also test whether depression and greater friendship quality are related to body-specific co-rumination given that more general co-rumination is related to these outcomes (Rose, 2007).

In sum, body-specific co-rumination is related to the negative experiences of anxiety, low self-esteem, and body dissatisfaction for college-aged women. The combination of high levels of body-specific co-rumination and high social comparison is associated with the highest levels of anxiety and body dissatisfaction. The conversations that female friends engage in about their bodies may have negative consequences, especially when they are ruminative in nature and social comparison is a factor.


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Rose, A. J., Carlson, W., & Waller, E. M. (2007). Prospective associations of co-rumination with friendship and emotional adjustment: Considering the socioemotional trade-offs of co-
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Table 1

**Correlations, Means, and Standard Deviations of Study Variables (N = 441)**

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<th>M/SDs</th>
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<td><strong>M = 1.82</strong> SD = .78</td>
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<td>2. Appearance-contingent SW</td>
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<td><strong>M = 5.12</strong> SD = .94</td>
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<td>3. Social comparison (BEECOM)</td>
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<td><strong>M = 66.99</strong> SD = 23.15</td>
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<td>4. Anxiety (STAI)</td>
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<td>.52***</td>
<td>.48***</td>
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<td><strong>M = 41.74</strong> SD = 11.05</td>
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<td>5. Self-esteem (RSES)</td>
<td>-.29***</td>
<td>-.46***</td>
<td>-.43***</td>
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<td><strong>M = 31.00</strong> SD = 5.61</td>
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<td>6. Body Dissatisfaction (EDE-Q)</td>
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<td><strong>M = 2.33</strong> SD = 1.59</td>
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<td>7. BMI</td>
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<td><strong>M = 23.39</strong> SD = 3.72</td>
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</tbody>
</table>

*Note. SW = self-worth. BEECOM = Body, Eating, and Exercise Comparison Orientation Measure. STAI = Spielberger Trait Anxiety Inventory. RSES = Rosenberg Self-Esteem Scale. EDE-Q = Eating Disorder Examination-Questionnaire. BMI = body mass index. Higher scores reflect higher levels of the construct. Possible ranges for the study variables are as follows: Body-specific co-rumination (1-5), Appearance-contingent self-worth (1-7), BEECOM (18-126), STAI (20-80), RSES (4-40), EDE-Q (0-6). *p < .05. **p < .01. ***p < .001.*
Hierarchical Multiple Regression Analyses Testing Interactive Models Involving Body-specific Co-rumination and Appearance-contingent Self-worth with Dependent Variables of Anxiety, Self-esteem, and Body Dissatisfaction

<table>
<thead>
<tr>
<th>Step and predictors</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>t (dfs)</th>
<th>ΔR²</th>
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<tbody>
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<td>DV= Anxiety</td>
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<tr>
<td>BMI</td>
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<td>.15</td>
<td>.11*</td>
<td>2.33 (1, 420)</td>
<td>.01*</td>
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<td>.314</td>
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<tr>
<td>BMI</td>
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<td>.02</td>
<td>.38***</td>
<td>8.52 (1,434)</td>
<td>.14***</td>
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<td>.38***</td>
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<tr>
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<td>.08</td>
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Note. DV = dependent variable. BMI = body mass index. SW=self-worth. Regression analyses with the dependent variables of anxiety and body dissatisfaction controlled for BMI given the significant bivariate relations between BMI and each of these two dependent variables. * p < .05. *** p < .001.
### Table 3

_Hierarchical Multiple Regression Analyses Testing Interactive Models Involving Body-Specific Co-rumination and Social Comparison with Dependent Variables of Anxiety, Self-esteem, and Body Dissatisfaction_

<table>
<thead>
<tr>
<th>Step and predictors</th>
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<th>SE B</th>
<th>( \beta )</th>
<th>t (dfs)</th>
<th>( \Delta R^2 )</th>
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<td>.01*</td>
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<tr>
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<td>.15</td>
<td>.11*</td>
<td>2.17 (1, 381)</td>
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<td>.03</td>
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*Note.* DV = dependent variable. BMI = body mass index. Regression analyses with the dependent variables of anxiety and body dissatisfaction controlled for BMI given the significant bivariate relations between BMI and each of these two dependent variables. * * * * p < .05. ** p < .01. *** p < .001.
Figure 1. Interactive findings demonstrating how social comparison moderates the relationship between body-specific co-rumination and anxiety after controlling for body mass index.
**Figure 2.** Interactive findings demonstrating how social comparison moderates the relationship between body-specific co-rumination and body dissatisfaction after controlling for body mass index.